

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	01. Automotive Display for Extreme Environmental Challenges
Session Date:	August 20 (Wed.), 2025
Session Time:	09:00-10:05
Session Room:	Room A (211~213)
Session Chair(s):	Dr. JiHo Baek (LG Display Co., Ltd., Korea) Dr. Mike Weaver (UDC, USA)

[A01-1] [Invited]

09:00-09:25

Automotive Displays: Challenges & Solutions for Safe Driving & Enjoyable Ride

Karlheinz Blankenbach (Pforzheim Univ., Germany)

[A01-2] [Invited]

09:25-09:50

Trends and LC Material Development for Automotive LCDs

Achim Goetz, Sven Christian Laut (Merck Electronics KGaA, Germany), and Dong-Mee Song (Merck Performance Materials Ltd., Korea)

[A01-3]

09:50-10:05

Source and Drain Electrodes Affecting Stress Stability for Thin-Film Transistors

Sungsoo Park and Byoungdeog Choi (Sungkyunkwan Univ., Korea)

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	02. Ultra-High-Resolution Micro Display I
Session Date:	August 20 (Wed.), 2025
Session Time:	09:00-10:05
Session Room:	Room B (214~216)
Session Chair(s):	Dr. Hyunsu Cho (ETRI, Korea) Prof. Donggu Lee (Gyeongsang Nat'l Univ., Korea)

[B02-1] [Invited]

09:00-09:25

Ultra-High-Resolution OLEDoS Microdisplays with RGB Direct Patterning for Immersive Reality

Dongwan Ha, Sug Woo Jung, Sang Hwan Cho, Jae Beom Choi (Samsung Display Co., Ltd., Korea), Hyuksang Kwon, and Amalkumar Ghosh (eMagin Corp., USA)

[B02-2] [Invited]

09:25-09:50

Silicon Nitride Masks for Advanced Patterning

Shou-Cheng Dong (Hong Kong Univ. of Science and Tech., Hong Kong & WISPO Advanced Materials (Suzhou) Co., Ltd., China)

[B02-3]

09:50-10:05

Optical Simulation Method for Micro-OLEDs: Reflecting 3D Effects Including Micro-Lens Array and Pixel Define Layer

Seyoung Yoon, Kyungmin Kim, Junho Kim, Youngjin Song, Seonjeong Lee, Byunghyun Kim (KAIST, Korea), Zhaoning Yu, Donghee Nam, Jacob (Minhyuk) Choi (Meta Platforms Inc., USA), and Seunghyup Yoo (KAIST, Korea)

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	03. Display Circuits and Driving Technologies
Session Date:	August 20 (Wed.), 2025
Session Time:	09:00–10:25
Session Room:	Room C (217)
Session Chair(s):	Prof. Suk-Ju Kang (Sogang Univ., Korea) Prof. Hyongsik Nam (Kyung Hee Univ., Korea)

[C03-1] [Invited]

09:00–09:25

Inter-Hierarchy Simulation for Display Performance Analysis and System Technology Co-Optimization

Yu Huang, Wei Tang, and Xiaojun Guo (Shanghai Jiao Tong Univ., China)

[C03-2]

09:25–09:40

A Robust α -IGZO TFT-Based AMOLED Pixel Circuit under VTH, Subthreshold Swing and Mobility Variations

Minji Kim, Chanjin Park, and Soo-Yeon Lee (Seoul Nat'l Univ., Korea)

[C03-3]

09:40–09:55

Improved Power Structure for Enhanced Image Quality of AMOLED Displays at Low Luminance Levels

Dong Jun Kim (Yonsei Univ. & LG Display Co., Ltd., Korea), I. Sak Lee, Hyun Kyu Lee (LG Display Co., Ltd., Korea), Jae Seong Yun, Young Wook Kim (Yonsei Univ., Korea), Se Hwan Na, Young Ju Park, Hong Soo Kim, Sang Yoon Park (LG Display Co., Ltd., Korea), and Hyun Jae Kim (Yonsei Univ., Korea)

[C03-4]

09:55–10:10

LTPO-Based Compensation-Time-Control (CTC) Pixel Circuit for High Uniformity AMOLED Variable Refresh Rate Displays

Younsik Kim, Jiwoo You, and Jaemyung Lim (Hanyang Univ., Korea)

[C03-5]

10:10–10:25

Micro Light-Emitting Diode Pixel Circuit with Fast Falling Time by Feedback Structure

Jeeho Jeong, Kook Chul Moon, and Yong-Sang Kim (Sungkyunkwan Univ., Korea)

Session Title:	04. Dynamic Form Factor Displays: Backplane
Session Date:	August 20 (Wed.), 2025
Session Time:	09:00-10:30
Session Room:	Room D (218)
Session Chair(s):	Prof. Jimin Kwon (UNIST, Korea) Prof. Jaeyoung Jang (Hanyang Univ., Korea)

[D04-1] [Invited]

09:00-09:25

Stretchable TFTs and Photodiodes for Free-Form Electronics

Gae Hwang Lee, Hyunbum Kang, Yasutaka Kuzumoto, Hyungjun Kim, Joo-Young Kim, Sung-Gyu Kang, Kyunghun Kim, Jong Won Chung (Samsung Electronics, Korea), Sungjun Park (Ajou Univ., Korea), Yungjun Yun (Hallym Univ., Korea), and Tae-Gon Kim (Samsung Electronics, Korea)

[D04-2] [Invited]

09:25-09:50

Flexible Two-Dimensional Transition Metal Dichalcogenide Transistors

Alwin Daus (Univ. of Stuttgart, Germany) and Quỳnh Thị Phùng (Univ. of Freiburg, Germany)

[D04-3] [Invited]

09:50-10:15

Heterogeneous Integration Using Freestanding Gallium Nitride and Organic Thin Film Transistors

Yeongin Kim (Univ. of Cincinnati, USA), Zhenan Bao (Stanford Univ., USA), and Jeehwan Kim (MIT, USA)

[D04-4]

10:15-10:30

Flexible and Stable OLED Displays Enabled on Diverse Textiles through Parylene-C Planarization

Jingi An and Kyung Cheol Choi (KAIST, Korea)

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	05. TFT Technology
Session Date:	August 20 (Wed.), 2025
Session Time:	09:00-10:25
Session Room:	Room E (311~312)
Session Chair(s):	Prof. Jun Takeya (The Univ. of Tokyo, Japan) Prof. Hyun Suk Kim (Dongguk Univ., Korea)

[E05-1] [Featured Invited]

09:00-09:30

Efficiency, Wavelength, and Speed Considerations for MicroLEDs in Display and Non-Display Applications

Ioannis Kymissis, Oliver Durnan, and Megan Noga (Columbia Univ., USA)

[E05-2] [Invited]

09:30-09:55

Ferroelectric Thin Film Transistors and Their Applications

Wenwu Li (Fudan Univ., China), Fucui Liu (Univ. of Electronic Sci. and Tech. of China, China), and Junhao Chu (Fudan Univ., China)

[E05-3]

09:55-10:10

Optimization to Obtain Grain-Boundary-Free Crystal Si Formation

Satoshi Takayama, Nobuo Sasaki (Nara Inst. of Sci. and Tech. & Sasaki Consulting, Japan), and Yukiharu Uraoka (Nara Inst. of Sci. and Tech., Japan)

[E05-4]

10:10-10:25

High-Performance α -IGZO TFT Using Solution Combustion Synthesis High-k Al_2O_3 and HfO_2 Hybrid Gate Insulator

Dian Budiarti Kastian, Juan Paolo Bermundo, Candell Grace Paredes Quino, and Yukiharu Uraoka (Nara Inst. of Science and Tech., Japan)

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	06. AI for Display Manufacturing
Session Date:	August 20 (Wed.), 2025
Session Time:	09:00-10:25
Session Room:	Room F (313)
Session Chair(s):	Prof. Injung Kim (Handong Global Univ., Korea) Ms. Hwayoun You (Samsung Display Co., Ltd., Korea)

[F06-1] [Invited]

09:00-09:25

Generative AI for Image and Video Enhancement: Case Studies

Injung Kim (Handong Global Univ., Korea)

[F06-2] [Invited]

09:25-09:55

Time Series Anomaly Detection for Robotic Arms in Display Manufacturing

Kaushik Balakrishnan, Qisen Cheng, Kasra Yazdani (Samsung Display America Lab, USA),
Hwayoun You, Yunyoung Kyung, Younggil Jin, and Jaewon Kim (Samsung Display Co., Ltd., Korea)

[F06-3]

09:55-10:10

A Study on the Numerical Analysis of Piezo Inkjet Print Head to Improve Jetting Uniformity

Si-Ung Kim and Kwan-Young Han (Dankook Univ., Korea)

[F06-4]

10:10-10:25

Machine Learning-Assisted Multi-Scale Simulation for Charge Transfer in Organic Thin Films

Tianhao Tan, Lian Duan, and Dong Wang (Tsinghua Univ., China)

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	07. Printing Technology
Session Date:	August 20 (Wed.), 2025
Session Time:	09:00–10:30
Session Room:	Room G (314~315)
Session Chair(s):	Dr. Myung Soo Huh (Samsung Display Co., Ltd., Korea) Dr. Kwan Hyun Cho (KITECH, Korea)

[G07-1] [Invited]

09:00–09:25

Aerosol Jet Printing for Display Relevant Nanomaterials: from Color Converting Quantum Dots to Printable Transistors

Joseph Andrews (Univ. of Wisconsin–Madison, USA)

[G07-2] [Invited]

09:25–09:50

Inkjet Printing of Hybrid Two-Dimensional Materials Suspended in Electronic Inks for Thin-Film Transistor Fabrication

William S. Wong (Univ. of Waterloo, Canada)

[G07-3] [Invited]

09:50–10:15

From Ink Rheology to Jetting: Engineering Functional Inks for High-Performance Display Printing

Sungjune Jung (POSTECH, Korea)

[G07-4]

10:15–10:30

Electrical Resistance Characteristics of Printed Ag Nanowire Electrode on Pre-Stretched Silicone Rubber Film

Yoon Jae Moon (KITECH, Korea), Jiyeong Kong (KITECH & Korea Univ., Korea), Dong Yeol Shin (KITECH, Korea), Byeong Kwon Ju (Korea Univ., Korea), and Kyung-Tae Kang (KITECH, Korea)

IMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	08. Future Micro LED Technology
Session Date:	August 20 (Wed.), 2025
Session Time:	09:00-10:35
Session Room:	Room H (316~317)
Session Chair(s):	Prof. Young Joon Hong (Sungkyunkwan Univ., Korea) Prof. Daewon Lee (Hanyang Univ., Korea)

[H08-1] [Featured Invited]

09:00-09:30

Advancements and Strategies for Enhancing Efficiency in MicroLED Displays

Chia-Hung Tsai, Yang-En Wu, Fang-Chung Chen (Nat'l Yang Ming Chiao Tung Univ., Taiwan),
and Hao-Chung Kuo (Nat'l Yang Ming Chiao Tung Univ. & Hon Hai Research Inst., Taiwan)

[H08-2] [Invited]

09:30-09:55

Micro-LED Displays Fabricated Chip-First, Enabled by Low-Temperature Organic Transistor Technology

Simon Ogier, Doil Kim (Smartkem Ltd., UK), and Steven Tsai (Smartkem Ltd., Taiwan)

[H08-3] [Merck Young Scientist Award]

09:55-10:20

Toward Highly Efficient and High-Resolution MicroLED Display on CMOS

Sanghyeon Kim (KAIST, Korea)

[H08-4]

10:20-10:35

A New Micro-LED and OLED Hybrid Red Sub-Pixel Circuit and Hybrid ALCC (Auto Luminance and Color Calibration) Technology

Junghoon Kim and Ji-Won Lee (LX Semicon, Korea)

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	09. Materials and Devices for Extreme Environmental Challenges
Session Date:	August 20 (Wed.), 2025
Session Time:	10:50-12:20
Session Room:	Room A (211~213)
Session Chair(s):	Prof. Jae-Min Kim (Chung-Ang Univ., Korea) Prof. Wan Pyo Hong (Gachon Univ., Korea)

[A09-1] [Invited]	10:50-11:15
--------------------------	--------------------

OLED Displays 2.0

Michael S. Weaver (Universal Display Corp., USA)

[A09-2] [Invited]	11:15-11:40
--------------------------	--------------------

Improving Fluorescent Blue OLEDs Through Advanced Development Approaches in Materials and Device Design

Masato Nakamura, Satomi Tasaki (Idemitsu Kosan Co., Ltd., Japan), Tsukasa Sawato (Idemitsu Advanced Materials Korea Co., Ltd., Korea), Keitaro Yamada, Masayuki Nakagaki, and Emiko Kambe (Idemitsu Kosan Co., Ltd., Japan)

[A09-3] [Invited]	11:40-12:05
--------------------------	--------------------

Modulating MR-TADF Emitters by Non-Covalent Interactions via Spiro Structure

Yang-Kun Qu, Qi Zheng, and Zuo-Quan Jiang (Soochow Univ., China)

[A09-4]	12:05-12:20
----------------	--------------------

Optimization of Gamma Performance over Temperature for Organic Light Emitting Device in Automotive Application

Xing Huang, Bing Zhang, Zi-Liang Xue, and Bin-Feng Feng (BOE Technology Group Co., Ltd., China)

Session Title:	10. Ultra-High-Resolution Micro Display II
Session Date:	August 20 (Wed.), 2025
Session Time:	10:50-12:20
Session Room:	Room B (214~216)
Session Chair(s):	Prof. Hyunkoo Lee (Sookmyung Women's Univ., Korea) Dr. Chan-mo Kang (ETRI, Korea)

[B10-1] [Invited]	10:50-11:15
--------------------------	--------------------

Strategies for Cost Effective Manufacturing of High Resolution MicroLED Displays for AR Applications

J. Vertommen, S. Steudel, L. Bach, and H. Hashempour (Micledi Microdisplays BV, Belgium)

[B10-2] [Invited]	11:15-11:40
--------------------------	--------------------

Directional and Color-Pure Light Emission from RGB Organic Devices for Extended Reality Displays

A. Mohammed, A. Mikaeili, R. Taniguchi, H. Ishidai, S. Terakawa, T. Yoshizumi, M. Auffray, and F. Bencheikh (KOALA Tech. Inc., Japan)

[B10-3] [Invited]	11:40-12:05
--------------------------	--------------------

Colloidal Quantum Dot Lasing Using Continuous-Wave Excitation

Donghyo Hahm, Changjo Kim, Tung H. Dang, Valerio Pinchetti, Clement Livache, Junho Kim, and Victor I. Klimov (Los Alamos Nat'l Lab., USA)

[B10-4]	12:05-12:20
----------------	--------------------

Design of a 0.24-Inch 2-Mega Pixel LCoS Display for XR Devices with 3um Pixel

Eunsu Kim, Bonggu Hwang, Wook Hong, Junghwan Ki, and Joon Goo Lee (RAONTECH, Korea)

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	11. Display Systems for High-Performance XR
Session Date:	August 20 (Wed.), 2025
Session Time:	10:50-12:10
Session Room:	Room C (217)
Session Chair(s):	Prof. Hojin Lee (Soongsil Univ., Korea) Prof. Sung In Cho (Dongguk Univ., Korea)

[C11-1] [Invited]	10:50-11:15
--------------------------	--------------------

Design Challenges and Solutions for Source Driver ICs in OLED-on-Silicon (OLEDoS) Microdisplays

Junghwan Oh, Dong-Kun Lee, and Jong-Seok Kim (Hanyang Univ., Korea)

[C11-2]	11:15-11:30
----------------	--------------------

A 7T1C 5644 PPI OLED on Silicon Pixel Circuit with 1.2V and 5.5V Transistors in 28nm CMOS Process

Hyeon-Ji Lee and Byong-Deok Choi (Hanyang Univ., Korea)

[C11-3]	11:30-11:45
----------------	--------------------

Supporting Field Sequential Color Displays with MIPI DPHY/DSI to Use a Standard Video Interface for XR Applications

Wook Hong, Bonggu Hwang, Kiyong Kwon, and Joon Goo Lee (RAONTECH, Korea)

[C11-4] [Invited]	11:45-12:10
--------------------------	--------------------

Digital Human Avatars in Medical XR: Enhancing Visualization and Interaction with Glasses-Free 3D

Nan Zhang (Chinese Academy of Sciences, China)

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	12. Dynamic Form Factor Displays: Frontplane
Session Date:	August 20 (Wed.), 2025
Session Time:	10:50-12:25
Session Room:	Room D (218)
Session Chair(s):	Prof. Yeongjun Lee (KAIST, Korea) Prof. Jiheong Kang (Seoul Nat'l Univ., Korea)

[D12-1] [Featured Invited]

10:50-11:20

Stretchable and High-Efficiency OLED

Sihong Wang (Univ. of Chicago, USA)

[D12-2] [Invited]

11:20-11:45

From Flexibility to Stretchability in OLED Lighting and Displays Enabled by Engineered 3D Deformation of Ultra-Flexible OLEDs

Hanul Moon (Dong-A Univ., Korea)

[D12-3] [Invited]

11:45-12:10

Deformable Stretchable LED Display Using Liquid Metal Electrodes

Masashi Miyakawa and Mitsuru Nakata (NHK Science & Tech. Research Labs., Japan)

[D12-4]

12:10-12:25

Intrinsically Stretchable Phosphorescence Light-Emitting Diodes with Small Molecule Emissive Layer

Ajay Nimbalkar, Min Seo Kim, and Min Chul Suh (Kyung Hee Univ., Korea)

Session Title:	13. Organic Semiconductor Devices
Session Date:	August 20 (Wed.), 2025
Session Time:	10:50-12:10
Session Room:	Room E (311~312)
Session Chair(s):	Prof. Yan Zhao (Fudan Univ., China) Prof. Myung-Gil Kim (Sungkyunkwan Univ., Korea)

[E13-1] [Invited]	10:50-11:15
--------------------------	--------------------

Large-Area Flexible Active Matrices with Organic Single-Crystal TFTs and Scalable Mini-LED Displays

Jun Takeya (The Univ. of Tokyo & Organo-circuit Inc., Japan)

[E13-2] [Invited]	11:15-11:40
--------------------------	--------------------

Aggregation State and Electrical Properties Study of Polymer Semiconductors

Yan Zhao (Fudan Univ., China)

[E13-3]	11:40-11:55
----------------	--------------------

Ambipolar Thin-Film Transistors for Optoelectronic Applications and Logic Circuits

Yongju Lee (Univ. of Seoul, Korea & Univ. of Paris, France), Seungyeon Koh, and Hyeok Kim (Univ. of Seoul, Korea)

[E13-4]	11:55-12:10
----------------	--------------------

Low-Voltage Organic Multimodal Transistors

Eva Bestelink (Univ. of Surrey, UK), Andreas Petritz, Herbert Gold, Christine Prietl, Bernhard Kleinburger, Barbara Stadlober (JOANNEUM RESEARCH Forschungsgesellschaft mbH, Austria), and Radu A. Sporea (Univ. of Surrey, UK)

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	14. AI for Efficient Display Design
Session Date:	August 20 (Wed.), 2025
Session Time:	10:50-11:50
Session Room:	Room F (313)
Session Chair(s):	Dr. Mathew Halls (Schrödinger, Inc., USA) Mr. Young Wook Yoo (Samsung Display Co., Ltd., Korea)

[F14-1] [Invited]

10:50-11:20

From Molecules to Displays: A Digital Chemistry Platform Uniting Physics-Based Simulation with Machine Learning for Optoelectronic Design

Mathew D. Halls, H. Shaun Kwak , Hadi Abroshan, Kevin B. Moore III, Eric M. Collins, Alex K. Chew, Jack Weber, and Anand Chandrasekaran (Schrödinger Inc., USA)

[F14-2]

11:20-11:35

FHD-to-UHD: An Energy Efficient and Lightweight Deep Learning-Based High-Performance Image Upscaler for Display TCON Integration

Young Wook Yoo, Young Seoung Kim, and Jae Won Kim (Samsung Display Co., Ltd., Korea)

[F14-3]

11:35-11:50

Machine Learning-Based Wobulation for Automotive Headlight Projectors: High-Speed Generation of Subpixel-Shifted Images

ChangHi Lee, Myeong-Ho Choi, and Jae-Hyeung Park (Seoul Nat'l Univ., Korea)

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	15. Thin Film Technology
Session Date:	August 20 (Wed.), 2025
Session Time:	10:50-12:30
Session Room:	Room G (314~315)
Session Chair(s):	Dr. Seongjun Lee (Samsung Display Co., Ltd., Korea) Dr. Seung-Ho Choi (ULVAC, Korea)

[G15-1] [Invited]	10:50-11:15
--------------------------	--------------------

Low Temperature ALD Processes for OLED and Quantum Dot Encapsulation

J.C.S.Kools (Encapsulix, France)

[G15-2]	11:15-11:30
----------------	--------------------

Mechanical Stress Stability Improvement by Fluorine Doping in Flexible Dual-Gate IGZO TFTs

Peidong Li, Jilin Li, Yuhan Zhang (Peking Univ., China), Yushen Hu, Fion Yeung, Man Wong (HKUST, Hong Kong), Xinwei Wang, Shengdong Zhang, Yufeng Jin, and Lei Lu (Peking Univ., China)

[G15-3]	11:30-11:45
----------------	--------------------

TiN/Al Low-Resistance Gate Metallization for High-Resolution Bendable Display

Junghoon Yang, Mingu Ji, Junsu Lee, JungHo Bang, JongSeon Yoo, and Jong-Uk Bae (LG Electronics Inc., Korea)

[G15-4]	11:45-12:00
----------------	--------------------

Selective Enhancement of Carrier Mobility and Concentration through Hydrogen Plasma Doping: Low-Temperature PEALD Deposition of High Performance TCO Films

Tae-Kyung Kim, Ji-Hyun Gwoen, Hae-Dam Kim, and Jin-Seong Park (Hanyang Univ., Korea)

[G15-5]	12:00-12:15
----------------	--------------------

Improved Mobility and High Reliability Characteristics of 1:1:1 Composition IGZO Using PEALD

Haklim Koo, Seo-Yeong Kim, Sang-Hyun Kim, Tae Heon Kim, and Jin-Seong Park (Hanyang Univ., Korea)

[G15-6]	12:15-12:30
----------------	--------------------

Experiments and Simulation of Evaporation Process Conditions for 10th Generation OLED Manufacturing Applying Inductive Heating Technology

Heeyoon Lee (SVMTECH, Korea), Wanho Lee, Taeyoung Ha (Nat'l Inst. for Mathematical Sciences, Korea), Youngwoo Ahn, Yeonjun Jeong, Kisu Kim, Taehyeong Kim, Kwangseop Jeon, and Sihyun Lee (SVMTECH, Korea)

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	16. Micro LED Display Manufacturing Technology
Session Date:	August 20 (Wed.), 2025
Session Time:	10:50-11:55
Session Room:	Room H (316~317)
Session Chair(s):	Prof. Hobeom Kim (GIST, Korea) Dr. Ja-Yeon Kim (KOPTI, Korea)

[H16-1] [Invited]

10:50-11:15

Study on Micro-LED Arrays for Visible Light Communication Devices

Ray-Hua Horng and Po-Chiao Wang (Nat'l Yang Ming Chiao Tung Univ., Taiwan)

[H16-2] [Invited]

11:15-11:40

Stretchable Micro-LED Displays based on Kirigami Electronics and Scalable Transfer Techniques

Bongkyun Jang, Hyeon-Don Kim (KIMM & UST, Korea), Hyesun Park, Son Minh Nguyen (UST, Korea), Seojin Hong (KIMM & UST, Korea), Dawoon Jo (KIMM, Korea), Minwoo Joshua Kweon, Mikyung Lim, Kyung-Shik Kim, Jaegu Kim (KIMM, Korea), Kwang-Seop Kim (KIMM & UST, Korea), and Jae-Hyun Kim (KIMM & UST, Korea)

[H16-3]

11:40-11:55

MicroLED's Critical Functional Testing Points for Standard and Micro-Displays

Noam Shapiro and Tali Hurvitz (InZiv Ltd., Israel)

Session Title:	17. Current Status of QD Electroluminescent Displays
Session Date:	August 21 (Thu.), 2025
Session Time:	09:00-10:30
Session Room:	Room A (211~213)
Session Chair(s):	Prof. Seong-Yong Cho (Hanyang Univ., Korea) Prof. Jaehoon Lim (Sungkyunkwan Univ., Korea)

[A17-1] [Invited]

09:00-09:25

Why Do QD-LEDs Have Great Potential for QD-Based Electroluminescent Displays?

Armin Wedel, Yohan Kim, Jiyong Kim, and Manuel Gensler (Fraunhofer IAP, Germany)

[A17-2] [Invited]

09:25-09:50

Improvement of Inkjet-Printed Quantum Dot Light Emitting Diodes

Yunhyuk Ko, Changyeol Han, Sooho Lee, Yun Ku Jung, Jungcho Cho, Dongjin Kang, Donghoon Kwak, Sehun Kim, Jaekook Ha, Yeo-geon Yoon, and Changhee Lee (Samsung Display Co., Ltd., Korea)

[A17-3] [Invited]

09:50-10:15

Highly Stable and Efficient QD-LEDs for Automotive Applications

Chansu Kim and Yu-Ho Won (Moplat Inc., Korea)

[A17-4]

10:15-10:30

Direct Patterning of Colloidal InP Quantum Dots via Photoligation-Assisted Photolithography

Hansol Seo (Seoul Nat'l Univ., Korea), Syed Zahid Hassan (POSTECH, Korea), Yeonjun Kim (Seoul Nat'l Univ., Korea), Taesoo Lee (Seoul Nat'l Univ. & Inha Univ., Korea), Geun Woo Baek (Seoul Nat'l Univ., Korea & Northwestern Univ., USA), Chan So, Dae Sung Chung (POSTECH, Korea), and Jeonghun Kwak (Seoul Nat'l Univ., Korea)

IMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	18. OLED Future Materials I
Session Date:	August 21 (Thu.), 2025
Session Time:	09:00-10:05
Session Room:	Room B (214~216)
Session Chair(s):	Dr. Kobe Man Chung Tang (Tsinghua Univ., China) Prof. Sunwoo Kang (Dankook Univ., Korea)

[B18-1] [Invited]

09:00-09:25

Electroluminescent Copper Iodide Clusters

Hui Xu, Jianan Sun, Ying Li, and Nan Zhang (Heilongjiang Univ., China)

[B18-2] [Invited]

09:25-09:50

High-Efficiency Organic Emitters for Solution Processable OLED

Xiaolong Liu (Changzhou Univ., China), Lei Hua (Sungkyunkwan Univ., Korea), Xiaoyi Lai (Changzhou Univ., China), Ji Hun Kim (Sungkyunkwan Univ., Korea), Qinyu Zhu (Changzhou Univ., China), Jun Yeob Lee (Sungkyunkwan Univ., Korea), Weiguo Zhu, and Yafei Wang (Changzhou Univ., China)

[B18-3]

09:50-10:05

Optical Scattering and Index Matching Approach for Enhanced Microcavity OLED Performance

Young Rok Kim (Kyung Hee Univ., Korea), Jihee Son, Seungyong Song (Samsung Display Co., Ltd., Korea), and Min Chul Suh (Kyung Hee Univ., Korea)

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	19. Advanced Optical Components for AR/VR/MR
Session Date:	August 21 (Thu.), 2025
Session Time:	09:00-10:20
Session Room:	Room C (217)
Session Chair(s):	Dr. Yuichi Hiroi (Cluster Inc., Japan) Dr. Dongyeon Kim (Univ. of Cambridge, UK)

[C19-1] [Invited]

09:00-09:25

Diffraction Viewing Optics for Compact AR/VR Near-Eye Displays

Chulwoo Oh, Shuojia Shi, Jihwan Kim, Kory Green, Mengfei Wang, Ali Altaqui, Xinyue Zhang, Yang Zhao, Lu Lu, and Michael Escuti (Meta Platforms Inc., USA)

[C19-2] [Invited]

09:25-09:50

Scalable Augmented Reality Optics by DigiLens Inc.

Hyesog (Joe) Lee and Alastair Grant (DigiLens Inc., USA)

[C19-3]

09:50-10:05

Wide-FOV and Depth-Variable Pancake VR Enabled by a Light Field Display Engine

Qimeng Wang, Yifan Ding, Mingjing Wang, Bo-Ru Yang, and Zong Qin (Sun Yat-Sen Univ., China)

[C19-4]

10:05-10:20

Design, Fabrication and Printing Conditions of HOE Printer toward Large Screen

Kaisei Sugiyama (Tokushima Univ., Japan), Munekazu Date (Tokushima Bunri Univ., Japan), Haruki Mizushima (Tokushima Univ. & Shinshu Univ., Japan), and Kenji Yamamoto (Tokushima Univ., Japan)

IMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	20. Dynamic Form Factor Displays: Sensors and Applications
Session Date:	August 21 (Thu.), 2025
Session Time:	09:00-10:15
Session Room:	Room D (218)
Session Chair(s):	Prof. Byeongmoon Lee (DGIST, Korea) Dr. Taewoong Kim (Samsung Display Co., Ltd., Korea)

[D20-1] [Invited]

09:00-09:25

Intrinsically Stretchable On-Skin Electronic Devices

Naoji Matsuhisa (The Univ. of Tokyo, Japan)

[D20-2] [Invited]

09:25-09:50

Stretchable and Sustainable Electronic Polymers and Their Autonomous Design

Jie Xu (Univ. of Chicago & Argonne Nat'l Lab., USA)

[D20-3] [Invited]

09:50-10:15

Patterning and Processing of Liquid Metal Conductors towards Highly Deformable Display

Hiroki Ota (Yokohama Nat'l Univ., Japan)

IMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	21. Crystalline Semiconductor Devices I
Session Date:	August 21 (Thu.), 2025
Session Time:	09:00-10:20
Session Room:	Room E (311~312)
Session Chair(s):	Prof. Mamoru Furuta (Koichi Univ. of Tech., Japan) Prof. Hocheon Yoo (Hanyang Univ., Korea)

[E21-1] [Invited]	09:00-09:25
--------------------------	--------------------

Stabilized High-Mobility In_2O_3 TFTs Using Epitaxial Y_2O_3 Passivation

Yusaku Magari (Kochi Univ. of Tech., Japan)

[E21-2] [Invited]	09:25-09:50
--------------------------	--------------------

Atomically Ordered ALD Oxides Semiconductors TFTs for High Mobility, Low-Temperature Display Integration

Yoon-Seo Kim and Jin-Seong Park (Hanyang Univ., Korea)

[E21-3]	09:50-10:05
----------------	--------------------

High-Performance Indium Gallium Oxide Thin-Film Transistors with Ultra Thin Atomic Layer Deposition Channel

Juyu Li, Shengjie Yang, Lei Lu, Xinwei Wang, and Shengdong Zhang (Peking Univ., China)

[E21-4]	10:05-10:20
----------------	--------------------

Enhanced Bias-Illumination Stability of Indium Gallium Oxide Thin-Film Transistors

Shuheng Fu, Shengjie Yang, Yufeng Jin (Peking Univ., China), Meng Zhang, Yan Yan, Guijun Li (Shenzhen Univ., China), Xinwei Wang, Shengdong Zhang, and Lei Lu (Peking Univ., China)

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	22. AI for Display Inspection
Session Date:	August 21 (Thu.), 2025
Session Time:	09:00–10:25
Session Room:	Room F (313)
Session Chair(s):	Prof. Hogun Park (Sungkyunkwan Univ., Korea) Dr. Rahul Shenoy (Samsung Display Co., Ltd., America Lab, USA)

[F22-1] [Invited]	09:00–09:30
-------------------	-------------

Zero-Shot Defect Transfer in Display Backplanes Using Diffusion Models

Rahul Shenoy, Zhihong Pan, Kaushik Balakrishnan (Samsung Display Co., Ltd., America Lab, USA), Yongmoon Jeon, Heejune Yang, and Jaewon Kim (Samsung Display Co., Ltd., Korea)

[F22-2] [Invited]	09:30–09:55
-------------------	-------------

Leveraging Multimodal Large Language Models for Advanced Anomaly Detection and Defect Analysis

Hyunju Kang, Woohyun Lee, and Hogun Park (Sungkyunkwan Univ., Korea)

[F22-3]	09:55–10:10
---------	-------------

Analysis of Ink Flow Using Artificial Intelligence in 200ppi Sub-Pixel Display based on Inkjet Printing Process

Sung Jun Park, Jin Hong Park, Seong Woo Jeong, Seok Hwan Jang (Gyeongsang Nat'l Univ., Korea), Kunsik An (Sejong Univ., Korea), and Jun Young Kim (Gyeongsang Nat'l Univ., Korea)

[F22-4]	10:10–10:25
---------	-------------

3D Profile Prediction for Inkjet-Printed OLEDs Thin Film from Microscopic Image Using Deep Learning

Dong Yeol Shin (Korea Univ. & KITECH, Korea), Youngwook Noh, Kwan Hyun Cho (KITECH, Korea), Byeong-Kwon Ju (Korea Univ., Korea), and Kyung-Tae Kang (KITECH, Korea)

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	23. Advanced Manufacturing I
Session Date:	August 21 (Thu.), 2025
Session Time:	09:00-10:20
Session Room:	Room G (314~315)
Session Chair(s):	Dr. Myung Soo Huh (Samsung Display Co., Ltd., Korea) Dr. Doyoung Byun (Sungkyunkwan Univ., Korea)

[G23-1] [Invited]	09:00-09:25
--------------------------	--------------------

UV Laser Technologies Are Key to Producing State-of-the-Art OLED and MicroLED Displays
Oliver Haupt (Coherent, Germany)

[G23-2] [Invited]	09:25-09:50
--------------------------	--------------------

Quantitative Phase Retrieval from Intensity-Based Measurements
Yongjun Lim (ETRI, Korea)

[G23-3]	09:50-10:05
----------------	--------------------

Refractive Index and Thickness Measurement of the Internal Adhesive Layer in Touchscreens based on Spectroscopic Reflectometry
Jaeseok Bae, Joonyoung Lee, Jonghan Jin, and Jungjae Park (Meter-Lab. Inc., Korea)

[G23-4]	10:05-10:20
----------------	--------------------

The System Employs a Galvanometric Scanning Mirror to Steer the Incident Beam across Various Target Angles
Ruud Bouten (Admesy B.V., The Netherlands) and Sungyun Kang (Admesy Technologies Asia, Korea)

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	24. Innovative Full Color Technology
Session Date:	August 21 (Thu.), 2025
Session Time:	09:00-10:30
Session Room:	Room H (316~317)
Session Chair(s):	Prof. Yong-Ho Ra (Jeonbuk Nat'l Univ., Korea) Dr. Gi-Dong Sa (KOPTI, Korea)

[H24-1] [Invited]

09:00-09:25

Development of GaInN-Based Stacked Monolithic RGB Full-Color μ LED Arrays with a Step-Free Structure

Motoaki Iwaya, Tetsuya Takeuchi, and Satoshi Kamiyama (Meijo Univ., Japan), Daisuke Iida, and Kazuhiro Ohkawa (KAUST, Saudi Arabia)

[H24-2] [Invited]

09:25-09:50

Anisotropic Conductive Adhesive (ACA) for Assembly of Microscale LEDs and Heat Release

Tae-il Kim (Sungkyunkwan Univ., Korea)

[H24-3] [Invited]

09:50-10:15

Monolithic Full-Color InGaN Micro-LEDs

Anda Cheng, Zhibiao Hao, Changzheng Sun, Bing Xiong, Jian Wang, Yanjun Han, Hongtao Li, Lin Gan, Yi Luo, and Lai Wang (Tsinghua Univ., China)

[H24-4]

10:15-10:30

Low-Power, High-Speed Micro-LED Display with Full Oxide CMOS Backplane and Seamless Tiling via Selective LLO

Jae-Eun Pi, Ji Hun Choi, Yong-Duck Kim, Sooji Nam, Kyunghee Choi, Jae Won Na, Himchan Oh, Hee-Ok Kim, Junyeong Kim, Seung-Youl Kang, In-Bok Baek, and Jong-Heon Yang (ETRI, Korea)

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	25. Fundamentals of QDs
Session Date:	August 21 (Thu.), 2025
Session Time:	11:00-12:35
Session Room:	Room A (211~213)
Session Chair(s):	Prof. Kunsik An (Sejong Univ., Korea)

[A25-1] [Featured Invited]

11:00-11:30

Effective Use of AI-Assisted Autonomous Reaction System for Quantum Dot

Taekhoon Kim, Jooyeon Ahn (Samsung Advanced Inst. of Tech., Korea), Ho-Gyeong Kim, So Eun Choi, Young-Seok Kim (Samsung Electronics Co., Ltd., Korea), and Tae-Gon Kim (Samsung Advanced Inst. of Tech., Korea)

[A25-2] [Invited]

11:30-11:55

Devices Analysis of QLED: Methodology and Models

Haizheng Zhong (Beijing Inst. of Tech., China)

[A25-3] [Invited]

11:55-12:20

Temperature-Dependent Energy Transfer Dynamics in $\text{InP}/\text{Mn}_x\text{Zn}_{1-x}\text{S}$ Core/Shell Quantum Dots

Eunbyeol Gi, Britney Jiang, Kaela Liu, and Jacob H. Olshansky (Amherst College, USA)

[A25-4]

12:20-12:35

Ultrahigh Current-Density Deep-Blue Light Emitting Diodes Employing Non-Toxic Continuously Graded Quantum Dots

Seongjae Kang, Seungmin Han, Ho Seok Heo, Kangtaek Lee, and Namyong Ahn (Yonsei Univ., Korea)

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	26. OLED Blue Materials I
Session Date:	August 21 (Thu.), 2025
Session Time:	11:00-12:35
Session Room:	Room B (214~216)
Session Chair(s):	Prof. Yafei Wang (Changzhou Univ., China) Prof. Wan Pyo Hong (Gachon Univ., Korea)

[B26-1] [Featured Invited]

11:00-11:30

Stable Blue OLEDs based on TADF Sensitized Fluorescence

Lian Duan (Tsinghua Univ., China)

[B26-2] [Invited]

11:30-11:55

Phosphor-Assisted TADF-Sensitized Fluorescence (pTSF) Unlocking the Full Potential of Ultrabright OLEDs

Hai Zhang, Lian Duan, and Dongdong Zhang (Tsinghua Univ., China)

[B26-3] [Invited]

11:55-12:20

Realizing Narrowband, Angle-Independent and Efficient TADF OLEDs via Polaritons and Assistant Strong Coupling Layers

Andreas Mischok, Simon Lennartz, Vanessa Gruber, Francisco Tenopala-Carmona, Julia Witt, and Sabina Hillebrandt (Univ. of Cologne, Germany), and Malte C. Gather (Univ. of Cologne, Germany & Univ. of St Andrews, UK)

[B26-4]

12:20-12:35

A Way toward the Design of Exciplex Hosts for Blue OLEDs

Chang-Ki Moon (Seoul Nat'l Univ., Korea & Univ. of Cologne, Germany), Hyungcheol Lim (Seoul Nat'l Univ., Korea), and Jang-Joo Kim (Seoul Nat'l Univ., Korea)

IMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	27. Young Leaders Conference I
Session Date:	August 21 (Thu.), 2025
Session Time:	11:00-12:40
Session Room:	Room C (217)
Session Chair(s):	Prof. Young Joon Hong (Sungkyunkwan Univ., Korea)

[C27-1]	11:00-11:20
---------	-------------

Next-Generation Light Sources Using Colloidal Quantum Dots Showing Suppression of Auger Recombination

Namyoung Ahn (Yonsei Univ., Korea)

[C27-2]	11:20-11:40
---------	-------------

Advanced Fluidic Self-Assembly Techniques for High-Density MicroLED Chip Transfer

Daewon Lee (Hanyang Univ., Korea)

[C27-3]	11:40-12:00
---------	-------------

Systematic Charge Balance Modulation for High-Performance Quantum Dot Light-Emitting Diodes

Taesoo Lee (Inha Univ., Korea), Kwangkeun Lee, Taewoong Yoo, and Jeonghun Kwak (Seoul Nat'l Univ., Korea)

[C27-4]	12:00-12:20
---------	-------------

Optical Design of Perovskite and Quantum-Dot Displays Distinguishable from Organic Emitters

Changsoon Cho (POSTECH, Korea)

[C27-5] [Kim Yong-Bae Award - Grand Prize]	12:20-12:40
--	-------------

Synthesis and Analysis of p-Type Nickel Oxide-Based Nanocrystals for All-Inorganic Quantum Dot Electroluminescent Devices

Woon Ho Jung (Sungkyunkwan Univ., Korea)

Session Title:	28. Electro-Optical Switching Devices
Session Date:	August 21 (Thu.), 2025
Session Time:	11:00-12:25
Session Room:	Room D (218)
Session Chair(s):	Prof. Satoshi Aya (South China Univ. of Tech., China) Dr. Quanming Chen (Southern Univ. of Science and Tech., China)

[D28-1] [Featured Invited]

11:00-11:30

Efficient Large-Area Chiral Liquid Crystal Devices for Large-Angle Diffraction: Technology and Applications

Kristiaan Neyts (Hong Kong Univ. of Science and Tech., Hong Kong), Migle Stebryte (Ghent Univ., Belgium), Rohan Sharma (Hong Kong Univ. of Science and Tech., Hong Kong & Ghent Univ., Belgium), Xu Ke, Pouya Nosrathkhan, Tao Zhou, Le Zhou (Hong Kong Univ. of Science and Tech., Hong Kong), and Inge Nys (Ghent Univ., Belgium)

[D28-2] [Invited]

11:30-11:55

Effect of Amorphous Crosslinkers on Phase Behavior and Electrooptic Response of Polymer-Stabilized Blue Phase Liquid Crystals

Kyung Min Lee (Air Force Research Lab. & Core4ce, USA), Timothy J. Bunning, and Michael E. McConney (Air Force Research Lab., USA)

[D28-3]

11:55-12:10

Optical Microfluidic Sensors with Functional Liquid Crystal Materials

Kun-Lin Yang and Zongdai Liu (Nat'l Univ. of Singapore, Singapore)

[D28-4]

12:10-12:25

Liquid Crystal Smart Windows Using Electroconvection Activated by Zwitterions

Jeong Won Ryu, Gyu Jin Choi, and Jin Seog Gwag (Yeungnam Univ., Korea)

Session Title:	29. Crystalline Semiconductor Devices II
Session Date:	August 21 (Thu.), 2025
Session Time:	11:00-12:20
Session Room:	Room E (311~312)
Session Chair(s):	Prof. Yasaku Magari (Hokkaido Univ., Japan) Dr. SungHaeng Cho (ETRI, Korea)

[E29-1] [Invited]

11:00-11:25

Solid-Phase Crystallization of Indium Oxide for High-Mobility TFTs

Mamoru Furuta, Mir Mutakabbir Alom, Xiaoqian Wang, and Yusaku Magari (Kochi Univ. of Tech., Japan)

[E29-2] [Invited]

11:25-11:50

Emerging Semiconductors Meet New Applications: Security and Neuromorphics

Hocheon Yoo (Hanyang Univ., Korea)

[E29-3]

11:50-12:05

Highly-Ordered Crystalline In-Ga-Oxide Grown by Seed Layer-Assisted PEALD for Enhanced Top-Gate FET Performance

Seon Woong Bang and Jae Kyeong Jeong (Hanyang Univ., Korea)

[E29-4]

12:05-12:20

Hexagonal Boron Nitride for Enhanced Crystallization and Interface Control of Tin Halide Perovskites

Taewan Roh, Youjin Reo, Seongmin Heo, Geonwoong Park, Wonryeol Yang, Beomjoo Ham, Jehyun An, Ju-Hyun Jung, Seung Hwa Baek, Rockhyun Baek, Cheol-Joo Kim, and Yong-Young Noh (POSTECH, Korea)

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	30. AI for Computational Design I
Session Date:	August 21 (Thu.), 2025
Session Time:	11:00-12:30
Session Room:	Room F (313)
Session Chair(s):	Dr. Sandra Jenatsch (Fluxim AG, Switzerland) Dr. Hyun Sung Park (Samsung Display Co., Ltd., Korea)

[F30-1] [Invited]	11:00-11:30
--------------------------	--------------------

Computational Design and Optimization of Subpixel Concepts for Innovative OLED Displays

Sandra Jenatsch, Balthasar Blülle, Adrian Langenbach (Fluxim AG, Switzerland), Peter Levermore (Excyton Limited, UK), and Beat Ruhstaller (Fluxim AG, Switzerland)

[F30-2]	11:30-11:45
----------------	--------------------

Optimal Heating Profile Design Using Deep Reinforcement Learning for 10th Generation OLED Manufacturing Applying Inductive Heating Technology

Doo Seok Lee (DGIST, Korea), Sihyun Lee, Heeyoon Lee (SVMTECH, Korea), Young Rock Kim, Tae-Su Park (Hankuk Univ. of Foreign Studies, Korea), Hanyong Lee (Kyonggi Univ., Korea), Wanho Lee, and Taeyoung Ha (Nat'l Inst. for Mathematical Sciences, Korea)

[F30-3]	11:45-12:00
----------------	--------------------

Scoreboard-Based Reinforcement Learning for Digital Logic Gate Synthesis

Hyeonseong Cho, Yeonhak Pyo, Tae Woong Lee (Kyung Hee Univ., Korea), Jiyoung Lee, Hyunyoung Choi, Hyung Uk Cho (Samsung Display Co., Ltd., Korea), and Hyoungsik Nam (Kyung Hee Univ., Korea)

[F30-4]	12:00-12:15
----------------	--------------------

Privileged Structure-Based Molecular Fingerprints for Organic Electronic Materials: Towards Intuitive Machine Learning Interpretation and Efficient Molecular Design

Tae Wook Yang, Seung Hyun Jo, and Min Chul Suh (Kyung Hee Univ., Korea)

[F30-5]	12:15-12:30
----------------	--------------------

A Novel Methodology for Evaluating Corrosion Failure Risk of OLED Panels

Hyun Sung Park, Sooyoung Park, Dongjin Seo, Hyeseok Na, Yujin Choi, Young-Gu Kang, Hyeondo Park, Wondo Kim, Minji Kim, Jangwoo Kim, and Seung-in Baek (Samsung Display Co., Ltd., Korea)

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	31. Metrology and Inspection
Session Date:	August 21 (Thu.), 2025
Session Time:	11:00-12:45
Session Room:	Room G (314~315)
Session Chair(s):	Dr. Yong Jun Park (Samsung Display Co., Ltd., Korea) Prof. Min Young Kim (Kyungpook Nat'l Univ., Korea)

[G31-1] [Invited]

11:00-11:25

Acousto-Optic Tunable Filter-Based Hyperspectral Imaging Method for Detecting Manufacturing Issues in Display Panel Production

Jonghee Yoon (Ajou Univ., Korea), Sanghoon Lee, and Taehoon Kim (Green Optics Co., Ltd., Korea)

[G31-2] [Invited]

11:25-11:50

Tantium MicroLED: Redefining Performance and Efficiency in Next-Generation Displays

Ying-Tsang Liu, Kuan-Yung Liao, Ching-Liang Lin, Sheng-Yuan Sun, and Yun-Li Li (PlayNitride Inc., Taiwan)

[G31-3] [Invited]

11:50-12:15

Recent AOI Techniques with Deep-Learning for Advanced Display Industries

Min Young Kim (Kyungpook Nat'l Univ., Korea)

[G31-4]

12:15-12:30

Layer-Resolved Measurement of Thickness and Refractive Index in a Triple-Layer Protective Film Using Spectral Interference Method

Jungjae Park, Jaeseok Bae, and Jonghan Jin (Meter-Lab. Inc., Korea)

[G31-5]

12:30-12:45

Precision Topography Metrology Using White Light Scanning Interferometry with Vibration Tolerance

Chan Young Park, Ohchul Shin, SungYup An, Hyobin Jeong, and Jonghoon Kim (HB Solution Co., Ltd., Korea)

Session Title:	32. Emerging Materials for Display
Session Date:	August 21 (Thu.), 2025
Session Time:	11:00-12:30
Session Room:	Room H (316~317)
Session Chair(s):	Prof. Hongseok Yun (Hanyang Univ., Korea) Prof. Sun-Je Kim (Soongsil Univ., Korea)

[H32-1] [Invited]

11:00-11:25

Cascaded Janus Meta-Optics for Generalized Bidirectional Asymmetry

Junseo Bang, Youngjin Kim, Taewon Choi, Changhyun Kim, Hyunwoo Son (Seoul Nat'l Univ., Korea), Sun-Je Kim (Soongsil Univ., Korea), Yoonchan Jeong, and Byoungcho Lee (Seoul Nat'l Univ., Korea)

[H32-2] [Invited]

11:25-11:50

From Chemistry to Optoelectronics: Exploring Advanced Liquid Crystal Materials

Hsiu-Hui Chen (Nat'l Taipei Univ. of Tech., Taiwan)

[H32-3] [Invited]

11:50-12:15

Tunable Self-Wrinkled Polymer Films for Anti-Glare LED Surfaces via Interfacial Fuming-Induced Instability

Yi-Chen Chen and Han-Yu Hsueh (Natl. Chung Hsing Univ., Taiwan)

[H32-4]

12:15-12:30

High Contrast Multicolor Display based on Electrochromic V_2O_5 Nanosheet

Jin Kim (Hanbat Nat'l Univ., Korea)

IMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	33. Perovskite Electroluminescent Devices
Session Date:	August 21 (Thu.), 2025
Session Time:	16:00-17:30
Session Room:	Room A (211~213)
Session Chair(s):	Prof. Hobeom Kim (GIST, Korea) Prof. Himchan Cho (KAIST, Korea)

[A33-1] [Invited]

16:00-16:25

Engineering Perovskite Nanocrystals for Next-Generation Display Technologies

Tae-Woo Lee (Seoul Nat'l Univ., Korea)

[A33-2] [Invited]

16:25-16:50

Bright and Stable Perovskite Light-Emitting Diodes

Dawei Di (Zhejiang Univ., China)

[A33-3] [Invited]

16:50-17:15

Inkjet-Printed Multilayer Hole Transport Layer and Perovskite Nanocrystals LEDs

Takayuki Chiba, Narazaki Kohei, and Takuya Akiyama (Yamagata Univ., Japan)

[A33-4]

17:15-17:30

High-Performance CsPbBr₃ Perovskite Quantum Dot Light-Emitting Diodes via Complementary Multi-Step Ligand Exchange with Short π -Conjugated and Lewis Base Ligands

Min-Gon Shin, Jung Tae Park , and Jae-Min Myoung (Yonsei Univ., Korea)

Session Title:	34. OLED Future Materials II
Session Date:	August 21 (Thu.), 2025
Session Time:	16:00–18:00
Session Room:	Room B (214~216)
Session Chair(s):	Prof. Hirohiko Fukagawa (Chiba Univ., Japan) Prof. Taekyung Kim (Kyung Hee Univ., Korea)

[B34-1] [Featured Invited]

16:00–16:30

Iridium(III) Carbene Complexes for Blue Organic Light Emitting Diodes

Yun Chi (City Univ. of Hong Kong, Hong Kong)

[B34-2] [Invited]

16:30–16:55

Design and Synthesis of Phosphorescent Platinum(II) and Gold(III) complexes and Their Application in Optoelectronics

Si-jie Li, Maggie Ng, Season Si Chen, and Man-Chung Tang (Tsinghua Univ., China)

[B34-3] [Invited]

16:55–17:20

Next Generation Green-Emission OLED Technology with pTSF Using Multiple-Resonance Materials

Xudong Cao, Kai Xu (Jiangsu Sunera Tech. Co., Ltd., China), Lian Duan (Tsinghua Univ., China), and Chong Li (Jiangsu Sunera Tech. Co., Ltd., China)

[B34-4]

17:20–17:35

Achieving a Rapid Reverse Intersystem Crossing Rate Exceeding 10^7 s⁻¹ by a High-Lying Triplet with Distinct Charge-Transfer Nature from Singlet

Hai Zhang, Dongdong Zhang, and Lian Duan (Tsinghua Univ., China)

[B34-5] [Invited]

17:35–18:00

Material Combination Matters: The Next Dimension of Enhancing OLED Performance

Christian Eickhoff, Martin Kraska, Natalie Tober, Jens Engelhart, Alexander Schubert, Falk May, Sebastian Stolz, Philipp Schütz (Merck Electronics KGaA, Germany), and Su-Hwan Na (Merck Performance Materials Ltd., Korea)

IMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	35. Light Weight Design and Wearability for AR/VR/MR
Session Date:	August 21 (Thu.), 2025
Session Time:	16:00-17:30
Session Room:	Room C (217)
Session Chair(s):	Prof. Wen-Kai Lin (Feng Chia Univ., Taiwan) Dr. Kihong Choi (ETRI, Korea)

[C35-1] [Invited]	16:00-16:25
--------------------------	--------------------

Lightweight Yet Expressive: Reconciling AR-HMD Design Constraints via Beaming Displays and Miniaturized Occlusion

Yuichi Hiroi (Metaverse Lab, Cluster Inc., Japan)

[C35-2] [Invited]	16:25-16:50
--------------------------	--------------------

Technological Development Trends of AR Glasses by Optic Structures

Jee Myung Kim and Jeong Hun Ha (LetinAR, Korea)

[C35-3] [Invited]	16:50-17:15
--------------------------	--------------------

Our Understanding of the Current XR Market from the Perspective of a Device Manufacturer and Suggestions to Display Manufacturers

Masayuki Kozuka (Panasonic System Networks R&D Lab. Co., Ltd., Japan) and Tomonari Oogami (Panasonic Corp., Japan)

[C35-4]	17:15-17:30
----------------	--------------------

Large-Scale Curved Waveguide Fourier Optics for Augmented Reality Near-Eye Display

Woorim Lee, Myeonggyu Choi, and Hwi kim (Korea Univ., Korea)

Session Title:	36. Novel Liquid Crystal Displays
Session Date:	August 21 (Thu.), 2025
Session Time:	16:00–17:30
Session Room:	Room D (218)
Session Chair(s):	Prof. Kristiaan Neyts (Hong Kong Univ. of Science and Tech., Hong Kong) Dr. Kyungmin Lee (Air Force Research Lab., USA)

[D36-1] [Invited]	16:00–16:25
--------------------------	--------------------

Development of New Ferroelectric Liquid Crystal with High Reliability for LCOS and SLM

Tomohiro Ando, Yuta Kanamori, Manabu Nakamura, Takuya Yanagisawa, and China Imanishi
(Citizen Finedevice Co., Ltd., Japan)

[D36-2] [Invited]	16:25–16:50
--------------------------	--------------------

Reflective Displays Enabled by Photo-Patterned Blue Phase Photonic Crystals

Quanming Chen and Dan Luo (Southern Univ. of Science and Tech., China)

[D36-3] [Invited]	16:50–17:15
--------------------------	--------------------

Fluid Relaxor Ferroelectrics based on Polar Nematic Liquid Crystals: Low-Voltage Electric-Field Switching with Ultra-High Dielectric Constant

Satoshi Aya, Xinxin Zhang, Yu Zou, and Mingjun Huang (South China Univ. of Tech., China)

[D36-4]	17:15–17:30
----------------	--------------------

A Simple Baseline for Enhancing Readability in Mini-LED Displays under Diverse Ambient Lighting Conditions

Junho Heo, Jongsang Yoo, Jaechan Cho, and Yoonjong Yoo (LX Semicon Co., Ltd., Korea)

Session Title:	37. Young Leaders Conference II
Session Date:	August 21 (Thu.), 2025
Session Time:	16:00-17:40
Session Room:	Room E (311~312)
Session Chair(s):	Prof. Jonghee Lee (Hanbat Nat'l Univ., Korea)

[E37-1]	16:00-16:20
----------------	--------------------

Advances in Smart Glass Technology: Innovations in Haze-Control and Thin Triple Smart Glazing Solutions

Jae-Won Huh, Haedong Park, Jin-Wook Song, and Hong Yoon (Corning Technology Center Korea, Korea)

[E37-2]	16:20-16:40
----------------	--------------------

Real-Time Radiation-Resistant Metal-Oxide Thin-Film Transistors

Dongil Ho (Kongju Nat'l Univ., Korea), Myung-Gil Kim (Sungkyunkwan Univ., Korea), and Choongik Kim (Sogang Univ., Korea)

[E37-3]	16:40-17:00
----------------	--------------------

Unlimited NIR Photoswitching of Nanocrystals for Sub-Å Accuracy Optical Imaging

Changhwan Lee (KAIST, Korea)

[E37-4]	17:00-17:20
----------------	--------------------

Micro-LED Pixel Circuits Employing Multi-Level Digital PWM

Hwarim Im (Konkuk Univ., Korea)

[E37-5]	17:20-17:40
----------------	--------------------

In-Depth Study on Novel Interconnects to Enable High Resolution Stretchable Display Applications

Ji Hun Choi, Chan Woo Park, Jiho Joo, Jong-Heon Yang, Jae-Eun Pi, and Chi-Sun Hwang (ETRI, Korea)

IMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	38. AI for Computational Design II
Session Date:	August 21 (Thu.), 2025
Session Time:	16:00-17:25
Session Room:	Room F (313)
Session Chair(s):	Prof. Seungryul Baek (UNIST, Korea) Dr. Zhihong Pan (Samsung Display Co., Ltd., America Lab, USA)

[F38-1] [Invited]	16:00-16:25
--------------------------	--------------------

Graph-Based Efficient 3D Hand Pose Estimation

Hor Siekny and Seungryul Baek (UNIST, Korea)

[F38-2] [Invited]	16:25-16:55
--------------------------	--------------------

Building Vision Foundations for Smarter Factories: Pretraining Strategies for Display Manufacturing AI

Zhihong Pan, Rahul Shenoy, Kaushik Balakrishnan (Samsung Display Co., Ltd., America Lab, USA), Hyemin Lee, Yongmoon Jeon, and Jaewon Kim (Samsung Display Co., Ltd., Korea)

[F38-3]	16:55-17:10
----------------	--------------------

Design of AMOLED Module Screen Color Unevenness Recognition Algorithm

Teng Jin, Hao Shen, Fengzhang Hu, and Ke Liu (Hefei Visionox Tech. Co., Ltd., China)

[F38-4]	17:10-17:25
----------------	--------------------

Strain Visualization of Stretchable Serpentine Interconnects using Digital Image Correlation

Hak Jun Yang, Sang Hyun Han, Jun Hyuk Shin, and Su Seok Choi (POSTECH, Korea)

IMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	39. Advanced Manufacturing II
Session Date:	August 21 (Thu.), 2025
Session Time:	16:00-17:45
Session Room:	Room G (314~315)
Session Chair(s):	Prof. Andrews Joseph (Univ. of Wisconsin-Medison, USA) Dr. Seung-Ho Choi (ULVAC, Korea)

[G39-1] [Invited]	16:00-16:25
--------------------------	--------------------

Perovskite Quantum Dots Photoresist for Direct Photolithography

Gaoling Yang (Beijing Inst. of Tech., China)

[G39-2] [Invited]	16:25-16:50
--------------------------	--------------------

High-Resolution Reverse-Offset Printing-Based Patterning of Thin Films for Metal Oxide TFTs

Asko Sneek, Fei Liu, Patrik Eskelinen, Kim Eiroma, Olli Halonen, Liam Gillan, and Jaakko Leppäniemi (VTT Technical Research Centre of Finland Ltd., Finland)

[G39-3] [Invited]	16:50-17:15
--------------------------	--------------------

Development of Display Measurement Technologies for Wide Dynamic Range and VRR Flicker

Kazuyoshi Omata, Katsutoshi Tsurutani, Satoshi Masuda, Mikio Uematsu, Yuzuru Yamamoto, and Yosuke Takebe (Konica Minolta Inc., Japan)

[G39-4]	17:15-17:30
----------------	--------------------

Sonochemical Treatment of Light Emitting Polymer to Control Viscoelasticity for Inkjet-Printed OLEDs

Dongryul Lee, Seongju Kim, and Sungjune Jung (POSTECH, Korea)

[G39-5]	17:30-17:45
----------------	--------------------

Film for OLED Displays and Novel Method for Fast Evaluation of Surface Energy on Window Cover Substrate

Do-Young Jeong and Kwan-Young Han (Dankook Univ., Korea)

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:

40. Merck Science Connect

“Advancing the Future of Visual Technology – Display evolves into Optronics”

Session Date:

August 21 (Thu.), 2025

Session Time:

14:00–17:05

Session Room:

Room H (316~317)

Session Chair(s):

Hyunkoo Lee, Ph.D. (Assistant Professor, Department of Electrical Engineering Sookmyung Women's University)

Hye-Jung Im (Head of Global Marketing Communications, Optronics, Merck)

Overarching

[H40-1]

14:00–14:20

Mastering Light for Tomorrow

Johannes Canisius (General Manager OLED, Senior Vice President of Optronics Business Unit, Merck Electronics KGaA)

[H40-2]

14:20–14:40

Display Industry Megatrends and Technical Implications

Jerry Kang (Practice Leader, Omdia)

Focused Track 1 – Shape the Future of Display

[H40-3]

14:40–14:55

Liquid Crystal Innovations for Energy-Efficient Displays in the Intelligent Era

Achim Goetz (Director of Technical Marketing LC, Merck Electronics KGaA)

[H40-4]

14:55–15:15

Unlocking Premium Picture quality: The Next Dimension of OLED Performance

Christian Eickhoff | Senior Scientist–OLED Material Innovation, Merck Electronics KGaA

[H40-5]

15:15–15:30

Microscopic Insights, Macroscopic Impact: Device Simulations in OLED R&D

Alexander Schubert (Senior Expert Computational Modeling, Novel Tools, Merck Electronics KGaA)

Break Time

15:30–16:00

Focused Track 2 – Optics, as a Core of Innovation

[H40-6]

16:00–16:20

Exploring Polymerizable Mesogenic Materials: Innovations in Advanced Optical Technologies

Hyun-Jin Yoon (Senior Business Development Manager, Future Optical Technologies, Merck)

[H40-7] Special Session with a 2025 Merck Awardee

16:20–16:40

[H40-8]

16:40–17:05

Photonics for AI – From Interconnects to Processors

Sangyoon Han (Associate Professor, DGIST)

imiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	41. Applications of QD Optoelectronics
Session Date:	August 22 (Fri.), 2025
Session Time:	09:00–10:30
Session Room:	Room A (211~213)
Session Chair(s):	Prof. Hyunho Lee (Kwangwoon Univ., Korea) Prof. Byeong Guk Jeong (Pusan Nat'l Univ., Korea)

[A41-1] [Invited]

09:00–09:25

Interface Engineering of Colloidal PbS Quantum-Dots Optoelectronic Devices

Chanwoo Lim, Najeong Kim, Yewon Hwang (KIST, Korea), Minjae Ko (Hanyang Univ., Korea),
and Hyeonggeun Yu (KIST & Univ. of Science and Tech. & Sunkyunkwan Univ., Korea)

[A41-2] [Invited]

09:25–09:50

**Unraveling the Electro-Kinetically Pumped Avalanche Multiplication for Ultrahigh-Gain
Colloidal Quantum Dot Infrared Photodetector**

Byeongsu Kim (Univ. of Ulsan, Korea)

[A41-3] [Invited]

09:50–10:15

Mass Production of Quantum Dots

Hunter McDaniel (UbiQD, Inc., USA)

[A41-4]

10:15–10:30

0D, 1D and 2D Quantum Dots– How Does the Dimensionality Influence Their Properties

Jan S. Niehaus, Sören Becker, and T. Jochum (Fraunhofer IAP-CAN, Germany)

IMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	42. OLED Blue Materials II
Session Date:	August 22 (Fri.), 2025
Session Time:	09:00-10:30
Session Room:	Room B (214~216)
Session Chair(s):	Prof. Jeong-Hwan Lee (Inha Univ., Korea) Dr. Sang Ho Jeon (Samsung Display Co. Ltd., Korea)

[B42-1] [Invited]

09:00-09:25

Development of Blue Emitting Materials for PSF and HF

Yun-Hi Kim (Gyeongsang Nat'l Univ., Korea)

[B42-2] [Invited]

09:25-09:50

Highly Efficient and Stable Blue Fluorescent OLED Using Dual EML System

Satomi Tasaki, Masato Nakamura, Yu Kudo, Keitaro Yamada, Kazuki Terada (Idemitsu Kosan Co., Ltd., Japan), Tsukasa Sawato (Idemitsu Advanced Materials Korea Co., Ltd., Korea), Tomonori Nakamura, Kazuki Nishimura, and Emiko Kambe (Idemitsu Kosan Co., Ltd., Japan)

[B42-3] [Invited]

09:50-10:15

The Origin of the Inverted Singlet and Triplet Excited States of Azaphenylene Molecules

Yong-Jin Pu (RIKEN CEMS, Japan)

[B42-4]

10:15-10:30

Capacitance Properties of Phosphor Sensitized Deep Blue OLEDs

Hyosup Shin (Samsung Display Co., Ltd., Korea), Makoto Yamamoto (Samsung Electronics Co., Ltd., Japan), Seokgyu Yoon, and Keunchan Oh (Samsung Display Co., Ltd., Korea)

IMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	43. Perceptual Quality and Computational Issues in AR/VR/MR
Session Date:	August 22 (Fri.), 2025
Session Time:	09:00-10:20
Session Room:	Room C (217)
Session Chair(s):	Dr. Jee Myung Kim (LetinAR, Korea) Prof. Zong Qin (Sun Yat-Sen Univ., China)

[C43-1] [Invited]	09:00-09:25
--------------------------	--------------------

Towards Building Perceptual Metrics for Next-Generation Displays

Dongyeon Kim (Univ.of Cambridge, UK)

[C43-2] [Invited]	09:25-09:50
--------------------------	--------------------

Wave-Optic Design Algorithms for Diffractive Waveguide Augmented Reality Displays

Hwi Kim (Korea Univ., Korea)

[C43-3]	09:50-10:05
----------------	--------------------

Hologram Data Calculation based on Conventional Computer-Graphics Rendering

Yota Iseki (Tokushima Univ., Japan), Munekazu Date (Tokushima Bunri Univ., Japan), Haruki Mizushima (Tokushima Univ. & Shinshu Univ., Japan), and Kenji Yamamoto (Tokushima Univ., Japan)

[C43-4]	10:05-10:20
----------------	--------------------

Experimental Verification of Moiré Reduction of Near Virtual-Image Mode Light Field Display Using Zigzag-Shaped Apertures

Koichiro Fukano (Tokyo Univ. of Agriculture and Tech., Japan), Toshiki Yura (IMAGICA GROUP Inc., Japan), and Yasuhiro Takaki (Tokyo Univ. of Agriculture and Tech., Japan)

IMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	44. Liquid Crystalline Microstructures
Session Date:	August 22 (Fri.), 2025
Session Time:	09:00-10:30
Session Room:	Room D (218)
Session Chair(s):	Prof. Ling-Ling Ma (Nanjing Univ., China) Prof. Yoonseuk Choi (Hanbat Nat'l Univ., Korea)

[D44-1] [Invited]

09:00-09:25

Hierarchical Liquid Crystal Microstructures for Multi-Degree Optical Field Manipulation

Wei Hu (Nanjing Univ., China)

[D44-2] [Invited]

09:25-09:50

Programmable Patterning of Liquid Crystal Microdroplets at Surfaces

Daeseop Choi, Jun-Hyung Im, Eunsu Cho, Jangmin Kim, Jihye Back (POSTECH, Korea), Seung Woo Lee (Yeungnam Univ., Korea), Jin Seog Gwag (Yeungnam Univ., Korea), and Corresponding Author (POSTECH, Korea)

[D44-3] [Invited]

09:50-10:15

Liquid Crystalline Optical Ordered Structures: Construction and Manipulation

Conglong Yuan, Honglong Hu, Xuan Liu, and Zhi-Gang Zheng (East China Univ. of Science and Tech., China)

[D44-4]

10:15-10:30

Frequency-Induced Nanosheet Reorientation of Graphene Oxide Liquid Crystal

Yu-Yang Su, Zhao-Qing Wang, Qiong-Hua Wang, and Tian-Zi Shen (Beihang Univ., China)

IMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	45. Emerging Semiconductor Devices
Session Date:	August 22 (Fri.), 2025
Session Time:	09:00–10:30
Session Room:	Room E (311~312)
Session Chair(s):	Prof. Mengwei Si (Shanghai Jiao Tong Univ., China) Dr. Seungjae Moon (UNIST, Korea)

[E45-1] [Invited]	09:00–09:25
--------------------------	--------------------

Challenges in Oxide TFTs: Stability, S-Value, Hydrogen, Crystalline or Amorphous, Etc.

Minju Song, Minseok Kyung, Hyoseob Shin, Jiho Yeom, Soohyun Kim, Hyunsoo Kim, Kihoon Lee, Juyeon Chae, Jinho Yun, and Junghwan Kim (UNIST, Korea)

[E45-2] [Invited]	09:25–09:50
--------------------------	--------------------

Exploring 2D-Material Electronics: Advanced Computational Techniques from Material Modeling to Device Simulation

Michael Spinazze, Mayuri Sritharan, and Youngki Yoon (Univ. of Waterloo, Canada)

[E45-3] [Invited]	09:50–10:15
--------------------------	--------------------

Environment-Aware In-Sensor Reservoir Computing Using WS_2 Memtransistors

Maksim Andreev and Kah-Wee Ang (Nat'l Univ. of Singapore, Singapore)

[E45-4]	10:15–10:30
----------------	--------------------

Investigation of Carrier Transport Mechanism of Rare Metal-Free Oxide Thin Film Transistors by Thermopower Modulation Analysis

Keizo Kashiba, Juan Paolo S. Bermundo (NAIST, Japan), Yusaku Magari (Hokkaido Univ., Japan), Candell Grace P. Quino (NAIST, Japan), Hiromichi Ohta (Hokkaido Univ., Japan), and Yukiharu Uraoka (NAIST, Japan)

IMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	46. Outstanding Students Conference
Session Date:	August 22 (Fri.), 2025
Session Time:	09:00-10:30
Session Room:	Room F (313)
Session Chair(s):	Prof. Jonghee Lee (Hanbat Nat'l Univ., Korea)

[F46-1]	09:00-09:15
----------------	--------------------

All-Soft Optoelectronic Synaptic Devices for Advanced Neuromorphic Systems

Myeonghyeon Na and Kyoseung Sim (UNIST, Korea)

[F46-2]	09:15-09:30
----------------	--------------------

Advancing Hair Loss Therapy with Wearable Textile NIR OLEDs: Toward Personalized Phototherapy

Eun Hae Cho (KAIST, Korea), Yun Chi (City Univ. of Hong Kong, Hong Kong), and Kyung Cheol Choi (KAIST, Korea)

[F46-3]	09:30-09:45
----------------	--------------------

Blue Phosphorescent Organic Light-Emitting Diodes with Over 500 h Device Lifetime up to 95% of Initial Luminance at 1,000 cd/m²

Hyunjung Lee, Kiun Cheong, Jangho Moon (Sungkyunkwan Univ., Korea), Chan Hee Ryu (Kangwon Nat'l Univ., Korea), Gyeong Woo Kim, Jun Yun Kim (LG Display Co., Ltd., Korea), In-Ho Lee (P&H Tech Co., Ltd., Korea), Yong-Woo Kim, Young Woong Lee, Seokhyeon Yu (LT Materials Co., LTD., Korea), Kang Mun Lee (Kangwon Nat'l Univ., Korea), Sunwoo Kang (Dankook Univ., Korea), and Jun Yeob Lee (Sungkyunkwan Univ., Korea)

Outstanding Students Conference Awards Ceremony	09:45-10:30
--	--------------------

IMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	47. Advanced Technologies for Bio-Integrated System
Session Date:	August 22 (Fri.), 2025
Session Time:	09:00-10:35
Session Room:	Room G (314~315)
Session Chair(s):	Prof. Wei Huang (Univ. of Electronic Science and Tech. of China, China) Prof. Kyoseung Sim (UNIST, Korea)

[G47-1] [Invited]	09:00-09:25
--------------------------	--------------------

Photocrosslinkers for Direct Lithography of Organic Semiconductors

Liang-Wen Feng (Sichuan Univ., China)

[G47-2] [Invited]	09:25-09:50
--------------------------	--------------------

Surface Modification of Organic Electrochemical Transistors

Shunsuke Yamamoto (Kyoto Univ., Japan)

[G47-3]	09:50-10:05
----------------	--------------------

Vertically Parallel Stacking of Textile-Based Organic Light Emitting Diodes and Organic Photo Diodes with Quantum Dots for Simultaneous Applications in Display and Photodiagnostics

Youjin Cho, Sang Jik Kwon, Eou-Sik Cho (Gachon Univ., Korea), and Yongmin Jeon (Kyung Hee Univ., Korea)

[G47-4]	10:05-10:20
----------------	--------------------

Flexible Visible-to-Near-Infrared Photodetector Fabricated by Embedded Integration of Sb₂Se₃ Film with Polycrystalline Si Transistor for Bio-Signal Detection Applications

Chang-Hong Shen (Nat'l Tsing Hua Univ., Taiwan), Wen-Hsien Huang (Taiwan Semiconductor Research Inst., Taiwan), and Yu-Lun Chueh (Nat'l Tsing Hua Univ., Taiwan)

[G47-5]	10:20-10:35
----------------	--------------------

Transparent Tandem White OLED for User-Friendly Visual Stimulation in Wearable Biomedical Devices

Minwoo Park, Young Hun Jung, Byeong Ju Noh, and Kyung Cheol Choi (KAIST, Korea)

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	48. Emerging Materials and Processing for Display
Session Date:	August 22 (Fri.), 2025
Session Time:	09:00-10:30
Session Room:	Room H (316~317)
Session Chair(s):	Prof. Hyeon-Ho Jeong (GIST, Korea) Prof. Young Min Song (GIST, Korea)

[H48-1] [Invited]	09:00-09:25
--------------------------	--------------------

Full-Color, Energy-Efficient Monopixel Displays Enabled by Electrically Tunable Gires-Tournois Resonators

Young Min Song (GIST & KAIST, Korea)

[H48-2] [Invited]	09:25-09:50
--------------------------	--------------------

Aluminum-Based 3D Lithography: From Multiscale Manufacturing to Advanced Sensing

Liaoyong Wen (Westlake Univ., China)

[H48-3] [Invited]	09:50-10:15
--------------------------	--------------------

Electrohydrodynamic (EHD)-Jet Printing for High-Resolution Displays: Innovations in Materials and Process Upscaling

Manuel Gensler, Yohan Kim, Jiyong Kim, Christine Boeffel, and Armin Wedel (Fraunhofer IAP, Germany)

[H48-4]	10:15-10:30
----------------	--------------------

Direct-Photopatternable, Resilient Perovskite Nanocomposite for Leakage-Suppressed Color-Conversion Displays

Eojin Yoon, Qingsen Zeng (Seoul Nat'l Univ., Korea), Minjung Hwang (Korea Univ., Korea), and Tae-Woo Lee (Seoul Nat'l Univ., Korea)

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	49. Fabrication Technologies of QDs
Session Date:	August 22 (Fri.), 2025
Session Time:	11:00-12:10
Session Room:	Room A (211~213)
Session Chair(s):	Prof. Jeongkyun Roh (Pusan Nat'l Univ., Korea) Prof. Taesoo Lee (Inha Univ., Korea)

[A49-1] [Featured Invited]

11:00-11:30

Towards Colloidal Quantum Dot Infrared Technologies: III-V QD Synthesis and Nano-Printing Assembly

Tianshuo Zhao (The Univ. of Hong Kong, Hong Kong)

[A49-2] [Invited]

11:30-11:55

Surface and Interface Engineering of Quantum Dots via ALD: Enabling Next Generation Optoelectronic Devices

Rong Chen (Huazhong Univ. of Science and Tech., China)

[A49-3]

11:55-12:10

Electrohydrodynamic Patterning Process Utilizing the Electrophoresis of Electroluminescent QD Particles

Jin Woo Jung (Samsung Electronics Co., Ltd., Korea), Hyejin Song, Yong Hyun Jo, Moon Sung Kang (Sogang Univ., Korea), and Keon Kuk (Samsung Electronics Co., Ltd., Korea)

IMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	50. OLED Future Materials III
Session Date:	August 22 (Fri.), 2025
Session Time:	11:00-12:40
Session Room:	Room B (214~216)
Session Chair(s):	Dr. Yong-Jin Pu (RIKEN, Japan) Dr. Kwan-soo Kim (LG Display Co., Ltd., Korea)

[B50-1] [Invited]

11:00-11:25

Recent Advances Towards Next-Generation OLEDs

Hwan-Hee Cho (Yonsei Univ., Korea)

[B50-2] [Invited]

11:25-11:50

Work Function Tuning of Electrodes from 2.1 to 5.8 eV via Aluminum-Assisted Charge Transfer

Kazuho Tatsuki, Miyu Moriyama (Chiba Univ., Japan), Takeshi Okada, Nobumichi Arai (Tosoh Corp., Japan), Hisao Ishii, and Hirohiko Fukagawa (Chiba Univ., Japan)

[B50-3] [Invited]

11:50-12:15

Next-Generation p-Dopants for OLED Displays

Julia Stolz, Dinara Samigullina, Steffen Woltering, Jörn Vahland, Léonard Y. M. Eymann, Till Vogel, Marcus Papmeyer, and Sascha Dorok (CREDOXYS GmbH, Germany)

[B50-4] [Invited]

12:15-12:40

Recent Progress in P-Dopants with Ultra-Low Conductivity

Huiqing Pang, Xiaoyong Zhang, Zhihao Cui, Jiaqi Wang, Menglan Xie, Jing Wang, Renjie Zheng, Xingxing Chai, Ray Kwong, and Sean Xia (Beijing Summer Sprout Tech. Co., Ltd., China)

Session Title:	51. Recent Developments in Digital Holography
Session Date:	August 22 (Fri.), 2025
Session Time:	11:00-12:20
Session Room:	Room C (217)
Session Chair(s):	Dr. Chulwoo Oh (Meta, USA) Dr. Keehoon Hong (ETRI, Korea)

[C51-1] [Invited]

11:00-11:25

Real-World Captured Hologram Video Processing Toward High Resolution Holographic Display

Kihong Choi, Daeyoul Park, and Keehoon Hong (ETRI, Korea)

[C51-2] [Invited]

11:25-11:50

Application of Volume Holographic Optical Elements in Exit Pupil Expander

Wen-Kai Lin (Feng Chia Univ., Taiwan), Yuan-Yan Liang (Nat'l Yang Ming Chiao Tung Univ., Taiwan), Wei-Chia Su (Nat'l Changhua Univ. of Education, Taiwan), Shiu-an-Huei Lin (Nat'l Yang Ming Chiao Tung Univ., Taiwan), Yeh-Wei Yu, and Ching-Cherng Sun (Nat'l Central Univ., Taiwan)

[C51-3]

11:50-12:05

Optimization of Computer-Generated Hologram in Large-Scale Waveguide

Sewoon Kim (Korea Univ., Korea), Joonghee Kim (Sogang Univ., Korea), and Hwi kim (Korea Univ., Korea)

[C51-4]

12:05-12:20

High-Performance Out-of-Core Numerical Diffraction for Terabyte-Scale Computer-Generated Holography

Jaehong Lee and Duxu Kim (Korea Univ. of Tech. and Education, Korea)

Session Title:	52. Metasurfaces & LC Photonics
Session Date:	August 22 (Fri.), 2025
Session Time:	11:00-12:20
Session Room:	Room D (218)
Session Chair(s):	Prof. Wei Hu (Nanjing Univ., China) Prof. Jun-Hee Na (Chungnam Nat'l Univ., Korea)

[D52-1] [Invited]	11:00-11:25
--------------------------	--------------------

Photopatterned Liquid Crystal Superstructures for Soft-Matter Photonics

Ling-Ling Ma, Jin-Tao Pan, Ze-Yu Wang, Li Guo, and Yan-Qing Lu (Nanjing Univ., China)

[D52-2] [Invited]	11:25-11:50
--------------------------	--------------------

Electrically Tunable Polarization Rotation in Ultrathin Twisted-Nematic Liquid Crystals Photonics

Pravinraj Selvaraj, Yi-Xuan Liu, Chi-Tang Huang, Chun-Ting Wu, Shao-Hao Liao, Cheng-Kai Liu, and Ko Ting Cheng (Nat'l Central Univ., Taiwan)

[D52-3]	11:50-12:05
----------------	--------------------

Transmissive Near-Infrared Tunable Metasurface based on Liquid Crystals

Jiayi Wang, Ziwei Zhou, and Jun Xia (Southeast Univ., China)

[D52-4]	12:05-12:20
----------------	--------------------

Geometric Phase Wavefronts Replication via Polarized Self-Interference Utilizing Quarter Waveplate Pattern Mask

Min-Seok Kim, Jin-Hyeok Seo, Young-Min Cho, Hyeon-Su Jeong, Jae-Won Lee, Hafiz Saad Khaliq, and Hak-Rin Kim (Kyungpook Nat'l Univ., Korea)

IMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	53. Oxide TFTs I
Session Date:	August 22 (Fri.), 2025
Session Time:	11:00-12:30
Session Room:	Room E (311~312)
Session Chair(s):	Prof. Youngki Yoon (Univ. of Waterloo, Canada) Prof. Jung-Hwan Kim (UNIST, Korea)

[E53-1] [Invited]	11:00-11:25
--------------------------	--------------------

The Impact of Defects on the Stability of Oxide Semiconductor Devices

Mengwei Si (Shanghai Jiao Tong Univ., China)

[E53-2] [Invited]	11:25-11:50
--------------------------	--------------------

The Reliability, Mobility, and 3D Integration of BEOL IGZO Transistors

Tang Baoshan, Sonu Hooda, and Aaron Voon-Yew Thean (Nat'l Univ. of Singapore, Singapore)

[E53-3] [Invited]	11:50-12:15
--------------------------	--------------------

Asymmetric Double-Gate (ADG) Oxide TFTs for Display and Sensor

Yuhan Zhang, Tengyan Huang, Huan Yang, Congwei Liao, and Shengdong Zhang (Peking Univ., China)

[E53-4]	12:15-12:30
----------------	--------------------

On Enhancing the Thermal Stability of a Metal-Oxide Thin-Film Transistor

Wei Jiang, Qiuxiao Feng (HKUST, China), and Man Wong (The Hong Kong Univ. of Science and Tech. & The Hong Kong Univ. of Science and Tech. Shenzhen Inst., China)

IMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	54. Applied Vision/Human Factors I
Session Date:	August 22 (Fri.), 2025
Session Time:	11:00-12:30
Session Room:	Room F (313)
Session Chair(s):	Dr. Don Gyou Lee (Meta, Korea) Mr. Dale Stoltzka (Samsung Display Co., Ltd., America Lab, USA)

[F54-1] [Invited]	11:00-11:25
--------------------------	--------------------

Measurements of Dynamic Modulation Transfer Function of Displays

Kenichiro Masaoka (NHK Science and Tech. Research Lab. & NHK Foundation, Japan), and
Johan Bergquist (Consultant, Japan)

[F54-2] [Invited]	11:25-11:50
--------------------------	--------------------

Comparison of Recent Flicker Metrics in Variable Refresh Rate Displays

Frank Seto, Dale Stoltzka (Samsung Display Co., Ltd., America Lab, USA), Hyosun Kim,
Dongyeol Yeom, and Yongwoo Yi (Samsung Display Co., Ltd., Korea)

[F54-3] [Invited]	11:50-12:15
--------------------------	--------------------

Measurement of Display Spatial Luminance Reproduction Accuracy

Robert Wanat (LG Electronics Inc., USA)

[F54-4]	12:15-12:30
----------------	--------------------

Fast and Precise Colorimetric Measurements of Diffractive Structures in Display Reflection Using Imaging Color Measurement Devices

Alexander Voelz (TechnoTeam Bildverarbeitung GmbH, Germany), Shin Myung Choi (IS-Soft Co., Ltd., Korea), Ingo Rotscholl, and Udo Krüger (TechnoTeam Bildverarbeitung GmbH, Germany)

Session Title:	55. Advanced Sensing Platform
Session Date:	August 22 (Fri.), 2025
Session Time:	11:00-12:30
Session Room:	Room G (314~315)
Session Chair(s):	Prof. Hae-Jin Kim (Yonsei Univ., Korea) Prof. Kyoseung Sim (UNIST, Korea)

[G55-1] [Invited]

11:00-11:25

Rational Molecular Engineering Towards Efficient and Ultra-Stable Self-Powered Perovskite Photodetectors and Their Application in Intelligent Wearable Electronics

Chih-Yu Chang (Nat'l Taiwan Univ. of Science and Tech., Taiwan)

[G55-2] [Invited]

11:25-11:50

Bioprinted Optoelectronic Tissues for Wireless Modulation of Cardiac Activity

Faheem Ershad (Univ. of Houston & Univ. of Illinois Urbana-Champaign, USA), Zhoulyu Rao (Univ. of Illinois Urbana-Champaign, USA), Sushila Maharjan, Yu Shrike Zhang (Harvard Med. Sch., USA), and Cunjiang Yu (Univ. of Illinois Urbana-Champaign, USA)

[G55-3] [Invited]

11:50-12:15

Electrocorticography Microdisplay for High Precision Intraoperative Brain Mapping

Youngbin Tchoe (UNIST, Korea & Univ. of California San Diego, USA), Tianhai Wu, Hoi Sang U, David M. Roth, Dongwoo Kim, Jihwan Lee (Univ. of California San Diego, USA), Daniel R. Cleary (Univ. of California San Diego & Oregon Health & Science Univ., USA), Patricia Pizarro (Univ. of California San Diego, USA), Karen J. Tonsfeldt (Univ. of California San Diego & Oregon Health & Science Univ., USA), Keundong Lee, Po Chun Chen, Andrew M. Bourhis, Ian Galton (Univ. of California San Diego, USA), Brian Coughlin (Massachusetts General Hospital, USA), Jimmy C. Yang (Massachusetts General Hospital & The Ohio State Univ., USA), Angelique C. Paulk (Massachusetts General Hospital, USA), Eric Halgren (Univ. of California San Diego, USA), Sydney S. Cash (Massachusetts General Hospital, USA), and Shadi A. Dayeh (Univ. of California San Diego, USA)

[G55-4]

12:15-12:30

Durable and Stretchable Skin-Like Strain sensor with UV Protection and Antibacterial Functionality

Baeksang Sung (Hanbat Nat'l Univ., Korea), Anky Fitrian Wibowo (Pukyong Nat'l Univ., Korea), Sora Han, Eun-Jeong Jang, Jae-Hyun Lee (Hanbat Nat'l Univ., Korea), Yong Hyun Kim (Pukyong Nat'l Univ., Korea), and Jonghee Lee (Hanbat Nat'l Univ., Korea)

Session Title:	56. Emerging Devices for Display
Session Date:	August 22 (Fri.), 2025
Session Time:	11:00-12:50
Session Room:	Room H (316~317)
Session Chair(s):	Dr. SooJi Nam (ETRI, Korea) Prof. Soong Ju Oh (Korea Univ., Korea)

[H56-1] [Invited]	11:00-11:25
--------------------------	--------------------

Nanocrystal and Quantum Dot Based Electronic, Optoelectronic Devices and Sensors
Soong Ju Oh (Korea Univ., Korea)

[H56-2] [Invited]	11:25-11:50
--------------------------	--------------------

Quantum Dots for Colour Conversion on μ LEDs – Particle Systems, Stability and other Tasks
Jan S. Niehaus, Sören Becker (Center for Applied Nanotechnology GmbH, Germany), and
Armin Wedel (Fraunhofer IAP, Germany)

[H56-3]	11:50-12:05
----------------	--------------------

Interfacial Defect Effect Between Chalcogenide Ovonic Threshold Switch and Metal Electrodes
MiRiNae Lee (ETRI & Univ. of Science and Tech., Korea), Junghoon Han (ETRI & Korea Univ., Korea), ChaHwan Yang (ETRI & Univ. of Science and Tech., Korea), Kyunghee Choi (ETRI, Korea), and Sooji Nam (ETRI & Univ. of Science and Tech., Korea)

[H56-4]	12:05-12:20
----------------	--------------------

IGZO-Based Optoelectronic Dual-Mode Devices with Reduction-Engineered Blue TiO_2 Absorption Layer
Su Min Park, Kunho Moon, Kyu Min Kim, Dong Keun Lee, and Hyun Jae Kim (Yonsei Univ., Korea)

[H56-5]	12:20-12:35
----------------	--------------------

Engineering P-Type Contacts in 2D WSe_2 Transistors via Selenium Interlayers: Leveraging Fermi-Level Pinning for Enhanced Performance
Soonhyo Kim, Taoyu Zou, Seongmin Heo, Mingyu Kim, and Yong-Young Noh (POSTECH, Korea)

[H56-6]	12:35-12:50
----------------	--------------------

Strain-Engineered Highly Flexible Dual-Gate MoS_2 Thin-Film Transistor with Graphene Electrodes
Mingu Kang, Jeoungmin Ji, Seohak Park, Su-Bon Kim, Inseong Lee, Hyeongjin Lim, and Seunghyup Yoo, and Sung-Yool Choi (KAIST, Korea)

IMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	57. QLED Devices
Session Date:	August 22 (Fri.), 2025
Session Time:	15:50-16:55
Session Room:	Room A (211~213)
Session Chair(s):	Prof. Byeong Guk Jeong (Pusan Nat'l Univ., Korea) Prof. Jeongkyun Roh (Pusan Nat'l Univ., Korea)

[A57-1] [Invited]	15:50-16:15
-------------------	-------------

Stable and Tunable Liquid Lasers Using Colloidal Quantum Dots

Kaifeng Wu (Dalian Inst. of Chemical Physics, China)

[A57-2] [Invited]	16:15-16:40
-------------------	-------------

Operational Degradation Mechanisms in Quantum Dot Light-Emitting Diodes

Hyunho Lee (Kwangwoon Univ., Korea)

[A57-3]	16:40-16:55
---------	-------------

ZnSe-Based Quantum Dots for Efficient Blue LEDs

Chenhui Wang and Haizheng Zhong (Beijing Inst. of Tech., China)

imiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	58. OLED Physics
Session Date:	August 22 (Fri.), 2025
Session Time:	15:50-16:55
Session Room:	Room B (214~216)
Session Chair(s):	Prof. Hwan-Hee Cho (Yonsei Univ., Korea) Prof. Jonghee Lee (Hanbat Nat'l Univ., Korea)

[B58-1] [Invited]

15:50-16:15

Transient Electroluminescent Behaviors in Blue-Emitting PSF-OLEDs

Jeong-Hwan Lee (Inha Univ., Korea)

[B58-2] [Invited]

16:15-16:40

Application of Multiscale Simulation and AI in OLED Device Development

Sang Ho Jeon, Jisong Chae, Minsoo Kim, Sunmi Choi, Hocheol Song, Il Joon Kang, Junghoon Kim, and Byunghoon Chun (Samsung Display Co., Ltd., Korea)

[B58-3]

16:40-16:55

Research on the Failure Mechanism of SCF Colloids based on OLED

Kang Li, Huinan Shi, Liang Gao, Zhi Zhang, Changman Kim, Haijun Qiu, Xin Li, Yongqiang Du, Yang Yang, Xuan Zhang, Feifan Li, Hao Zhang, and Qing Gong (Chengdu BOE Optoelectronics Group Co., Ltd., China)

IMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	59. Recent Developments in AR/VR/MR
Session Date:	August 22 (Fri.), 2025
Session Time:	15:50-17:25
Session Room:	Room C (217)
Session Chair(s):	Dr. Soongi Park (Samsung Display Co., Ltd., Korea) Dr. Jisoo Hong (KETI, Korea)

[C59-1] [Invited]	15:50-16:15
--------------------------	--------------------

Alvarez Lenses for Wavefront Control in Near-Eye and Vehicle XR Displays

Zong Qin, Yi Liu, Qimeng Wang, and Bo-Ru Yang (Sun Yat-Sen Univ., China)

[C59-2] [Invited]	16:15-16:40
--------------------------	--------------------

Exploration of Pupil Steering for Light-Efficient AR Displays

Seungjae Lee, Seung-Woo Nam, Kevin Rio, Renate Landig, Lu Lu, Hannah Noble, and Andrew Ouderkirk (Meta Reality Labs, USA)

[C59-3]	16:40-16:55
----------------	--------------------

Wave Optics-Based Design and Analysis of a Large-Scale Waveguide System for Holographic Head-Up Displays

Sehyeon Jeong, Jeonggyu Lee, and Hwi Kim (Korea Univ., Korea)

[C59-4]	16:55-17:10
----------------	--------------------

Design of a Full-Color Augmented Reality Near-Eye Display Using a Metalens and a Holographic Image Combiner

Do Hyeon Kim, Sehoon Kim, and Sun-Je Kim (Soongsil Univ., Korea)

[C59-5]	17:10-17:25
----------------	--------------------

Waveguide-Type Retinal Projection Display with Bidirectional Eyebow Expansion

Yujing Fu, Lijun Jiang, Jiafu Lin, Yuang Chen, and Huan Deng (Sichuan Univ., China)

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	60. Liquid Crystal Elastomers
Session Date:	August 22 (Fri.), 2025
Session Time:	15:50-16:55
Session Room:	Room D (218)
Session Chair(s):	Prof. Young-ki Kim (POSTECH, Korea) Prof. Yoonseuk Choi (Hanbat Nat'l Univ., Korea)

[D60-1] [Invited]

15:50-16:15

Advanced Optical and Photoresponsive Physical Unclonable Functions for Scalable and Secure Authentication

K. Kim and Jun-Hee Na (Chungnam Nat'l Univ., Korea)

[D60-2] [Invited]

16:15-16:40

Azobenzene-Functionalized Semicrystalline Liquid Crystal Elastomer Springs for Underwater Soft Robotic Actuators

Hyun Kim (KRICT, Korea)

[D60-3]

16:40-16:55

Reconfigurable Multi-Wavelength Photonic Encryption via Thickness-Modulated Chiral Liquid Crystal Elastomers

Seungmin Nam (Chosun Univ., Korea), Seohyun Woo, Ji Yoon Park, and Su Seok Choi (POSTECH, Korea)

IMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	61. Oxide TFTs II
Session Date:	August 22 (Fri.), 2025
Session Time:	15:50-17:20
Session Room:	Room E (311~312)
Session Chair(s):	Prof. Shengdong Zhang (Peking Univ., China) Prof. Junhwan Choi (Dankook Univ., Korea)

[E61-1] [Invited]	15:50-16:15
--------------------------	--------------------

Materials Genome of H-Doped α -IGZO with Variable Metal Composition

Julia E. Medvedeva (Missouri Univ. of Science and Tech., USA)

[E61-2] [Invited]	16:15-16:40
--------------------------	--------------------

Innovative Applications of Thin-Film Transistors (TFTs) Technology for Novel Display, Active-Matrix sensing and on-Chip DNA Synthesis

Jiangwen Du, Zhe Liu, Ye Xiao, Suman Huo, Fan Wu, and Linrun Feng (LinkZill, China)

[E61-3] [Invited]	16:40-17:05
--------------------------	--------------------

A Transmissive Holographic Backplane with Sub-Micron-Channel Vertical TFTs for High-Aperture Pixel Arrays

Jae-Eun Pi, Sungmok Jo, Ji Hun Choi, Jong-Heon Yang, Yong-Hae Kim, Yong-Duck Kim, Hee-Ok Kim, Seung-Youl Kang, Jaehyun Moon, Sanghoon Cheon, and Chi-Sun Hwang (ETRI, Korea)

[E61-4]	17:05-17:20
----------------	--------------------

Influence of Hydrogen Defect Control on the Ultra-High Mobility IGZO Thin-Film Transistors

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

iMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	62. Applied Vision/Human Factors II
Session Date:	August 22 (Fri.), 2025
Session Time:	15:50-17:20
Session Room:	Room F (313)
Session Chair(s):	Dr. Jae Joong Kwon (Samsung Display Co., Ltd., Korea) Dr. Johan Berquist (Consultant, Japan)

[F62-1] [Invited]	15:50-16:15
--------------------------	--------------------

Analysis for Evaluating HDR Color Range and Perceived Brightness

Dale Stolzka (Samsung Display Co., Ltd., America Lab, USA)

[F62-2] [Invited]	16:15-16:40
--------------------------	--------------------

Effects of Duty Ratio and Eye Movements on Perceived Quality of Displayed Motion

Chang-Yeong Han, Eun Cho (UNIST, Korea), Hyosun Kim (Samsung Display Co., Ltd., Korea), and Oh-Sang Kwon (UNIST, Korea)

[F62-3] [Invited]	16:40-17:05
--------------------------	--------------------

New Design Factor for Wide Color Gamut Displays

Jang Jin Yoo, Junwoo Jang, Joon Young Yang, and Soo-Young Yoon (LG Display Co., Ltd., Korea)

[F62-4]	17:05-17:20
----------------	--------------------

Comparison of Stereoscopic Effects between a Real Object's Aerial Image and a Flat One

Hiroto Akazawa (Tokushima Univ., Japan), Munekazu Date (Tokushima Bunri Univ., Japan), Haruki Mizushima (Tokushima Univ. & Shinshu Univ., Japan), and Kenji Yamamoto (Tokushima Univ., Japan)

Session Title:	63. Advanced Device for Interactive System
Session Date:	August 22 (Fri.), 2025
Session Time:	15:50-17:10
Session Room:	Room G (314~315)
Session Chair(s):	Prof. Jiwoong Yang (DGIST, Korea) Prof. Kyoseung Sim (UNIST, Korea)

[G63-1] [Invited]

15:50-16:15

Flexible Optical Pressure Sensor based on Organic Imager

Tomoyuki Yokota (Univ. of Tokyo, Japan)

[G63-2] [Invited]

16:15-16:40

Magnetic Anisotropy in Materials for Human-Interactive Devices and Soft Robotic Applications

Minjeong Ha (GIST, Korea)

[G63-3]

16:40-16:55

Suppressing Iodide Ion Migration for Enhanced Operational Stability of Perovskite Photodetectors via Naphthalene Diimides

Chuan-Jun Wang, Abhisek Panda, and Chih-Yu Chang (Nat'l Taiwan Univ. of Science and Tech., Taiwan)

[G63-4]

16:55-17:10

Wearable Stacked Array Heater–Organic Light-Emitting Diodes for Theranostics Platform and Display

Yuhwa Bak, Sang Jik Kwon, Eou-Sik Cho (Gachon Univ., Korea), and Yongmin Jeon (Kyung Hee Univ., Korea)

IMiD 2025

The 25th International Meeting on Information Display
August 19-22, 2025 / BEXCO, BUSAN, KOREA

Session Title:	64. Optoelectronic Devices for Display
Session Date:	August 22 (Fri.), 2025
Session Time:	15:50-17:20
Session Room:	Room H (316~317)
Session Chair(s):	Dr. Jong Hyun Park (LG Display Co., Ltd., Korea) Prof. Chih-Yu Chang (Nat'l Taiwan Univ. of Science and Tech., Taiwan)

[H64-1] [Invited]

15:50-16:15

Integrating AI into the Design of Narrowband Organic Emitters

Tianhao Tan, Mianzhi Pan, Yawen Ouyang, Qian Jin, Lian Duan, Hao Zhou, and Dong Wang (Tsinghua Univ., China)

[H64-2] [Invited]

16:15-16:40

SDOI Strategy for Efficient All-Evaporated Perovskite Light-Emitting Diodes

Zhiyuan He, Runda Guo, and Lei Wang (Huazhong Univ. of Science and Tech., China)

[H64-3] [Invited]

16:40-17:05

Advancing Green and Red Perovskite QD-LEDs: Role of NiO_x Layers and Interface Design

Liang-Yih Chen, Jun-Min Li, Hsiang-Chi Wang, Yi-Qi Tu, and Yan-Ting Liu (Nat'l Taiwan Univ. of Science and Tech., Taiwan)

[H64-4]

17:05-17:20

Highly Efficient and Stable Self-Powered Perovskite Photodetectors Enabled by Additive Engineering Using an Easily Accessible Zwitterionic Molecule

Yi-Chen Lin, Abhisek Panda, and Chih-Yu Chang (Nat'l Taiwan Univ. of Science and Tech., Taiwan)

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 OLEDs 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 (Kyung Sung Univ., Korea)

[P1-016]

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

Jae Uk Yun and Taek Ahn (Kyung Sung 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)

[P1-102]

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

Dowan Kang, Juyoung Yun, and Yoonyoung Chung (POSTECH, Korea)

[P1-114]

Optimizing TIP in Manufacturing Facilities Using AI based on Digital Twin

Seki Park, Hyeonji Son, Sanghwa Lee, and Junghoon Kim, Dongwon Han (Samsung Display Co., Ltd., Korea), Junwoo Lim, EunYoung Choi, Seoyoung Jo, Hyun Seok Lee, and Sang Do Noh (Sungkyunkwan Univ., Korea)

[P1-115]

The Relationship Between Metal Layer Design and ESD Failure Mechanism of Hybrid Oxide Panel Using Electromagnetic Simulation

Young-Gu Kang, HyeonDo Park, Minji Kim, Dongjin Seo, Hyun Sung Park, Jangwoo Kim, and Seung-in Baek (Samsung Display Co., Ltd., Korea)

[P1-116]

Optimization of ESC Electrode to Increase Life of Large Area Evaporation Equipment through Finite Element Simulation

HyeonDo Park, Young-Gu Kang, Hyunsung Park, Yujin Choi, Jangwoo Kim, and Seung-in Baek (Samsung Display Co., Ltd., Korea)

[P1-117]

Improvement Strategy for Defects Caused by Displacement Current During Manufacturing Processes Using Simulation

Sooyoung Park, Hyeseok Na, Hyunsung Park, Jangwoo Kim, and Seungin Baek (Samsung Display Co., Ltd., Korea)

[P1-118]

Optimization of PCB Layers and Areas Using Machine Learning

Sung-Kwon Kim, Yong-Sang Cho, Ji-Won Kim, Hyun-Sung Park, and Seung-In Baek (Samsung Display Co., Ltd., Korea)

[P1-119]

A Methodology of Pixel Cross Talk Simulation for AMOLED Display

Wonjun Lee, Yooseok Jang, Cholho Kim, Haeryeong Park, Jewon Yoo, and Seungin Baek (Samsung Display Co., Ltd., Korea)

[P1-120]

Representative Volume Element-Based Warpage Modeling of Fine Silicon Masks

Dongyeol Lee, Min-gu Kim, Min-ju Jung, Daeyong Kim, Jangwoo Kim, and Seung-in Baek (Samsung Display Co., Ltd., Korea)

[P1-121]

Composition-Dependent Structural and Dynamic Properties of IGZO TFTs: Molecular Dynamics Simulations Using AI Force Field

Gyehyun Park, Rokyeon Kim, Sang-Hoon Lee, Eui-Cheol Shin, Eunkyung Koh, Hyeondeuk Kim, and Seungin Baek (Samsung Display Co., Ltd., Korea)

[P1-122]

EDS Spectrum Analysis of Defects in OLED Display Using Multi-Label Classification

Yonghoon Kim and Seokyeon Yang (Samsung Display Co., Ltd., Korea)

[P1-123]

Topological Data Analysis Reveals Quantitative Criteria for Large-Scale Electronic Structure of Amorphous Materials

Eui-Cheol Shin, Rokyeon Kim, Sang-Hoon Lee, Eunkyung Koh, Hyeon-Deuk Kim, and Seungjin Baek (Samsung Display Co., Ltd., Korea)

[P1-124]

Deep Learning for Process Automation: Classification Model for Manufacturing Assessment

Hyemin Lee, Yongmoon Jeon, Jungwoong Kim, and Jaewon Kim (Samsung Display Co., Ltd., Korea)

[P1-125]

Generative AI-Enhanced Classification for Touch Screen Panel Inspection with Limited Defective Samples

Kyungeun Kim, Haneol Kim, and Donggon Yoo (Samsung Display Co., Ltd., Korea)

[P1-126]

Extensive Augmentation for Defect Severity Estimation via Randomized Synthetic Data Generation

Haru Moon and Eunwoo Kim (Samsung Display Co., Ltd., Korea)

[P1-127]

Detection of Suspect Equipment in Display Manufacturing with Extremely Low Defect Data Using Anomaly Detection

Jongmyong Choi, Taewoon Na, Jung Suk Hahn, Hongsup Oh, Junoh Kwon (Samsung Display Co., Ltd., Korea), Hoyeon Lee, Yujun Yang, Donghwan Kim, Yongmin Kim, Hyunsoo Yoon (Yonsei Univ., Korea), and Jaewon Kim (Samsung Display Co., Ltd., Korea)

[P1-128]

Dynamic Attention Diffusion Model for Defect Focused Learning on Display Circuits

Eun-Chul Ko, Han-Eol Kim, Dong-Gon Yoo, and Sang-Rock Son (Samsung Display Co., Ltd., Korea)

[P1-129]

Tandem OLED Device Simulation based on Coupled Electro-Optical Analysis Using the Charge Generation Model

Hyung Uk Cho, Junyoung Lee, Kyungbok Choi, Jintaek Cho, Bowoon Kim, Richard James, Seungin Baek, and Changhee Lee (Samsung Display Co., Ltd., Korea)

[P1-130]

Convolutional Mixture Density Networks for Accurate and Probabilistic Inverse Design of Metal-Insulator-Metal Structures

Kim Eui Joon, Ki Won Jeong, and Yun Seon Do (Kyungpook Nat'l Univ., Korea)

[P1-131]

Physics-Informed Neural Network for Nanohole-Based Metasurface Color Filter Design

Ki Won Jeong and Yun Seon Do (Kyungpook Nat'l Univ., Korea)

[P1-132]

A Model for Automatic Detection of False Interlocks Using the TSC Algorithm

Hwayoun You, Doyoon Kim, Younggil Jin, and Jaewon Kim (Samsung Display Co., Ltd., Korea)

[P1-133]

Dynamic Patterning Mini-LED Lighting Array Driving System

Satoshi Ikeda (Panasonic Co., Japan), Yuto Tomita, and Kimihiro Nishijima (Sojo Univ., Japan)

[P1-134]

FLOAT: Floating Display Platform Using Bowl-Like Flying Object for Aerial Signage which Enables to Make Long Stay in the Air

Kunio Sakamoto and Hiroto Matsumoto (Konan Univ., Japan)

[P1-135]

Enhancing Threshold Voltage Stability in Low-Temperature Processed IGZO TFTs

Gahong Lee, Yunhui Jang, and Junsin Yi (Sungkyunkwan Univ., Korea)

[P1-136]

Q-Node-Shared Scan Driver with Parallel Separation for Multiple Outputs

Sang-Hoon Kim, Won-Been Jeong, and Seung-Woo Lee (Kyung Hee Univ., Korea)

[P1-137]

A Scan Driver Circuit Reducing Delay Time Variations between Multiple Output Signals

Eunho Kim (Sungkyunkwan Univ., Korea), Kyungho Kim, Jun-hyun Park, Yunmi Kim, Sanghwan Cho (Samsung Display Co., Ltd., Korea), and Yong-Sang Kim (Sungkyunkwan Univ., Korea)

[P1-138]

Cell-Level DC/DC Converter for Driving Portable Display

Taeho Seo, Seungho Choi, Imbo Kong, and Wook-Sung Kim (POSTECH, Korea)

[P1-139]

Selective Scan Driver Circuit Using Double-Gate IGZO TFTs for Multi-Refresh Rates

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

[P1-140]

Micro-LED Pixel Circuit for High Resolution Mobile Displays

Joon-Sung Choi, Kook Chul Moon, and Yong-Sang Kim (Sungkyunkwan Univ., Korea)

[P1-141]

Integrated Driver Circuit to Generate Step and Sweep Signals for Progressive Emission Micro-LED Displays

Joon-Sung Choi, Kook Chul Moon, and Yong-Sang Kim (Sungkyunkwan Univ., Korea)

[P1-142]

A Novel Sweep Signal Generation Driver Using Current Copy Method

Su-Hyeong Kim, Won-Been Jeong, Sang-Hoon Kim (Kyung Hee Univ., Korea), Hoon-Ju Chung (Kumoh Nat'l Inst. of Tech., Korea), and Seung-Woo Lee (Kyung Hee Univ., Korea)

[P1-143]

Performance Optimization of Tellurium Thin-Film Transistors via Thermal ALD Al_2O_3 Deposition Temperature Control

Seo-Yeong Kim, Haklim Koo, and Jin-Seong Park (Hanyang Univ., Korea)

[P1-144]

Enhanced Mechanical Reliability of InZnO TFTs with Patterned Island-Bridge Structures via AP S-ALD for Stretchable Displays

Min-Seo Kim, Won-Bum Lee, Chi-Hoon Lee, and Jin-Seong Park (Hanyang Univ., Korea)

[P1-145]

A Numerical and Perceptual Simulation Kit Enabling Virtual FALD and BLU Prototyping

Julian Ritter, Ramazan Ayasli, Maria Cirillo, and Chihao Xu (Saarland Univ., Germany)

[P1-146]

Micro-LED Pixel Circuit with LTPO Inverter Using Current Copy Compensation

Sang-Hoon Kim, Won-Been Jeong, Su-Hyeong Kim (Kyung Hee Univ., Korea), Hoon-Ju Chung (Kumoh Nat'l Inst. of Tech., Korea), and Seung-Woo Lee (Kyung Hee Univ., Korea)

[P1-147]

A Fast and Accurate IR-Drop Simulation Method for AMOLED Displays

Younsik Kim, Jeong-yun Lee, and Jaemyung Lim (Hanyang Univ., Korea)

[P1-148]

Drain-Voltage-Controlled Pixel Circuit for Low-Power OLEDoS Microdisplays

Kwanwoo Kim, Jisoo Choi, and Jaemyung Lim (Hanyang Univ., Korea)

[P1-149]

α -IGZO TFT-Based Region-Selective Masking Scan Driver for Long Pulse Width

Moonseok Jung (Seoul Nat'l Univ. & LG Display Co., Ltd., Korea) and Soo-Yeon Lee (Seoul Nat'l Univ., Korea)

[P1-150]

Diode-Connected TFTs for Suppressing Crosstalk Effect in SWEEP Generation Circuits for MicroLED Displays

Saeru Cheon, Ji-Hwan Park, Chanjin Park (Seoul Nat'l Univ., Korea), Kyung-Hoon Chung, Sehyun Lee (Samsung Display Co., Ltd., Korea), and Soo-Yeon Lee (Seoul Nat'l Univ., Korea)

[P1-151]

A Scan Driver for High-Speed Driving and Luminance Uniformity Improvement of Oxide-Based Display

Dan Won Lim, Hyun Joon Kim, Jung Hwan Hwang, Min Do Heo, Yoo Mi Ra, and Sang Hwan Cho (Samsung Display Co., Ltd., Korea)

[P1-152]

Enhanced Organic Photodetector Performance by Controlling the Doping Ratio of IGZO as a Hole Blocking Layer

Gun woong Kim, Jaebum Jeong, and Jun Young Kim (Gyeongsang Nat'l Univ., Korea)

[P1-153]

Post-Training Quantization for Depth Anythin

Jincheol Yang, Matti Zinke, Jaemin Choi (Sogang Univ., Korea), Sanggu Lee, Hyunyoung Choi, Hyunguk Cho (Samsung Display Co., Ltd., Korea), and Suk-Ju Kang (Sogang Univ., Korea)

[P1-154]

On-Device Monocular Depth Estimation Network Optimization

Matti Zinke, Jincheol Yang, Jaemin Choi (Sogang Univ., Korea), Sango Lee, Hyunyoung Choi, Hyunguk Cho (Samsung Display Co., Ltd., Korea), and Suk-Ju Kang (Sogang Univ., Korea)

[P1-155]

Ultra Low-Power Scan Driver based on a-IGZO TFTs for Various Frame Rates

Dongseok Kim, Hyunwoo Kim, and Hojin Lee (Soongsil Univ., Korea)

[P1-156]

Improved Reliability at Low Activation Temperature by Lightly Doped Drain in Low Temperature Polycrystalline Silicon Thin Film Transistors

Daeho Kim (Samsung Display Co., Ltd., Korea)

[P1-157]

Selective Row Driving Gate Driver on Array

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

[P1-158]

A 4T1C Decoder-Type Scan Driver for Next-Generation Flexible Displays

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

[P1-159]

FCM: Feature Concatenation Module for Anomaly Detection in High-Resolution Images

Tae-Woo Kim (Sogang Univ., Korea), Han-Eol Kim, Seung-Gi Kim (Samsung Display Co., Ltd., Korea), and Suk-Ju Kang (Sogang Univ., Korea)

[P1-160]

A-IGZO TFT Gate Driver Generating Dual Scan Signals with Varying Duty Ratio

Chaeyeon Park, Dongseok Kim, Hyunwoo Kim, and Hojin Lee (Soongsil Univ., Korea)

[P1-161]

PCB Design on Interconnections (Ground Void) for 10Gbps Signal Integrity

Min-Woo kim, Wonsik Oh, Kwanghyun Baek, and Donghak Pyo (Samsung Display Co., Ltd., Korea)

[P1-162]

A-IGZO TFT-Based Multi-Output Gate Driver for LTPO Displays

Hee Jae Kang, Dongseok Kim, Hyunwoo Kim, and Hojin Lee (Soongsil Univ., Korea)

[P1-163]

Compact Slew-Rate Enhanced Class-AB Buffer Amplifier for OLED Displays

Dong-Hyun Kim (Hanyang Univ., Korea), Chan-Keun Kwon (Samsung Display Co., Ltd., Korea), and Jong-Seok Kim (Hanyang Univ., Korea)

[P1-164]

Design of Inductive-Inductive-Capacitive (LLC) Hybrid Touch Sensor for Large-Area Bottom-Emission OLED Displays

Myeong-Cheol Hyun, Seong-Ro Lee, Jae-Ha Lee, Jae-Sung An (Hanyang Univ., Korea), Jae-Hun Ye (LG Japan Lab Inc., Japan), Duhyun Jeon, Myeong-Jun Kim, and Jong-Seok Kim (Hanyang Univ., Korea)

[P1-165]

Slew-Rate Enhanced Buffer Amplifier with Output-Current Boosting Technique for OLED Displays

Chong-Hwa Bae and Jong-Seok Kim (Hanyang Univ., Korea)

[P1-166]

Proposal of a Data Acquisition Method for Self-Calibration of Ultra-Large Micro-LED Modular Display Systems

Hyun-gi Kim, Jung-Hyun Kim (KOPTI, Korea), Su-Hyeong Kim, Seung-Woo Lee (Kyung Hee Univ., Korea), and Sung-Hoon Hong (Chonnam Nat'l Univ., Korea)

[P1-167]

A Self-Compensating Pixel Circuit for IR Drop Reduction in LTPO-Based AMOLED Displays

Jaesung Kim (Yonsei Univ. & LG Display Co., Ltd., Korea), I. Sak Lee (LG Display Co., Ltd., Korea), Ji Yeong Park (Yonsei Univ., Korea), Seung Hee Kang, Joon Seok Yoo, Sang Yoon Park (LG Display Co., Ltd., Korea), and Hyun Jae Kim (Yonsei Univ., Korea)

[P1-168]

A New Amorphous Indium-Gallium Zinc Oxide Thin-Film Transistor MicroLED Pixel Circuit for Constant and Uniform Driving Current

Ji-Hwan Park, Kyeong-Soo Kang, Saeru Cheon, and Soo-Yeon Lee (Seoul Nat'l Univ., Korea)

[P1-169]

High-Speed and Reliable Logic Operation Using Inverted-Staggered Bottom-Gate a IGZO Thin-Film Transistors

Hyungjun Kim, Sunkook Kim, and Yongin Cho (Sungkyunkwan Univ., Korea)

[P1-170]

Metasurface-Integrated LEDs for Optics-Free Augmented Reality Displays

Juyong Kim, Heechan Lim, and Jaesang Lee (Seoul Nat'l Univ., Korea)

[P1-171]

High-Precision Microchip Transfer via Optimized Blister-Driven LIFT Process

Seong Ryu (Pusan Nat'l Univ., Korea), Jong-Seong Bae (KBSI, Korea), and Seung-Ki Lee (Pusan Nat'l Univ., Korea)

[P1-172]

Mass Transfer of Micro-LEDs via Roll-to-Plate Process for Next-Generation Transparent and Flexible Displays

Hyeon-Don Kim (KIMM, Korea), Dawoon Jo (KIMM, Korea), Bongkyun Jang (KIMM, Korea), Eunjin Hwang (KIMM & Hanyang Univ., Korea), Seojin Hong, Kwang-Seop Kim, and Jae-Hyun Kim (KIMM, Korea)

[P1-173]

Investigation of a Bias-Dependent Photoluminescence Method for Understanding Carrier Transport and Quantum Well Properties in Micro-LEDs

Joongjin Pi, Youngwook Shin, and Jaekyun Kim (Hanyang Univ., Korea)

[P1-174]

Analysis of Local Indium Composition of InGaN-Based Red Micro LEDs Using Confocal Microscopy

Jinchan Seo, Youngwook Shin, and Jaekyun Kim (Hanyang Univ., Korea)

[P1-175]

Comparative Study of Passivation Methods for Enhanced Electrical and Optical Properties of 395 nm UV Micro-LEDs

Kijun Kwon, Byeong-U Park, and Jaekyun Kim (Hanyang Univ., Korea)

[P1-176]

Improving the Light Conversion Efficiency of Perovskite Color Conversion Layers for Micro-LED Displays via Refractive Index Engineering

Qing Zhao, Zhipeng Feng, Zeyue Xie (Shenzhen Univ., China), Fion Yeung (Hong Kong Univ. of Science and Tech., Hong Kong), Rongsheng Chen (South China Univ. of Tech., China), Lei Lu (Peking Univ., China), and Li Guijun (Shenzhen Univ., China)

[P1-177]

Repurposing Alumina Recovered from Spent Catalyst Supports for YAG Phosphors as Candidates for Display Applications

Jae Hyeok Lee, Seon Yeong Lee, Seok Bin Kwon, Seung Hee Choi, and Young Hyun Song (KOPTI, Korea)

[P1-178]

Size-Dependent Electrical and Optical Characteristics of GaN-Based UV-A MicroLEDs for Next-Generation Display Applications

Byeong-U Bak, Kijun Kwon, and Jaekyun Kim (Hanyang Univ., Korea)

[P1-179]

Enhanced Carrier Confinement and Reduced Leakage Current by Atomic Layer Deposited HfO₂ Passivation in Micro LEDs

Taein Kim and Jaekyun Kim (Hanyang Univ., Korea)

[P1-180]

Study of the Receiving Layer Characteristics for the Contactless Micro-LED Laser-Based Mass Transfer

Heumell Baek, SungMoo Kim, Gi-Hong Kim, and JoonYoung Yang (LG Display Co., Ltd., Korea)

[P1-181]

Revealing the Optoelectronic Performance of InGaN/GaN Red Micro-LEDs

H. Lee, A. B. M. Hamidul Islam, J. Oh, M. Kim, C. Park, Y.-J. Cha, and J. S. Kwak (Korea Inst. of Energy Tech., Korea)

[P1-182]

Two-Step Mixed Alloy-Based Assembly for Enhancing the Reliability and Durability of Micro-LED Displays Using Fluidic Self-Assembly (FSA) Technology

Yongjae Song, Kyeongmin Ryu, and Daewon Lee (Hanyang Univ., Korea)

[P1-183]

Photoresist Assisted to Array Heterogeneous Particles in Fluidic Self-Assembly

Jaesung Park, Jiae Kim, and Daewon Lee (Hanyang Univ., Korea)

[P1-184]

Development of a Multilayer Substrate for Randomly Oriented LED Chips via Fluidic Self-Assembly and TSV Technology

Yoonmo Koo, Kyeongmin Ryu, and Daewon Lee (Hanyang Univ., Korea)

[P1-185]

Demonstration of Monolithic 3D Integrated Red μ LED Display on Si CMOS ICs for AR/VR Applications

Juhyuk Park (KAIST, Korea), Hokwon Kim, Yongil Kim (RaonTech Inc., Korea), Woojin Baek, Hyunsu Kim, and Sanghyeon Kim (KAIST, Korea)

[P1-186]

Micro-LED Assembly via Multiple Simultaneous Transfer and Bonding (SITRAB) Technology

Jungho Shin, Jiho Joo, Gwang-Mun Choi, Chanmi Lee, Ki-seok Jang, Jin-hyuk Oh, Ga-Eun Lee, Seong Cheol Kim, Yong-Sung Eom, and Kwang-Seong Choi (ETRI, Korea)

[P1-187]

Understanding the Electrical Characteristics of GaN-Based Light-Emitting Diodes at Cryogenic Temperatures with the Radiative Ideality Factor

Jinkyu Seong, Sangjin Min, Yuseong Jang, Jong-In Shim, and Dong-Soo Shin (Hanyang Univ., Korea)

[P1-188]

A Novel Single-Step Mass Transfer Process for High-Yield Micro-LED Integration Toward High-Resolution Displays

Junhyeock Kim (Pusan Nat'l Univ., Korea), Hyunggu Kim, Junbeom Park, Sanghoon Han, and Tak Jung (KOPTI, Korea), and Changmo Kang (Pusan Nat'l Univ., Korea)

[P1-189]

Influence of Passivation Properties on the Temperature of the Micro-LED Analyzed by Thermal Equivalent Circuit

Hae Lam Jeon, Sangjin Min, Jong-In Shim, and Dong-Soo Shin (Hanyang Univ., Korea)

[P1-190]

Efficient Binary Mixed Nano-Dots Color Conversion Film based on Förster Resonance Energy Transfer for Micro-LED Display

Rasheeda Ansari, Subramanian Muruganantham, and Jang Hyuk Kwon (Kyung Hee Univ., Korea)

[P1-191]

Magnetically Self-Assembled Stretchable Anisotropic Conductive Film (S-ACF) for Skin-like Displays

Minhu Jeon and Byeongmoon Lee (DGIST, Korea)

[P1-192]

Active-Matrix Micro-LED Display Using Transferred Silicon Nanomembrane Based Thin Film Transistors

Jeehoon Ryu, Seungsoo Kim, and Jong-Hyun Ahn (Yonsei Univ., Korea)

[P1-193]

Micro-LED Display based on 2D-Transition Metal Dichalcogenide Transistor via Wafer Bonding Transfer

Seungsoo Kim, Jeehoon Ryu, and Jong-Hyun Ahn (Yonsei Univ., Korea)

[P1-194]

Modular Gate Driver Integration in Active Array for Large-Size Automotive OLED Displays

Dahye Shim (Yonsei Univ. & LG Display Co., Ltd, Korea), Sujin Lee (Yonsei Univ., Korea), Yong-Min Jeong (Yonsei Univ. & LG Display Co., Ltd, Korea), Eui-Hyun Chung, Chul Nam, Sanghoon Jung, Joonyoung Yang (LG Display Co., Ltd, Korea), and Hyun Jae Kim (Yonsei Univ., Korea)

[P1-195]

Flexible IGZO TFTs with Plasma-Enabled Ferroelectric HZO for Low-Voltage Operation and Mechanical Reliability

Jimin Kim (Sungkyunkwan Univ., Korea), Hyun Yeol Rho (Sungkyunkwan Univ., Korea), and Sunkook Kim (Sungkyunkwan Univ., Korea)

[P1-196]

Optimization of α -IGZTO Thin Film Transistor via Sn-H Coupling Effect with $\text{SiO}_2/\text{Al}_2\text{O}_3$ Gate Insulator Stacks

Yeonghun Kim, Yena Kim, Gwang-Bok Kim, and Jae Kyeong Jeong (Hanyang Univ., Korea)

[P1-197]

Enhancing Ambipolar Characteristics in Tin Oxide Thin Film Transistors Using Hydrogen Plasma Treatment

Yeong-Gwon Jeong, Hyeon-Woo Lee, and Hyuck-In Kwon (Chung-Ang Univ., Korea)

[P1-198]

Engineering Vacancy-Tuned Copper Iodide Semiconductors for Next-Generation High-Performance p-Type Thin-Film Transistors

Chang-Hyeon Kim, Chae-Eun Oh, Dong-Hwi Son, and Hyuck-In Kwon (Chung-Ang Univ., Korea)

[P1-199]

Impact of Separate Two-Step Annealing Temperature on Electrical Characteristics of α -IGZO TFTs

Donghyun Kim and Byoungdeog Choi (Sungkyunkwan Univ., Korea)

[P1-200]

Performance Enhancement of Oxide-Based Source-Gated Transistors via Structural and Contact Engineering

JaeYoon Jeong (DGIST & UNIST, Korea) Heeyeon Noh, Haripriya G. R. (DGIST, Korea), Junghwan Kim (UNIST, Korea), and Hyeon-Jun Lee (DGIST, Korea)

[P1-201]

Electrical Characteristics of Amorphous-Indium-Gallium-Zinc-Oxide Thin Films and Thin Film Transistors : Impact of Gate Insulator Deposition and Rapid Thermal Annealing

Inkyu Yoon (Korea Univ., Korea), Kanghyun Kim (Samsung Display Co., Ltd., Korea), Donghyun Kim, Sang Hyeok Kim, So Mi Lee, Lae Hyeong Jeong, Yunhye Chang, Sukyeong Kang, and Jae Woo Lee (Korea Univ., Korea)

[P1-202]

Low-Temperature IGTO TFT Activation via UV-Ozone Surface Treatment for Flexible and Transparent Display

Sungwoo Jung and Byoungdeog Choi (Sungkyunkwan Univ., Korea)

[P1-203]

Rare-Earth Element Integration: Robust Channel Networks and Orbital-Synergistic Conduction for Advanced Oxide TFTs

Ji Yeong Park, I. Sak Lee, Jong Bin An, Subi Choi, and Hyun Jae Kim (Yonsei Univ., Korea)

[P1-204]

Effect of Electric Field Concentration Induced by Ring-Contacted IGTO / Al Electrode on Dielectric Breakdown Characteristics

Junghwan Moon and Byoungdeog Choi (Sungkyunkwan Univ., Korea)

[P1-205]

Self-Aligned Density-Modulated Carbon Nanotube Thin-Film Transistors via Site-Selective Fullerene Inkjet Printing for Enhanced Mobility and On/Off Ratio

Chea-Young Lee, Hayun Kim, and Yongtaek Hong (Seoul Nat'l Univ., Korea)

[P1-206]

Simultaneous Capacitance Matching and Ferroelectric Phase Transition in HZO-Based NCFETs via IGZO/Al₂O₃ Stack

Nam Su Heo, Jae Seong Han, Ju Hyun Lee, Subi Choi, and Hyun Jae Kim (Yonsei Univ., Korea)

[P1-207]

A Study of an OS-Based 2T0C DRAM Architecture for AR/VR Display Using Monolithic 3D Technology

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

[P1-208]

Selective Crystallization of IGO/IGZO Bilayer with Ultraviolet-Assisted Annealing for High Mobility and Stability Oxide Thin-Film Transistors

Jae Seong Yun, Dong Keun Lee, Seok Gyu Hong, Yong Seon Hwang, Hwa Seon Kim, Kyu Min Kim, and Hyun Jae Kim (Yonsei Univ., Korea)

[P1-209]

Optimization of Gate Insulator for High-Performance Top Gate IGZO Thin-Film Transistors

Min Sun Kim and Jae Kyeong Jeong (Hanyang Univ., Korea)

[P1-210]

Optimization of Oxygen Plasma Conditions during ALD of Al₂O₃ Gate Insulator Based Top-Gate IGZO TFT

Sung Ha Lee, Joo Hee Jeong, and Jae Kyeong Jeong (Hanyang Univ., Korea)

[P1-211]

Simultaneous Enhancement of Mobility and Stability in Top-Gate IGZTO TFTs via Sn Content Optimization

Hwa Seon Kim, Dong Keun Lee, Ji Yeong Park, Sun Min Song, Hye Jin Son, Jae Seong Yun, and Hyun Jae Kim (Yonsei Univ., Korea)

[P1-212]

Thermally Stable Zr-Doped Indium Gallium Oxide TFTs Enabled by Low-Temperature Crystallization

Sun Min Song, Jong Hyuk Ahn, Kunho Moon, Dong Keun Lee, Hye Jin Son, and Hyun Jae Kim (Yonsei Univ., Korea)

[P1-213]

Tailoring VO Stratum Structured (VSS) IGZO Channels by Atomic Layer Deposition to Overcome the Mobility-Stability Trade-Off

Subi Choi, Jae Seong Han, Ju Hyun Lee, Nam Su Heo, Ji Yeong Park, and Hyun Jae Kim (Yonsei Univ., Korea)

[P1-214]

Electrohydrodynamic Jet-Printed Quantum Dot Absorption Layer for Enhancing Visible Light Detection of IGZO-Based Phototransistors

Dong Keun Lee (Yonsei Univ., Korea) Jae Won Na (ETRI, Korea), Yong Seon Hwan, Jae Seong Yun, and Hyun Jae Kim (Yonsei Univ., Korea)

[P1-215]

Fabrication of Oxide-Channel Gate-All-Around Transistors for High-Density AR/VR Applications

Jaehyun Park and Jae Kyeong Jeong (Hanyang Univ., Korea)

[P1-216]

Misinterpretation of Oxygen Vacancies in XPS: Correcting the Oxygen Vacancy Analysis of the Oxide Semiconductor

Jiho Yeom, Jinho Yun, Minju Song, Minseok kyung, and Junghwan Kim (UNIST, Korea)

[P1-217]

Trap-Assisted Displacement Current in Oxide TFTs : Unveiling the Reverse Leakage Phenomenon under OFF-State

Moonsoo Kim and Byoungdeog Choi (Sungkyunkwan Univ., Korea)

[P1-218]

Predicting Light Extraction Efficiency for Periodically Corrugated Light Emitting Devices Enabled by Machine Learning

Jeongmin Shin and Min Seok Jang (KAIST, Korea)

[P1-219]

Unsupervised Deep Learning-Based Anomaly Detection in Semiconductor Display Equipment Using Transformer and CNN Autoencoders

Eugene Jeon and Yeonhee Kim (Hoseo Univ., Korea)

[P1-220]

Research on Printed Circuit Boards (PCB) Defect Detection Algorithm based on Convolutional Neural Networks (CNN)

Ni Zhiduan, EugeneJeon, and YeonheeKim (Hoseo Univ., Korea)

[P1-221]

A Simulation Approach for Deposition Topology of IGZO Using Molecular Dynamics

Youngwan Kim, Minami Daiki, Sunkyung Cha, Eunseok Song, Hanhee Kim, JoonYoung Yang, and SooYoung Yoon (LG Display Co., Ltd., Korea)

[P1-222]

A Study on Mechanical Simulation for Stress Reduction of Ultra-Thin Glass for Foldable Displays: Optimization of Folding-Area Etching Types and Parameters

Hyeon-Do Choi, Si-Ung Kim, Hyung-Chul Kim, and Kwan-Young Han (Dankook Univ., Korea)

[P1-223]

Non-Equilibrium Simulation Study on the Non-Linear Mechanical Properties of Semi-Crystalline Block Copolymers

Hyungshick Park (Sogang Univ., Korea), Sangin Park (Hyundai Motor Company, Korea), and Bong June Sung (Sogang Univ., Korea)

[P1-224]

Area-Adaptive Multi-Frequency Driving Enables Power-Efficient LTPO Displays without Bezel Expansion

Yong-Min Jeong (Yonsei Univ. & LG Display Co., Ltd., Korea), Sun Min Song, Yong Seon Hwang (Yonsei Univ., Korea), Dahye Shim (Yonsei Univ. & LG Display Co., Ltd., Korea), and Hyun Jae Kim (Yeonsei Univ., Korea)

[P1-225]

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

Deuksu Lee, Namyong Gong, Seungrok Shin, Sanghoon Jung, Joonyoung Yang, and Sooyoung Yoon (LG Display Co., Ltd., Korea)

[P1-226]

Global Current Adjustment Method in Self-Emissive Panels

JoonYoung Kim, JinSung Kim, JoonYoung Yang, and SooYoung Yoon (LG Display Co., Ltd., Korea)

[P1-227]

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

Dong Sup Sim (Yonsei Univ. & LG Display Co., Ltd., Korea) Sun Min Song (Yeonsei Univ., Korea), Jun Hwan Noh, Nack Bong Choi, Sang Yoon Park (LG Display Co., Ltd., Korea), and Hyun Jae Kim (Yonsei Univ., Korea)

[P1-228]

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

Hwak-Dong Park, Tae-Gung Kim, Dae-Sung Park, Jin-Sung Kim, and Joon-Young Yang (LG Display Co., Ltd., Korea)

[P1-229]

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

Seong-Ro Lee, Myeong-Cheol Hyun, and Jong-Seok Kim (Hanyang Univ., Korea)

[P1-230]

Micro-Vacuum Suction Force-Assisted Transfer Printing for Soft Optoelectronics

Ki Yun Nam, Sang Hyun Park, and Keon Jae Lee (KAIST, Korea)

[P1-231]

Ultrasonic-Driven Wetting Control in Dip Soldering for Microelectronic Packaging

Hyunjun Kim, Jimin Park, and Daewon Lee (Hanyang Univ., Korea)

[P1-232]

Monolithic Integration of LED and Driving Circuit with a Releasable Structure

Seol Ahn, Ji-Woong Cho, and Yei-Hwan Jung (Hanyang Univ., Korea)

Session Title:	P2. Poster Session 2
Session Date:	August 21 (Thu.), 2025
Session Time:	14:00-15:30
Session Room:	2A Hall

[P2-001]

Fully-Printed Free-Form Flexible Thermoelectric Sensors for Wearable Electronics

Sooyeon Moon (Seoul Nat'l Univ. & Korea Univ., Korea), Sungju Ju, Joo-Won Lee (KIST, Korea), Sohee Jeong, and Seungjun Chung (Korea Univ., Korea)

[P2-002]

Flexible IGZO TFT Arrays Using Laser Lift-Off (LLO) Process and Their Active-Matrix Display Application

Junhyeok Byeon, Yonghun Kim, and Jongwon Yoon (KIMS, Korea)

[P2-003]

Highly Conductive Stretchable Conductors with Minimized Conductive Fillers Contents by Self-Localization of Ag Flakes

Hui Seon Jang, Hoon Yeob Jeong, and Seungjun Chung (Korea Univ., Korea)

[P2-004]

Meta-Elastomer with Gradient Depth Modulus for Multiaxial Strain Programming in Reliable Stretchable Displays

Dong Hyoun Park, Dong Won Lee, Jun-Chan Choi, and Seungjun Chung (Korea Univ., Korea)

[P2-005]

3D-Printed Elastic Interconnects for Highly Integrated Wearable Displays

Young Yun Kim, Hoon Yeub Jeong, and Seungjun Chung (Korea Univ., Korea)

[P2-006]

Enhanced Doping Efficiency Strategy in vdW Heterostructures for Ultra-Thin Flexible 2D Thin-Film Transistors

Jiwoo Yang (Korea Univ. & Seoul Nat'l Univ., Korea), Yongtaek Hong (Seoul Nat'l Univ., Korea), and Seungjun Chung (Korea Univ., Korea)

[P2-007]

Transparent and Intrinsically Stretchable Quantum Dot Light Emitting Diode

Son Woo Jung, Dae Won Yoon, and Dae-Hyeong Kim (IBS & Seoul Nat'l Univ., Korea)

[P2-008]

A Self-Healing Polymer-Enabled Piezo-Triboelectric Sensor Using PDMS/BaTiO₃ Integrated with α -ITZO TFT

Jeongyoon Kim, Byeong-U Bak, Thi Huyen Nguyen, and Jaekyun Kim (Hanyang Univ., Korea)

[P2-009]

Cylindrical Fiber-Based OLEDs with High Horizontal Dipole Orientation Emitters for High-Efficiency Wearable Displays

Dae Hyun Kim, Seong Uk Kong, Eun Hae Cho (KAIST, Korea), Gyeong Seok Lee, Yun-Hi Kim (Gyeongsang Nat'l Univ., Korea), and Kyung Cheol Choi (KAIST, Korea)

[P2-010]

A Study on Hybrid Sheets with Thermal Dissipation and EMI Shielding for Foldable Displays Using PDMS/Nanofiller Composites and Graphite Foil

Hyeon-Do Choi and Kwan-Young Han (Dankook Univ., Korea)

[P2-011]

Distortion-Free, Fabric-Based Stretchable and Wearable White OLED Pixel

Kyeongsik Ko, Ye Ji Shin, Young Woo Kim, Youjin cho, Sang Jik Kwon, Eou-Sik cho (Gachon Univ., Korea), and Yongmin Jeon (Kyung Hee Univ., Korea)

[P2-012]

Stretchable Phototherapy Patch with Integrated Lambertian Reflection-Based Diffusion Structure for Uniform Illumination

Duhyoung Gong, Miri Heo (Dong-A Univ., Korea), Haechang Lee (KIST, Korea), Sunhyoung Koo (KAIST, Korea), Sungyun Kim (Dong-A Univ., Korea), Bongjun Kim (Sookmyung Women's Univ., Korea), Seunghyup Yoo (KAIST, Korea), and Hanul Moon (Dong-A Univ., Korea)

[P2-013]

Enhancing Wettability of Liquid Metal via Multi-Layered Polyelectrolyte Interfaces

Eunjin Jo, Duhyoung Gong, and Hanul Moon (Dong-A Univ., Korea)

[P2-014]

Defect Analysis of Rollable Displays Using Finite Element Methods

Sang Hyun Han, Hak Jun Yang, and Su Seok Choi (POSTECH, Korea)

[P2-016]

Advanced Material Design Approaches for Free-Form Displays Using Colloidal Quantum Dots

Kiwook Kim (DGIST, Korea), Dong Ryong Kim (UNIST, Korea), Kyunghoon Lee (DGIST, Korea), Jisu Yoo (UNIST, Korea), Dong Chan Kim (Gachon Univ., Korea), Moon Kee Choi (UNIST, Korea), and Jiwoong Yang (DGIST, Korea)

[P2-017]

Multifunctional Flexible Display with Acoustic Emission Enabled by Ferroelectric Polymer Actuators

Jun Hyuk Shin, Ji Yoon Park, and Su Seok Choi (POSTECH, Korea)

[P2-018]

Heat and Moisture Deformation Analysis of Flexible Display

Jigeun Nam, Seunghee Lee, and Hyosung Lee (LG Display Co., Ltd., Korea)

[P2-019]

High Performance Stretchable Silver Electrodes with Double-Layer Structure for Mini LED Application

Ayeong Jo, Jinyeong Lee, and Jaewook Jeong (Chungbuk Nat'l Univ., Korea)

[P2-020]

A Distributed Network System for Real-Time AI Pupil Tracking

Muhsin Alper Asar (KIST & Univ. of Science and Tech., Korea), Ki Hyuk Yoon (KIST, Korea), and Sung Kyu Kim (KIST & Univ. of Science and Tech., Korea)

[P2-021]

High-Resolution Hogel Image Parallel Processing Method

Hyunmin Kang and Sungsoo Woo (GERI, Korea)

[P2-022]

3D Reconstruction of Cultural Heritage Using Inpainting Techniques

Hyunmin Kang and Sungsoo Woo (GERI, Korea)

[P2-023]

Object Light Conversion Algorithm for Various Display Devices of Electro-Holography using Backpropagation Calculation

Asuka Umenai, Akifumi Kashiwagi, Seok Kang, and Yuji Sakamoto (Hokkaido Univ., Japan)

[P2-024]

Implementation of Holographic Video Game in High-Speed Generation System with Physical Simulation and GPU Cluster

Taketo MIYAHARA, Yuji SAKAMOTO, and Seok KANG (Hokkaido Univ., Japan)

[P2-025]

Enlargement of Reconstructed Image and Full-Colorization in Holographic Display with Wide Viewing-Zone

Taisei Ogawa, Seok Kang, Takashi Hikage, Manabu Yamamoto, and Yuji Sakamoto (Hokkaido Univ., Japan)

[P2-026]

Inverse Design of Achromatic Metasurface Coupler by Adjoint Optimization

Seungho Choi, Taeho Seo, Jonghyun Ka, and Wooksung Kim (POSTECH, Korea)

[P2-027]

A Full-Color 3D Holography Using μ -Display for Extended Reality Applications

Brian Chao (Stanford Univ., USA), Jiwon Jung (Stanford Univ., USA & Samsung Display Co., Ltd., Korea), Gun-Yeal Lee, Suyeon Choi, Manu Gopakumar, and Gordon Wetzstein (Stanford Univ., USA)

[P2-028]

Volumetric Display Using Clouds Formed by Femtosecond Laser-Induced Condensation

Kota Kumagai, Keisuke Numazawa, and Yoshio Hayasaki (Utsunomiya Univ., Japan)

[P2-029]

Light Field-Based Cultural Heritage Restoration and Visualization

Choi Jae Gwan (GERI, Korea)

[P2-030]

Image Production for Volumetric Displays Using 3D Gaussian Splatting

Togo Endo, Kota Kumagai, and Yoshio Hayasaki (Utsunomiya Univ., Japan)

[P2-031]

3D Instant Photography with Integral Photography

Hyo-Jun Kwon, Seong-jun Jo, and Hong-Seok Lee (Pukyung Nat'l Univ., Korea)

[P2-032]

Stable Fabrication Technique for One-Layer Color Holographic Optical Elements

Reo Murafuji, Sho Uegaki (Tokyo Univ. of Agriculture and Tech., Japan), Yoshiharu Momonoi (Samsung R&D Inst. Japan, Japan), and Yasuhiro Takaki (Tokyo Univ. of Agriculture and Tech., Japan)

[P2-033]

Ultra-Thin Laser Backlight for Holographic Contact Lens Display

Fuma Hirata, Yuto Hayashi, and Yasuhiro Takaki (Tokyo Univ. of Agriculture and Tech., Japan)

[P2-034]

Light Field Selective Masking for Occlusion Capable See-through Augmented Reality

Seongju Lee, Minwoo Jung, Hyeonbin Im, and Joonku Hahn (Kyungpook Nat'l Univ., Korea)

[P2-035]

Generating Holographic Stereogram for Motional Image by Changing Illumination Angle

Sanghyuk Park, Seonuk Yang, Hyeonbin Im, and Joonku Hahn (Kyungpook Nat'l Univ., Korea)

[P2-036]

A Method for Enhancing the Depth Perception of Light-Field-Based 3D Displays

Choi Jae Gwan (GERI, Korea)

[P2-037]

Optical Uniformity Improvement of Diffractive Waveguide Display based on Gradient Descent Method

Sehwan Na, Shin-Woong Park, and Hwi Kim (Korea Univ., Korea)

[P2-038]

Design of Nano-Structured Meta-Surfaces for Color Beam Steering in Augmented Reality Glasses

Hong Bi Joo and Hyoung Won Baac (Sungkyunkwan Univ., Korea)

[P2-039]

Hybrid 3D-Integrated CuI RRAM and Si/SWNT Complementary Circuits for Energy-Efficient Memory-Logic Interfaces in AR/VR Applications.

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

[P2-040]

Influence on Multiple Arc 3D Images by Use of Retro-Reflector Behind Arc 3D Substrate Illuminated by Multiple Lights

China Terauchi, Kensuke Tamano, Shiro Suyama, and Hirotsugu Yamamoto (Utsunomiya Univ., Japan)

[P2-041]

Both-Sided Aquatic Display Using Two Aerial Imaging by Retro-Reflection

Aoba Makishima, Ryosuke Ichikawa, Kazuaki Takiyama, Takehide Ikeda, Shiro Suyama, and Hirotsugu Yamamoto (Utsunomiya Univ., Japan)

[P2-042]

Suppression of Double Images in AIRR by Use of With Motheye Film on Thick Beam-Splitter and Its Impact on Aerial Image Brightness

Akito Fukuda, Ryota Yamada, Shiro Suyama, and Hirotugu Yamamoto (Utsunomiya Univ., Japan)

[P2-043]

Off-Axis Varifocal AR-NED Using Focus Tunable Lens for Visual Comfort

Do-Hun Baek, Seong-Hyeon Cho, Woo June Choi, and Young-Wan Choi (Chung-Ang Univ., Korea)

[P2-044]

Field-of-View Steerable Waveguide-Type Near-Eye Display for Augmented Reality

Gyu-Chan Han, Myeong-Ho Choi (Seoul Nat'l Univ., Korea), Kanghee Won (Kyung Hee Univ., Korea), and Jae-Hyeung Park (Seoul Nat'l Univ., Korea)

[P2-045]

Eye-Box Expansion in Holographic Near-Eye Display Using a Voltage Controlled Liquid Crystal Beam Deflector

Erdenebayar Bayarsaikhan, Erkhembatar Dashdavaa, Munkh-Uchral Erdenebat, Jin-Hyeok Seo, Min-Seok Kim (Kyungpook Nat'l Univ., Korea), Jun Do, Kanghee Won (Kyung Hee Univ., Korea), and Hak-Rin Kim (Kyungpook Nat'l Univ., Korea)

[P2-046]

Depth Measurement Technique Using Multi-Wavelength Digital Holography and Accuracy Analysis Due to Phase Fluctuation

Kang Pilsung (GERI, Korea)

[P2-047]

High-Resolution Micro-OLED Fabrication with Plane Source Evaporation

Young Jun Lee, Byung Doo Chin (Dankook Univ., Korea), and Changhun Hwang (OLEDON, Korea)

[P2-048]

Distortion Correction Method for Digital Face Painting Using Flat Aerial Images on Curved Facial Surface

Yuka Sato, Ryota Yamada, Shiro Suyama, and Hirotsugu Yamamoto (Utsunomiya Univ., Japan)

[P2-049]

Design of Transmission System for CGH Video on Beyond 5G Networks

Kazuhiro Yamaguchi (Suwa Univ. of Science, Japan)

[P2-050]

Mirage II: Floating Real Image Display Using Hemispherical Reflection Screen Made of Gelatin Film Which Enables to Make Images Invisible from Back Side

Kunio Sakamoto and Yuuki Tsuwa (Konan Univ., Japan)

[P2-051]

Data-Driven Hardness Optimization of AlSiN SiO₂ Films Using Regression Models and Weighted-PCA

Kyongtae Park and JongSuk Joo (Samsung Display Co., Ltd., Korea)

[P2-052]

Evaluating Printability of Weakly Viscoelastic Ink Using Deborah Number

Jules Mathieu Richardot, Seongju Kim, and Sungjune Jung (POSTECH, Korea)

[P2-054]

A Machine Learning-Based Approach to Adaptive Control Chart

Junhyuk Choi (Samsung Display Co., Ltd., Korea)

[P2-055]

Amorphous-InGaZnO Electron Transport Properties Depending on Hot Implantation Temperature

Yuya Yamane, Keisuke Yasuta, Toshimasa Ui, Koichi Orihira, Shojiro Dohi, and Junichi Tatemichi (Nissin Ion Equipment Co., Ltd., Japan)

[P2-056]

Intelligent Design Method for Nano-Devices Using Artificial Neural Networks: Optical Properties

Jun Hee Han and Kyu-Sung Lee (ETRI, Korea)

[P2-057]

Enhanced Dielectric Properties of SiO₂ Thin Film by NO Plasma Treatment

Yunhui Jang, Yeojin Jeong, Suji Choi, Ire Oh, and Junsin Yi (Sungkyunkwan Univ., Korea)

[P2-058]

Motion Control Method for Line-Arc-Line Dispensing

Juhwa Lee and Minjae Lee (Samsung Display Co., Ltd., Korea)

[P2-059]

Role of Bonding in Amorphous-InGaZnO Resistance Control Techniques by Ion Implantation

Keisuke Yasuta, Yuya Yamane, Toshimasa Ui, Koichi Orihira, Shojiro Dohi, and Junichi Tatemichi (Nissin Ion Equipment Co., Ltd., Japan)

[P2-060]

Quantification Method for Flicker of a Moving Object in Local Dimming Displays

Hyungsuk Hwang, Hyosun Kim, Dongyeol Yeom, Yongwoo Yi, and JaeJoong Kwon (Samsung Display Co., Ltd., Korea)

[P2-061]

Swin Transformer Unet-Based Holography Artifact Reduction for Display Inspection Using Wave-Optics Simulator

Sanghoon Cho, Hyunsuk Kim (Samsung Display Co., Ltd., Korea), Saeid Kheiryzadehkhaghah (Jeonbuk Nat'l Univ., Korea), Seajin Kim, Yeongchang Lee (Samsung Display Co., Ltd., Korea), Gukhyeon Hwang, Daesuk Kim (Jeonbuk Nat'l Univ., Korea), ChoongHoon Roh, and Sangrak Son (Samsung Display Co., Ltd., Korea)

[P2-062]

Enhancing α -IGZO TFT Thermal Reliability through Hydrogen Diffusion Control Using Isotopic Engineering

Seungwoo Chu, Jihun Kang, and Junsin Yi (Sungkyunkwan Univ., Korea)

[P2-063]

Virtual Image Generation for Glass-less Critical Dimension Measurement Recipe Setup

Minkyu Yeo, Hyungkeun Park, Juri Nam, Byungsu Oh, Hyunjoon Kim, and Cris Seungin Baek (Samsung Display Co., Ltd., Korea)

[P2-064]

Denting Simulation of Surface Waviness for Polarizer-Free Display

Daeho Kim and Kyoung Ho Park (Samsung Display Co., Ltd., Korea)

[P2-065]

Enhanced Silicon Oxide Thin Films Using Plasma-Enhanced Atomic Layer Deposition for High Performance Oxide Thin-Film Transistor

Heeyong Lee, Kyungju Min, Saehong Kim, Woojin Kim, Junggon Kim, Choelmin Jang, Youjong Lee, and Myungsoo Huh (Samsung Display Co., Ltd., Korea)

[P2-066]

High-Resolution, Low-Cost LCD 3D Printing for Rapid Prototyping of Micro Patterned Transparent Conducting Materials

Nguyen-Hung Tran and Ji-Hoon Lee (Jeonbuk Nat'l Univ., Korea)

[P2-067]

Semiconductor Type Modulation of SnO_x for Fabricating n-Type and p-Type TFTs

Minhyeong Son, Zhong Pan, Ire Oh, Muhammad Quddamah Khokhar, and Junsin Yi (Sungkyunkwan Univ., Korea)

[P2-068]

Development of a Real-Time Digital Macro Image Generation and Inspection System based on Inkjet Printing Process AOI

Hyunduck Kim, Kyunggil Baek, Jeongmin Oh, and Donggon Yoo (Samsung Display Co., Ltd., Korea)

[P2-069]

Modeling Photolithography Process Control and Sampling Optimization Using Offline Reinforcement Learning

Eungjin Kim (Samsung Display Co., Ltd., Korea), Kaushik Balakrishnan, Kasra Yazdani (Samsung Electronics Co., Ltd., USA), and Jaewon Kim (Samsung Display Co., Ltd., Korea)

[P2-070]

Development of a New Carbon Black Inkjet Printing Method for Large-Scale and Thin Glass Substrate

Lae Ho Kim, Ho Seung Jung, Jeong Hun Kim, Sung Min Park, Jaihyuk Choi, and Myung Soo Huh (Samsung Display Co., Ltd., Korea)

[P2-071]

Fabrication of Full-Swing Oxide NMOS Inverter Using Ultra Low Thermal Budget Flash Lamp Annealing

Yun Hyeok Jeong, Won Woo Lee, Dong Hyun Lee, Joo Hyun Jeong, Sung Jin Park, Ko Eun Ham, Seung Min Lee, Hyuk Ju Ahn, Sang Jik Kwon, Min Kyu Park, and Eou-Sik Cho (Gachon Univ., Korea)

[P2-072]

Advanced IGZO TFTs: Electrical Characteristics Enhanced by Metal Capping and Xenon Flash Lamp Treatment

Sung Jin Park, Won woo Lee, Yun Hyeok Jeong , Joo Hyun Jeong, Ko Eun Ham, Seung Min Lee, Geon Woo Choi, Sang Jik Kwon, and Eou-Sik Cho (Gachon Univ., Korea)

[P2-073]

Study on the Growth and Electrical Properties of High-K ZrO_x Thin Films via ALD

Saehong Kim, Kyungju Min, Woojin Kim, Heeyong Lee, Junggon Kim, Choelmin Jang, Youjong Lee, and Myungsoo Huh (Samsung Display Co., Ltd., Korea)

[P2-074]

Effect of Driving Waveform on Velocity and Volume of Low-Viscosity Ink Droplets

Yu Konta, Wonjoon Choi, Yeongjun Kim, Cheongwan Min, JeongHo Yi, and Myung Soo Huh (Samsung Display Co., Ltd., Korea)

[P2-075]

Plasma Formation and Process Optimization in Laser-Material Interaction for Display Manufacturing

Mingyu Jeon, Meenkyo Seo, Seyeon Hwang, Kisang Lee, Juil Hwang, Hyungsik Kim, Myung Soo Huh, and Cheol Lae Roh (Samsung Display Co., Ltd., Korea)

[P2-076]

Sub-Micro Defect Inspection Method for Backplane Glass Using Dark Field Lighting in 2D AOI System

Sekwang Han, Hyeongmin Ahn, Joongeol Kim, Hun So, and Donggon Yoo (Samsung Display Co., Ltd., Korea)

[P2-077]

Selective Annealing-Based Electrical Characteristics Changes in NMOS Inverter Logic Circuit Fabrication: DUV fs Laser Annealing

Joo Hyun Jeong, Won Woo Lee, Yun hyeok Jeong, Sung Jin Park, Ko Eun Ham, Gang Guk Park, Jung Eun Joo, Sang Jik Kwon, and Eou-Sik Cho (Gachon Univ., Korea)

[P2-078]

Green PECVD Process for High-Quality SiO₂ Films Using NO Gas as a Precursor

Jihun Kang, Seungmin Lee, Yunhui Jang, Yeojin Jeong, Duy Phong Pham, and Junsin Yi (Sungkyunkwan Univ., Korea)

[P2-079]

Analyzing Parasitic Excitons via Operando Electrically Pumped Spectroscopy in Blue Phosphorescent Organic Light-Emitting Diodes

Chang Min Lee, Hyun Jae Lee, Insung Ha, Mengdu Fu (Dongguk Univ., Korea), Chul Hoon Kim (Korea Univ., Korea), and Seung Yoon Ryu (Dongguk Univ., Korea)

[P2-080]

Numerical Simulation of the Laser Cutting Process for Polyimide Films in Flexible Display Applications

Yoonsuk Kim, Yoon Yeol Lee, ByungHoon Kim, Hyun Sung Park, Jangwoo Kim, and Seung-in Baek (Samsung Display Co., Ltd., Korea)

[P2-081]

Non-Destructive Auto Metrology Solution for Display Edge Shape Using 3D Confocal Sensor

Yonghee Park, Youngil Jung, Jaewoo Jung, and Donggon Yoo (Samsung Display Co., Ltd., Korea)

[P2-082]

Comparison of ZnON TFT Characteristics with Various Organic Passivations and Their Enhanced Lifespans

Ko Eun Ham, Won Woo Lee, Yun hyeok Jeong, Joo Hyun Jeong, Sung Jin Park, Dong hyeon Kim, Yeo jin Kim, Young Woo Kim, Ye Ji Shin, Kyung Sik Go (Gachon Univ., Korea), Yongmin Jeon (Kyung Hee Univ., Korea), Sang Jik Kwon (Gachon Univ., Korea), and Eou Sik Cho (Gachon Univ., Korea)

[P2-083]

Nitrogen Doping of SiO₂ by N₂O Plasma for Stability and Reliability Enhancement in IGZO Thin Film Transistors

Seong-A Shin, Tae-Heon Kim, and Jin-Seong Park (Hanyang Univ., Korea)

[P2-084]

Fabrication of Protective Film on the Surface of Hybrid OLED Panel with Inkjet Printing

Chan Young Park, Dongil Park, Yuseon Jeong, Heungjun Park, Insik Lim, and Jonghoon Kim (HB Solution Co., Ltd., Korea)

[P2-085]

Method for Evaluating the Differences between Static and Moving Image

Hyunah Suh, Dongyeol Yeom, Hyosun Kim, Yongwoo Yi, Jaejoong Kwon, and Jiyoung Park (Samsung Display Co., Ltd., Korea)

[P2-086]

Enhanced Hole Drilling Efficiency by Laser Burst Mode Operation

Gyohyeon Hwang, Bohyeon Hwang, Kyunghan Yoo, Woohyun Jung, Seyeon Hwang, Meenkyo Seo, Seongjin Yeon, Hyungsik Kim, Myungsoo Huh, and Cheollae Roh (Samsung Display Co., Ltd., Korea)

[P2-087]

Development of Inkjet Printer for High Resolution QD-OLED Display

Cheongwan Min, Yu Konta, Hyunkyu Ahn, Hyeonseon Jeong, Tomoeda Satoshi, and Myungsoo Huh (Samsung Display Co., Ltd., Korea)

[P2-088]

The Method for Evaluating Multi-axial Strain Elongation of Stretchable Display

Aree Song, Ha young Lee, Dong yeol Yeom, Yong woo Yi, Ji won Lee, Jin woo Choi, and Jae joong Kwon (Samsung Display Co., Ltd., Korea)

[P2-089]

Flip-Molding Method for Frameless Display based on Mono-Substrate

Donghyun Lee, Yeonwoong Kang, Minsang Koo, Junyoung Lee, Jaehak Lee, and Sijoon Song (Samsung Display Co., Ltd., Korea)

[P2-090]

Low-Temperature, Low-Pressure Anisotropic Conductive Film with Low-Melting-Point Metal Alloy for Next-Generation Displays

Yejin Ahn, Simok Lee (KAIST, Korea), Donghyun Lee, Sijoon Song, Yudeok Seo (Samsung Display Co., Ltd., Korea), and Jae-Woong Jeong (KAIST, Korea)

[P2-091]

355 nm Fiber Laser Treatment on Amorphous In-Ga-O Thin Film Transistor

Ji-Won Park, Ja-Hyeok Cho, and Myung-Gil Kim (Sungkyunkwan Univ., Korea)

[P2-092]

Effect of Gate-Defined Channel Length on Vertical Structure TFTs

Sang Hun Hwang, Byung Seol Hwang, Sang Ho Hwang (Hoseo Univ., Korea), Seung Jae Moon (UNIST, Korea), and Byung Seong Bae (Hoseo Univ., Korea)

[P2-093]

OLED Luminance Compensation Method according to Temperature

Yonggu Kim (Samsung Display Co., Ltd., Korea)

[P2-094]

New Colorimeter for Precise Position of Under Display Camera

Hyun Ho Lee, Jin Oh Han, Ki Beom Na, Woo Hee Kim, Seok Min Woo, Sung Hyuk Yoon, Hee Soo Moon, Chang Hun Lim, Kyu Seok Kim, and Kyu Ho Lee (ANI Co., Ltd., Korea)

[P2-095]

Reduction of Internal Reflection in Rigid Top-Emission OLED Panels for Film Color Filter Applications

Horyun Chung, Eunjae Na, Sejoong Shin, Sehyung Cho, Myunghwan Kim, and Sungguk An (Samsung Display Co., Ltd., Korea)

[P2-096]

Enhancement of Interfacial Metal Oxide Layer for Vertical TFTs

Byung Seol Hwang, Sang Hun Hwang, Sang Ho Hwang (Hoseo Univ., Korea), Seung Jae Moon (UNIST), and Byung Seong Bae (Hoseo Univ., Korea)

[P2-097]

A Study on Uniform Adhesion Method of Curved Display

Taeyoung Park, Byungmoo Kim, Myunghun Oh, Jaeheung Cho, and Dongho Park (Samsung Display Co., Ltd., Korea)

[P2-098]

A Study on the Image Synthesis Methods according to the Lens Iris Size

Jaseong Koo (Samsung Display Co., Ltd., Korea)

[P2-099]

Accident Prevention through Pre-Inspection of Production Standards System

Seunghee Lee, HyeSeon Jeong, Jongwon Lee, Himchan Jeong, BeomJun Lee, ByoungHo Lee, Hojin Kim, and Mingyu Kang (Samsung Display Co., Ltd., Korea)

[P2-100]

Optimization of Atomic Layer Deposition-Based Low-Temperature $\text{Al}_2\text{O}_3/\text{TiO}_2$ Nanolaminates Using Tensile Testing on Water

Hyeoncheol Bang and Jeong Hyun Kwon (Chungbuk Nat'l Univ., Korea)

[P2-101]

Environmental Stability of Atomic Layer Deposition-Based $\text{Al}_2\text{O}_3/\text{SiO}_2$ Nanolaminate Films under Harsh Conditions

Myeongheon Lee and Jeong Hyun Kwon (Chungbuk Nat'l Univ., Korea)

[P2-102]

Environmental Stability of Functional Polymer Based Multibarrier Encapsulation for Wearable Displays

Hyeonjun Lee and Jeong Hyun Kwon (Chungbuk Nat'l Univ., Korea)

[P2-103]

Mechanical Behavior Analysis of Various Organic/Inorganic Multilayer Structures Using Tensile Testing on Water

Hyun Yang and Jeong Hyun Kwon (Chungbuk Nat'l Univ., Korea)

[P2-104]

Biocompatible Encapsulation Barrier Using Parylene-C for Bio-Organic Light-Emitting Diode Patch

Saewoong Jeon and Jeong Hyun Kwon (Chungbuk Nat'l Univ., Korea)

[P2-105]

Low Voltage IGZO TFT Developed Using Ta Interfacial Oxidation

Seung Jun Choi, Jung Hyon Jeon, Jung Soo Kim (Hoseo Univ., Korea), Seung Jae Moon (UNIST, Korea), and Byung Seong Bae (Hoseo Univ., Korea)

[P2-106]

Stretchable PCB Structures and Fabrication Processes for Flexible Electronics

Dong-Wook Lee, Hyun-Soo Park, and Honyeon Lee (Soonchunhyang Univ., Korea)

[P2-107]

Internal Flow Control of Ternary Solvent System for Uniform Emissive Layer Formation via Vacuum Drying in Inkjet-Printed OLED Displays

Youngwook Noh, Sang Youn Lee, Jonghyun Choi, and Kwan Hyun Cho (KITECH, Korea)

[P2-108]

Wavelength-Deviation-Based Automated Optical Inspection (AOI) for Defect Classification and Visualization in Micro-LED Chips

Youngjin Oh, Hong Joo Song, Kyoungwon Park, and Sangwoong Baek (KETI, Korea)

[P2-109]

Assessment of Dielectric Suitability through C-V Measurement

Jeong Su Kim, Seung Jun Choi (Hoseo Univ., Korea), Seung Jae Moon (UNIST, Korea), and Byung Seong (Hoseo Univ., Korea)

[P2-110]

Al-Doped SiC-ON Thin Films with Enhanced Optical and Mechanical Properties for Cover Windows of Mobile Displays

Hyeon Seok Lee, Jong-Hyeon Jang, Ju-Yong Kim, Ye-Jin Shim, Yeoung-Eun Seo, and Han-Ki Kim (Sungkyunkwan Univ., Korea)

[P2-111]

Analysis of Changes in Mechanical Properties of Films by Repeated Folding Test for Flexible Display

Hyo Jin Bang, Sangwoong Baek, and Chan-Jae Lee (KETI, Korea)

[P2-112]

Electrohydrodynamic Ink Jetting Behavior of High-Viscosity Fluids under Various Printing Parameters

Seonmin Lee, Yoon-Jeong Choi, and Byung Doo Chin (Dankook Univ., Korea)

[P2-113]

Imaging Colorimeter with Double-Sided Telecentric Lens for Micro-Display Measurement

Hyun Seock Oh, Chang Hun Lim, Seung Jin Lee, Hyunjong Lee, Jun Seop Kim, Ji Heon Choi, Kyu Seok Kim, and Kyu Ho Lee (ANI Co., Ltd., Korea)

[P2-114]

Image Analysis Method for Inkjet Printing Uniformity and Defect Detection for Quantum Dot Light Emitting Diodes

Na Min Kim, Yoon-Jeong Choi, and Byung Doo Chin (Dankook Univ., Korea)

[P2-115]

Hydrogen Barrier Enhancement for Indium-Gallium-Zinc-Oxide Thin-Film Transistors Using ALD-Deposited $\text{Al}_2\text{O}_3/\text{AlF}_3$ Nanolaminates

Changyun Na, Changjun Noh, Sungkyu Jang, Hoyean Yoon, and Sung Min Cho (Sungkyunkwan Univ., Korea)

[P2-116]

Cellulose and Polyphenon 60 based Light Extraction Template for Enhanced Organic Light-Emitting Diode Efficiency

Hyunjun Jang (Hanbat Nat'l Univ., Korea), Jooho Lee (Hanbat Nat'l Univ. & ETRI, Korea), Sora Han, Baeksang Sung (Hanbat Nat'l Univ., Korea), Chul Woong Joo (ETRI, Korea), Hyerin Kang, Seoyeon Kim, Jae Hyun Lee, and Jonghee Lee (Hanbat Nat'l Univ., Korea)

[P2-117]

Quantitative Evaluation of the Degradation of Solution-Processed Blue Organic Light-Emitting Diodes

Beomsoo Chun, Ganghyun Park (Seoul Nat'l Univ., Korea), June Hyuk Lee (Korea Atomic Energy Research Inst., Korea), and Jeonghun Kwak (Seoul Nat'l Univ., Korea)

[P2-118]

Bio-Degradable PBAT-Based Light Extraction Films for Enhanced Organic Light-Emitting Diodes Performance

Hyerin Kang, Hyunjun Jang, Sora Han, Baeksang Sung, Seoyeon Kim, Sohee Jang, Jae-Hyun Lee (Hanbat Nat'l Univ., Korea), Jeyoung Park (Sogang Univ., Korea), and Jonghee Lee (Hanbat Nat'l Univ., Korea)

[P2-119]

Phase Separated P(VDF-TrFE)/PMMA Blended Molds for Enhanced Light Extraction in OLEDs

Sohee Jang, Baeksang Sung, Jaehyuk Cho, Hyunjun Jang, Hyerin Kang, Seoyeon Kim, Jaehyun Lee, Minhoi Kim, and Jonghee Lee (Hanbat Nat'l Univ., Korea)

[P2-120]

Tandem Organic Light Emitting Diode Using LiF-Al Bilayers for Enhanced Charge Generation

Minsu Kim, Hyo-Bin Kim, and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[P2-121]

Comparison of Charge Generation Layer Metal Assisting Interlayer Using Ca, Yb, Mg and Ag for Tandem Organic Light-Emitting Diodes

So-Jeong Lim, Sung-Cheon Kang, Hyo-Bin Kim, and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[P2-122]

Enhancing Polymer Light-Emitting Diodes Performance by ZnMgO Electron Transport Layer: Reduced Defects and Improved Efficiency

Seongmin Oh, Hyo-Bin Kim, and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[P2-123]

Structural Optimization of N-Type Charge Generation Layer for Efficient Tandem Organic Light Emitting Diode

Yo-Han Suh, Geunhyuck Ji, Il-Gu Kim, Ho-Chang Yang, and Seung Hyun Lee (KETI, Korea)

[P2-124]

High-Efficiency Photovoltaic Red Tandem Organic Light-Emitting Diodes via Exciplex Host

Hyunsoo Park and Byoungdeog Choi (Sungkyunkwan Univ., Korea)

[P2-125]

Boosting OLED Efficiency Through Electron Injection Layer (EIL) Engineering: Synergistic Effects of Organic Hosts and Metal Dopants

Yoonseok Ka, Jungho Choi, and Dong-Chan Kim (Samsung Display Co., Ltd., Korea)

[P2-126]

Study on the Suppression of Driving Voltage Increase in Blue Tandem Organic Light-Emitting Diodes through Charge Generation Layer Structure Modification

You Na Song (Hongik Univ., Korea) and Taekyung Kim (Kyung Hee Univ., Korea)

[P2-127]

Quantitative Analysis of Exciton Dynamics in Efficiency Enhancement Layers for Blue Fluorescent Organic Light-Emitting Diodes

Bum June Park (Hongik Univ., Korea) and Taekyung Kim (Kyung Hee Univ., Korea)

[P2-128]

Suppressing Efficiency Variation Across Gray Levels by Controlling Charge Dynamics

Yeonju Jeong (Hongik Univ., Korea) and Taekyung Kim (Kyung Hee Univ., Korea)

[P2-129]

Stability Enhancement in OLEDs via Pyrene-Core HLCT-Mediated Exciton Management

Yi Sak Lee (Hongik Univ., Korea), Won-Sik Han (Seoul Women's Univ., Korea), and Taekyung Kim (Kyung Hee Univ., Korea)

[P2-130]

Unraveling the Effects of MR-Emitter Structure and Sensitizer Concentration on Device Performance in Phosphor-Sensitized TADF OLEDs

Jihun Hwang (Hongik Univ., Korea), Dong gun Lee, Seung soo Yoon (Sungkyunkwan Univ., Korea), and Taekyung Kim (Kyung Hee Univ., Korea)

[P2-131]

Automation System for Solution-Processed OLED Manufacturing: Enhancing Consistency and Accuracy

Seungchan Ham and Jeong-Hwan Lee (Inha Univ., Korea)

[P2-132]

Precision Patterning of Organic Light Emitting Diode Pixels Using Photolithography for High-Resolution Displays

Hanbeen Lee, Jin-Kyun Lee, and Jeong-Hwan Lee (Inha Univ., Korea)

[P2-133]

Synergistic Alignment of Pt-Based Phosphors and Multi-Resonance Emitters for High-Performance Phosphor-Sensitized Fluorescent Organic Light-Emitting Diodes

Da-eun Lee, Seung-Hyun Baek (Inha Univ., Korea), Yun-Hi Kim (Gyeongsang Nat'l Univ., Korea), and Jeong-Hwan Lee (Inha Univ., Korea)

[P2-134]

Maintaining Local Excited State and Enhancing Efficiency in Organic Light-Emitting Diodes with Ortho-Carborane Modified Multi-Resonance Thermally Activated Delayed Fluorescence Emitters

Jee-Hun Jang (Inha Univ., Korea), Min-Hyung Lee (Univ. of Ulsan, Korea), and Jeong-Hwan Lee (Inha Univ., Korea)

[P2-135]

Insights into Organic Light-Emitting Diodes Charge Dynamics via Transient Electroluminescence Analysis

Al Amin and Jeong-Hwan Lee (Inha Univ., Korea)

[P2-136]

High-Dipole Moment Electron Injection Layer for Enhanced Efficiency in Organic Light-Emitting Diodes

Amarja Katware and Jeong-Hwan Lee (Inha Univ., Korea)

[P2-137]

Exciplex Engineering with Carbazole-Based Hosts for High-Performance Red Phosphorescent OLEDs

Cai-Fan Lo, Chia-Hsu Ku, Zih-Ru He, Fong-Yu Yang, Chih-Hao Chang (Yuan Ze Univ., Taiwan), Raminta Beresneviute, Dovydas Blazevicius, Eigirdas Skuodis, and Saulius Grigalevicius (Kaunas Univ. of Tech., Lithuania)

[P2-138]

Alkylated Benzo[a]carbazole Hosts for High-Efficiency and Stable Red Phosphorescent OLEDs

Chia-Hsu Ku, Cai-Fan Lo, Chi-Hao Huang, Yu-Hsuan Chen, Chih-Hao Chang (Yuan Ze Univ., Taiwan), Daiva Tavgeniene, Dovydas Blazevicius, Eigirdas Skuodis, and Saulius Grigalevicius (Kaunas Univ. of Tech., Lithuania)

[P2-139]

Analysis of the Efficiency Performance of Different Hyperlayer Triplet-Triplet Fusion OLEDs:

Wei-Zhi Chen, Chia-Hsun Chen, Hung-Yi Lin, Lian-Chun Huang, Yuan-Zhen Zhuang, Jiun-Haw Lee (Nat'l Taiwan Univ., Taiwan), Tien-Lung Chiu (Yuan Ze Univ., Taiwan), and Yuh-Renn Wu (Nat'l Taiwan Univ., Taiwan)

[P2-140]

Analysis of Exciton Diffusion and Energy Transfer Mechanisms in Host-Guest Systems OLED Device with 1D Simulation

Liang-Yu Chen, Min-Hsuan Chang (Nat'l Taiwan Univ., Taiwan), Hwan-Hee Cho (Yonsei Univ., Korea), and Yuh-Renn Wu (Nat'l Taiwan Univ., Taiwan)

[P2-141]

2D Simulation of Carrier Transport and Exciton Dynamics in Doped OLEDs with Randomized Guest Distribution

Min-Hsuan Chang, Liang-Yu Chen (Nat'l Taiwan Univ., Taiwan), Hwan-Hee Cho (Yonsei Univ., Korea), and Yuh-Renn Wu (Nat'l Taiwan Univ., Taiwan)

[P2-142]

Impact of Substrate Temperature on the Electrical Performance of n-Type Charge Generation Layers

A-Yeon Kim, Gyu Min Lee, Chang-Hee Lee, and Gi-Dong Lee (Dong-A Univ., Korea)

[P2-143]

A Study on the Optimization of OLED Pixel Define Layer based on SiO₂ Complex Compound and Color Uniformity Improvement

Ji-hoon Park, Do-Young Jeong, and Kwan-young Han (Dankook Univ., Korea)

[P2-144]

Molecular Design of Nido-Ortho-Carborane Functionalized Pt(II) Complexes for Deep-Blue OLED Applications

Yeeun An, Mingi Kim, and Kang Mun Lee (Kangwon Nat'l Univ., Korea)

[P2-145]

Molecular Engineering of Tetradentate Platinum(II) Complex for Efficient Blue Phosphorescent Organic Light-Emitting Diodes

Hyeji Park, Gayeon Yeom, and Kang Mun Lee (Kangwon Nat'l Univ., Korea)

[P2-146]

Samarium Charge Generation Interlayer for Improved Charge Injection in Tandem OLEDs

Jincheol Jang, Hyo-Bin Kim, Jae-In Yoo, and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[P2-147]

Terahertz Spectroscopy-Driven Insights into Transparent & Stretchable OLEDs with Enhanced Stability

Chang Min Lee, Insung Ha, Mengdi Fu, Hyun Jae Lee, and Seung Yoon Ryu (Dongguk Univ., Korea)

[P2-148]

Atomic Layer Infiltration of ZnO on Polyimide Substrates for Flexible Encapsulation Hybrid Film

Ji Ho Jeon, Si Eun Jung, Su Min Eun, Ye Jin Jung (Seoul Nat'l Univ. of Science and Tech., Korea), Kwanhyuck Yoon, Woo Yong Sung (Samsung Display Co., Ltd., Korea), Byung Joon Choi, and Jeong Hwan Han (Seoul Nat'l Univ. of Science and Tech., Korea)

[P2-149]

Effect of CVD-Deposited Top Layers on Hydrogen Concentration in IGZO Thin Films for Oxide TFTs

Moonsung Kim, Jaebum Han, and Giyoung Yeon (Samsung Display Co., Ltd., Korea)

[P2-150]

A Study on the Characteristics of Outgas and Panel Devices for PE-CVD Insulation Films

Yunji Park, Hyosung Kim, Jaebum Han, Kiyoung Yeon, and Nari Ahn (Samsung Display Co., Ltd., Korea)

[P2-151]

Efficient Design of MR-TADF Emitters Utilizing Asymmetric Structures and Bulky Groups for OLED Applications

Da Yeon Shin, Bong Gyun Jang, Yeong Jun Lee, Jeong Yeol Yoo, and Chil Won Lee (Dankook Univ., Korea)

[P2-152]

Synthesis and Evaluation of Adamantane-Substituted N-Type Host Materials for Blue Phosphorescent OLEDs

Hye Rim Lee, Yeong Jun Lee, Jeong Yeol Yoo, and Chil Won Lee (Dankook Univ., Korea)

[P2-153]

Enhancing Thermal Stability and Reducing Intermolecular Interactions in Blue PhOLED Hosts via Adamantane Incorporation

Hyun Woo Kim, Da Gyum Huh, Yeong Jun Lee, Jeong Yeol Yoo, and Chil Won Lee (Dankook Univ., Korea)

[P2-154]

High Sensitivity LUMO Level Measurement of Organic Semiconductors Using Inverse Photoemission Spectroscopy with Enhanced Light Collection

Jong-Am Hong, Kyu-Myung Lee, Min-Jae Maeng, and Yongsup Park (Kyung Hee Univ., Korea)

[P2-155]

Novel Dibenzooxasiline-Introduced N-Type Host for Stable Blue Phosphorescent Organic Light-Emitting Diodes

Youngjun Hyun, Seungwon Han (Sungkyunkwan Univ., Korea), Dongchan Lee, Jinwon Sun, Changwoong Chu (Samsung Display Co., Ltd., Korea), and Jun Yeob Lee (Sungkyunkwan Univ., Korea)

[P2-156]

Rational Design of Pyrimidine-Functionalized Tetradentate Pt(II) Complexes for Enhancing Ligand-to-Ligand Charge Transfer Performance in Deep-Blue Organic Light-Emitting Diodes

Junhyeok Choi (Kangwon Nat'l Univ., Korea), Jangho Moon (Sungkyunkwan Univ., Korea), Chan Hee Ryu (Kangwon Nat'l Univ., Korea), Dongwook Kim (Inst. for Basic Science, Korea), Gyeong Woo Kim, Jun Yun Kim (LG Display Co., Ltd., Korea), Jun Yeob Lee (Sungkyunkwan Univ., Korea), and Kang Mun Lee (Kangwon Nat'l Univ., Korea)

[P2-157]

In-Situ Analysis of Exciton Dynamics During OLED Degradation

Edoardo Stanzani (Fluxim AG, Switzerland & Univ. of Valencia, Spain), V. Georgakopoulos-Paltidis (Fluxim AG, Switzerland & Univ. of Bayreuth, Germany), Sandra Jenatsch, Simon Zeder, Moon K. Heo, and Beat Ruhstaller (Fluxim AG, Switzerland)

[P2-158]

Connecting Analytical and Numerical Models of Luminance Degradation in Organic Light Emitting Diodes

V. Georgakopoulos-Paltidis (Fluxim AG, Switzerland & Univ. of Bayreuth, Germany), Edoardo Stanzani (Fluxim AG, Switzerland & Univ. of Valencia, Spain), Sandra Jenatsch, Balthasar Blülle, Moon K. Hao, and Beat Ruhstaller (Fluxim AG, Switzerland)

[P2-159]

The Study on the Light-Output Asymmetry Depending on the Position of the Emission Zone in Transparent OLEDs

Hyuckjin Nam (Chonnam Nat'l Univ., Korea), Hyunsu Cho (ETRI, Korea), and Changhun Yun (Chonnam Nat'l Univ., Korea)

[P2-160]

Cross-Linkable Electron Transport Layers for Highly Efficient in Solution-Processed OLEDs

Kitae Kang, Hyemi Hong (Kyung Hee Univ., Korea), Jihoon Lee (Korea Nat'l Univ. of Transportation, Korea), and Min Chul Suh (Kyung Hee Univ., Korea)

[P2-161]

Strategically Engineered Dibenzofuran-Based Hosts for High-Performance Green PHOLEDs

Nargis Ali, Aqsa Irfan (Kyung Hee Univ., Korea), Yun-Hi Kim (Gyeongsang Nat'l Univ., Korea), and Min Chul Suh (Kyung Hee Univ., Korea)

[P2-162]

Enhancing OLED Image Quality through APC-Based Optical Compensation

Hyuckwon Kwon, Seon Jeong, Yongchul Yoo, Dongwon Moon, and Wonju Shin (Samsung Display Co., Ltd., Korea)

[P2-163]

Implementation of Color-Tunable Polymer Tandem Organic Light-Emitting Diodes by Driving Voltage Polarity

Yunjae Shin, Ryungyu Lee, Changhee Lee, and Hojin Lee (Soongsil Univ., Korea)

[P2-164]

Characterization of Charge Transport in Interlayer-Based Charge Generation Layers Using Impedance Spectroscopy

Akeem Raji, Somi Park, So-Young Boo, Eun-Jeong Jang, Jaeyong Park, Woon-Ha Lee, Si-Eun Park, Seonghwan An, Jonghee Lee, and Jae-Hyun Lee (Hanbat Nat'l Univ., Korea)

[P2-165]

Research on Low Reflective Thin Films for Diffusion Barriers of OLED Display TFT Electrodes

Mac Kim and Hyeong-Jin Choi (KRICT, Korea)

[P2-166]

Inverted Organic Light-Emitting Diodes with Lithium-Doped ZnO Nanoparticles as an Electron Injection Layer

Chan-Jun Park, Su-Been Lee, Seo-Young Kim, So-Yeon Kim, Jeong-Won Park, and Dae-Gyu Moon (Soonchunhyang Univ., Korea)

[P2-167]

Analysis of Exciton-Polaron Quenching in Organic Light-Emitting Diodes based on Exciton and Polaron Distribution

Seonghwan An, Woonha Lee, Dong-Jun Kim, Si-Eun Park, Haewon Lee, Jonghee Lee, and Jae-Hyun Lee (Hanbat Nat'l Univ., Korea)

[P2-168]

Strategy for Achieving Long-Term Stability by Exciton Quenching Management in Blue Phosphorescent Organic Light Emitting Diodes

Seungwon Han (Sungkyunkwan Univ., Korea), Thilini Batagoda, Donghee Nam (Meta, USA), and Jun Yeob Lee (Sungkyunkwan Univ., Korea)

[P2-169]

9,9-Dimethylfluorene Structure-Induced Boron-Based MR-TADF Dopant Materials for High Color Purity and High Efficiency Deep Blue Emitters

Su Ah Park, Yeong Jun Lee, Jeong Yeol Yoo, and Chil Won Lee (Dankook Univ., Korea)

[P2-170]

Multiscale Modeling of OLED Devices: Connecting Atomistic and Molecular Findings with Device-Level Performance

B. Klumpers, T.P.M. Goumans, R. Rueger (Software for Chemistry and Materials, Netherlands),
R. Coehoorn, and P.A. Bobbert (Eindhoven Univ. of Tech., Netherlands)

[P2-171]

From Molecules to Micro-displays: Horizontal Dipole Orientation and Ligand Engineering for Deep-Blue PhOLED Breakthroughs

Siqi Li, Chengcheng Wu, Kaining Tong, Wei He, and Guodan Wei (Tsinghua Univ., China)

[P2-172]

Degradation Mechanisms of MR-TADF in Blue OLEDs: Impact of Charge Injection Dynamics Revealed by LDI-TOF MS

Min Gyu Jun, Jeong Won Seo, and Min Chul Suh (Kyung Hee Univ., Korea)

[P2-173]

Dipole Orientation Enhanced Novel Asymmetric Deep-Red Ir(III) Complexes for Stable and Efficient Electroluminescence

Kai-Ning Tong, Chengcheng Wu, and Guodan Wei (Tsinghua Univ., China)

[P2-174]

Towards High-Performance Display WOLEDs Using Non-Doped Strategies for High CRI, Enhanced Efficiency, and Communication Potential

Wei He, Kai-ning Tong, and Guodan Wei (Tsinghua Univ., China)

[P2-175]

Design of Thermally Cross-Linkable Hole-Transporting Materials for Solution Processed Organic Light-Emitting Diodes

Woosum Cho (KITECH, Korea), Hee Jeong Park (KITECH & Korea Univ., Korea), Youngyoong Kim, Sungkoo Lee, and Seunghwan Bae (KITECH, Korea)

[P2-176]

Investigating the Negative Polaron States of TADF Molecules via Charge-Induced Spectroscopy Analysis

Jin-Seon Heo, Tae-Ho Yang, Hye-Min Kim, Jonghee Lee, and Jae-Hyun Lee (Hanbat Nat'l Univ., Korea)

[P2-177]

A Study on the Optical Properties of Parylene-C Anti-Reflective Films with Column Diameter and Aspect Ratio

Juhwan Lee, Hyun-Bin Kim, Minkyoo Jeong (Hanbat Nat'l Univ., Korea), Jinseong Moon, Taesun Kim (Hexapro Co.,Ltd., Korea), Jonghee Lee, and Jae-Hyun Lee (Hanbat Nat'l Univ., Korea)

[P2-178]

Investigating White Emission in TAPC OLEDs: Role of ETL Planarity and Exciton Dynamics

Mengdi Fu, Insung Ha, Chang Min Lee, Hyun Jae Lee (Dongguk Univ., Korea), Chul Hoon Kim (Korea Univ., Korea), and Seung Yoon Ryu (Dongguk Univ., Korea)

[P2-179]

Wearable Natural Phytochemical OLED Patch for Anti-Bacterial Synergy Effect against Staphylococcus Aureus

Young Woo Kim, Sang Jik Kwon, Eou-Sik Cho (Gachon Univ., Korea), and Yongmin Jeon (Kyung Hee Univ., Korea)

[P2-180]

Analysis of Trap-Induced Giant Surface Potential in the Electron Transport Layer of OLEDs

Haewon Lee, Dong-Jun Kim, Seong-Hwan An, Woonha Lee, Si-Eun Park, Jonghee Lee, and Jae-Hyun Lee (Hanbat Nat'l Univ., Korea)

[P2-181]

Developing Stable Multi-Resonance Fluorescence Emitters for Long-Lived Blue Organic Light Emitting Diodes

Paramasivam Palanisamy, Young Hun Jung, Se Chan Cha, and Jang Hyuk Kwon (Kyung Hee Univ., Korea)

[P2-182]

Innovative Asymmetric Iridium(III) Complexes for Blue OLEDs: Strategies in Molecular Design and Device Fabrication

Chengcheng Wu, Kai-Ning Tong, and Guodan Wei (Tsinghua Univ., China)

[P2-183]

Multiple Donor Modification of Boron-Based Emitters to Produce Aggregation-Induced Emission and Thermally Activated Delayed Fluorescence for Blue OLEDs

Min Jeong Kwon (Gachon Univ., Korea), Yeonju Jeong (Kyung Hee Univ., Korea), Jae Hee Lee (Gachon Univ., Korea), Sunwoo Kang (DanKook Univ., Korea), Taekyung Kim (Kyung Hee Univ., Korea), and Wan Pyo Hong (Gachon Univ., Korea)

[P2-184]

Hydrogen Permeability of Low-Temperature SiN_x Films: Influence of Impurities Incorporation with TSA and BTBAS Precursors

Tae Ri Yang, Ji-Min Kim (Hanyang Univ. & LG Display Co., Ltd., Korea), Baek Ji Ho, Oh Min Ho, Kim Seong Jun (LG Display Co., Ltd., Korea), and Jin-Seong Park (Hanyang Univ., Korea)

[P2-185]

Quantification and Management of Förster and Dexter Energy Transfer Rates in Phosphor-Sensitized Fluorescence Device for High Efficiency

Dong Jin Shin, Jihoon Kang, Jangho Moon (Sungkyunkwan Univ., Korea), Jae-Min Kim (Chung-Ang Univ., Korea), and Jun Yeob Lee (Sungkyunkwan Univ., Korea)

[P2-186]

Enhancing Light Extraction Efficiency through Analysis of HTL Refractive Index Impact on Current Efficiency

Young Rok Kim, Jae Ho Song, Ji Seong Kim (Kyung Hee Univ., Korea), Jihee Son, Seungyong Song (Samsung Display Co., Ltd., Korea), and Min Chul Suh (Kyung Hee Univ., Korea)

[P2-187]

Analysis of Transport and Optical Characteristics of Green Tandem OLEDs by Impedance Spectroscopy

Subin Choi, Ilgyu Choi, Sangjin Min, Jong-In Shim, and Dong-Soo Shin (Hanyang Univ., Korea)

[P2-188]

Depth Analysis of Organic Multilayer in the Pixel with Oblique Etched Surface by LDI-TOF Mass

Bumhee Jang, Hyo Jin Bang, Byeong Heon Song, Jooyeon Oh (ASTA Inc., Korea), and Chan-Jae Lee (KETI, Korea)

[P2-189]

Elucidating and Manipulating the Excited-State Dynamics in Intermolecular Charge Transfer Aggregates for Highly Efficient Near-Infrared OLEDs

Yu Dai, Jingyi Xu, and Juan Qiao (Tsinghua Univ., China)

[P2-190]

High-Efficiency and Stable Tandem Organic Light-Emitting Diodes based on In Situ Coordination-Activated N-Doping

Xiao Li, Minqiang Mai, and Lian Duan (Tsinghua Univ., China)

[P2-191]

Linear Annulation Engineering of Indolocarbazole Multiple Resonance Emitter to Overcome Efficiency-Stability-Color Purity Trilemma in Deep-Blue OLEDs

Qian Wang, Hai Zhang, Minqiang Mai, Dongdong Zhang, and Lian Duan (Tsinghua Univ., China)

[P2-192]

Dendritic Thermally Activated Delayed Fluorescence Material with High Molecular Horizontal

Guimin Zhao and Wei Jiang (Southeast Univ., China)

[P2-193]

Efficiency Enhancement via Triplet Sensitization in Red D-A-A' TADF Emitter: A Comparative Study of Phosphorescent and TADF Sensitizers

Nurul Ridho Al Amin, Yi-Ting Chen, Chi-Hao Huang, Chih-Hao Chang (Yuan Ze Univ., Taiwan), Yun-Tzu Tseng, and Yuan Jay Chang (Tunghai Univ., Taiwan)

[P2-194]

Physical Gradients Ternary Solvent System Design and Process Control for Stable OLED Inkjet Printing

Ji Eun Kim, Minsun Kim, Yoon-Jeong Choi, and Byung Doo Chin (Dankook Univ., Korea)

[P2-195]

LDI-TOF-MS Analysis of Deuterated Material and Fragmented Ions for OLEDs

Seora Kim and Choon Woo Lim (Hannam Univ., Korea)

[P2-196]

Development of Transparent Li-Doped In_2O_3 Electrodes with Low-Work Function for Top-Emission Organic Light-Emitting Diodes

Ju-Yong Kim, Ji-Yoon Chae, Hyeon Seok Lee, Ye-Jin Shim, Chang-Shin Park, Jun-Hyeok Kang (Sungkyunkwan Univ., Korea), Hwi Kim, Seungyong Song (Samsung Display Co., Ltd., Korea), and Han-Ki Kim (Sungkyunkwan Univ., Korea)

[P2-198]

Spontaneously Formed Buckling Patterns of Top-Emitting Organic Light Emitting Diodes for Improved Viewing Angle and Light Extraction Efficiency

Yoon-Jeong Choi, Jeong-Yeol Yoo, Sung Beom Kim, Jisoo Kyoung, and Byung Doo Chin (Dankook Univ., Korea)

[P2-199]

External Quantum Efficiency Doubled by Surface-Engineered Light Scattering in Top-Emission Microcavity OLEDs

Young Rok Kim, Chae Min Lee, and Min Chul Suh (Kyung Hee Univ., Korea)

[P2-200]

Thermally Conductive Hydrogel Substrate with Adhesive Surfaces on Both Sides for Effective Heat Dissipation in Wearable Devices

Byeonggeol Lee, Dongju Jang, and Yongtaek Hong (Seoul Nat'l Univ., Korea)

[P2-201]

Electrohydrodynamic Printing-Assisted Facile Interconnection Patterning for High Resolution Stretchable Circuits

Dongju Jang, Jong Ho Park, Byeonggeol Lee, Chanmin Park, and Yongtaek Hong(Seoul Nat'l Univ., Korea)

[P2-202]

Suppression of Photo Leakage Current Using Anode Extension in OLEDs

Jaebeen Lee (Seoul Nat'l Univ. & Samsung Display Co., Ltd., Korea), Soobin An, Ji-Ho Lee, Chanjin Park (Seoul Nat'l Univ., Korea), Jaybum Kim (Samsung Display Co., Ltd. & Seoul Nat'l Univ., Korea), and Soo-Yeon Lee (Seoul Nat'l Univ., Korea)

[P2-203]

Application of Light Field Display for Immersive Smartwatch Interfaces

Hoon Kang, Wook Jeon, JuSeong Park, JoungWon Woo, InJue Kim, JoonYoung Yang, and SooYoung Yoon (LG Display Co., Ltd., Korea)

[P2-204]

Realization of a Compact Vari-Focal Hard Edge Masking Extended Reality System Using an Optical Folding Component

Junho Lee, Hyeontaek Lee, Heechan Lee, and Hee-Jin Choi (Sejong Univ., Korea)

[P2-205]

Realization of a Speaker-Oriented Augmented Reality Hearing-Aid System Using a Microphone Array and Face Recognition

Heechan Lee, Hyeontaek Lee, Junho Lee, and Hee-Jin Choi (Sejong Univ., Korea)

[P2-206]

Enlargement of Viewing Zone by Multiple Light Sources in Holographic Display with Wide Field-of-View

Sora Iwai, Ryo Yoshioka, Yuji Sakamoto, Seok Kang, Takashi Hikage, and Manabu Yamamoto (Hokkaido Univ., Korea)

[P2-207]

Enhanced Performance of Quantum Dot Light Emitting Diodes through UV Irradiation during Drying Process

Jin Hong Park, Jae Yeong Jeong, Seok Hwan Jang, Sung Jun Park, Jaebum Jeong, Collins Kiguye, Seong Woo Jeong, and Jun Young Kim (Gyeongsang Nat'l Univ., Korea)

[P2-208]

Dual-Mode Atomic Layer Deposition with Periodic ZnO Insertion for Precise Hydrogen Control in High-Mobility IZO Thin-Film Transistors

Taehwan Boo, Sunghwan Park, and Sang-Hee Ko Park (KAIST, Korea)

[P2-209]

Plasma Etch Resistance and Particle Suppression Behavior of Densified Y_2O_3 Coatings Fabricated by Atmospheric Plasma Spray

Gyutae Park (Yonsei Univ. & LG Display Co., Ltd., Korea), Hyunho Yang (Yonsei Univ., Korea), Minjin Lee, Kiin Choi (KICET, Korea), and Hyun S. Kum (Yonsei Univ., Korea)

[P2-210]

Fatigue Life Prediction of Load Lock Clamp Using Static Stress Evaluation

Taekyung Lee and Yeonhee Kim (Hoseo Univ., Korea)

[P2-211]

Optimization of Plasma-Enhanced Chemical Vapor Deposition-Deposited H: SiN_x Films through H_2 Flow Rate Modulation for Improved Water Vapor Transmission Rate Performance

Sunghwan Park (KAIST, Korea), Youson Kim (KIST, Korea), and Sang-Hee Ko Park (KAIST, Korea)

[P2-212]

Prediction of Low Deformation Rate Creep Behavior of Polyethylene via Molecular Dynamics Simulation with Ree-Eyring Theory

Changhwan Ji, Hyungshick Park, and Bong June Sung (Sogang Univ., Korea)

[P2-213]

A Study on an Accurate Quantitative Method for Surface Quality Inspection of Displays

Do-Young Jeong, Gang-Ho Go, and Kwan-Young Han (Dankook Univ., Korea)

[P2-214]

Controlling SnOx Stoichiometry for Fabricating High-Performance n-Type and p-Type TFTs

Ire Oh and Junsin Yi (Sungkyunkwan Univ., Korea)

[P2-215]

Selective Infiltration of Al_2O_3 in Inorganic-Polymer Hybrid Encapsulation Layer for Flexible OLED

Ye Jin Jeong, Si Eun Jung, Su Min Eun, Ji Ho Jeon, Jeong Hwan Han (Seoul Nat'l Univ. of Science and Tech., Korea), Kwanhyuck Yoon, Woo Yong Sung (Samsung Display Co., Ltd., Korea), and Byung Joon Choi (Seoul Nat'l Univ. of Science and Tech., Korea)

[P2-216]

Repeated HAT-CN/CuPc Stack Charge Generation Layers for Enhanced Tandem Organic Light Emitting Diode Efficiency

Yejin Kim (Sungkyunkwan Univ., & Samsung Institution of Tech., Korea), Hyo-Bin Kim, Minsu Kim, Seung-Hoon Lee (Sungkyunkwan Univ., Korea), and Jang-Kun Song (Sungkyunkwan Univ., & Samsung Institution of Tech., Korea)

[P2-217]

Mask-Free Organic Quantum Dot Hybrid AC Driven Color Tunable Light Emitting Diodes

Sung-Cheon Kang, So-Jeong Lim, and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[P2-220]

RGB Fluorescent OLEDs with MHz-Range Bandwidth for Visible Light Communication

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

[P2-221]

Analysis of Spontaneous Orientation Polarization in the Mixed-Host Emission Layer of Organic Light-Emitting Diodes

Si-Eun Park, So-Young Boo, Akeem Raji, Jae-Yong Park, Somi Park, Eun-Jeong Jang, Jonghee Lee, and Jae-Hyun Lee (Hanbat Nat'l Univ., Korea)

[P2-222]

Chemically Robust ITO/Ag/a-IZO Reflective Electrode for Suppressing Ag Eruption in Organic Light-Emitting Diodes

Kwansoo Kim, Soyeong Jeong, Minjee Kim, Jong Woo Park, Ji Hyun Roh, Seok Hyun Kim, Mingeun Song, Ji Ho Baek, and Soo Young Yoon (LG Display Co., Ltd., Korea)

[P2-223]

Magnetic Field Effects on Photoluminescence of Exciplex Emission in Organic Light-Emitting Diodes

Soon-Sung Kwan, Hyun-Bin Kim, Sungmin Kwon, Eun-Jeong Jang, Da-Bin Yoon, Jonghee Lee, and JaeHyun Lee (Hanbat Nat'l Univ., Korea)

[P2-224]

A Study on Improving the OLED Encapsulation Process Using COP-Based Multilayer Composite Structure Films

Ji-hoon Park and Kwan-young Han (Dankook Univ., Korea)

[P2-225]

A Dark Emission in a Blue Tandem Organic Light Emitting Diode

Masaru Inoue (TOYOTech LLC, USA), Masanobu Mizusaki (Sharp Corp., Japan), and Hideyuki Murata (Japan Advanced Inst. of Science and Tech., Japan)

[P2-226]

Spontaneous Spreading Process for OLED-OPD Integration with Enhanced NIR Selectivity Toward Non-Contact Touch Applications

Minju Choi and Jung-Yong Lee (KAIST, Korea)

[P2-228]

DFT-Based Adhesion Analysis between Cu Electrode and Interfacial Layer Materials

Jae-Seong Jeong, Won-Gyu Choi (KETI, Korea), and Hiroya Nitta (JSOL Corp., Japan)

[P2-229]

Electrochemical and Simulation-Based Analysis of Wet Etching Processes for Fine Cu Wiring Electrodes

Won-Gyu Choi and Jae-Seong Jeong (KETI, Korea)

Session Title:	P3. Poster Session 3
Session Date:	August 22 (Fri.), 2025
Session Time:	14:00-15:30
Session Room:	2A Hall

[P3-001]

The Utilization of Binocular Fusion in Stereo Perception Optimization

Yueyuan Zhang (Southeast Univ. & Shi-Cheng Lab., China), Zhenping Xia (Suzhou Univ. of Science and Tech., China), and Yuning Zhang (Southeast Univ. & Shi-Cheng Lab., China)

[P3-002]

SDGs-POP: Non-Electrical Variable POP Display Using Punching Sheet Screen which Enables to Change Apparent Shape by Optical Illusions on Frame Design

Kunio Sakamoto and Kanaho Ishikawa (Konan Univ., Japan)

[P3-004]

Development of an Anti-Reflective Coating for Curved Glass with Minimal Reflection Color Variation in Curved Regions

Dahye Kim, Juyoung Yoon, Hyunhyang Kim, Mansoo Kim, and Joonhyung Kim (Samsung Display Co., Ltd., Korea)

[P3-006]

Comparison of XYZ Tristimulus Colorimeter Accuracy Across Spectral Shifts in OLED Display Manufacturing: Unique Method vs. Bodner Method vs. Extended Unique Method

Hyongmin Hahm (Incheon Nat'l Univ. & Admesy Technologies Asia, Korea) and Seongyun Kang (Admesy Technologies Asia, Korea)

[P3-007]

Optimized Selection of Reference DUTs for the Extended Unique Matrix to Improve XYZ Tristimulus Colorimeter Accuracy Over Spectral Shifts Across DUTs in OLED Display Manufacturing

Hyongmin Hahm (Incheon Nat'l Univ. & Admesy Technologies Asia, Korea) and Seongyun Kang (Admesy Technologies Asia, Korea)

[P3-008]

Optimized Selection of Reference DUTs for the ASTM Matrix in Correcting XYZ Tristimulus Colorimeter Measurements over Spectral Shifts in OLED Production

Hyongmin Hahm (Incheon Nat'l Univ. & Admesy Technologies Asia, Korea) and Seongyun Kang (Admesy Technologies Asia, Korea)

[P3-009]

Effects of Display-Based Eye Movement Exercises on Dry Eye Syndrome and Dry Mouth

Hyunjin Kim (Kookje Univ., Korea) and Hyungoo Kang (Catholic Kwandong Univ., Korea)

[P3-010]

Comparison of Perceived Brightness and Colorfulness vs. Display Technology

Steffen Reichel, Karlheinz Blankenbach, Pascal Ulmer, Lukas Eger (Pforzheim Univ., Germany), and Dale Stoltzka (Samsung Display Co., Ltd. America Lab, USA)

[P3-011]

A Measurement for Capturing the Loss of Details in Dark Images

Inhye Heo, Hyungsuk Hwang, Hyunah Suh, Hyosun Kim, Dongyeol Yeom, and Yongwoo Yi (Samsung Display Co., Ltd., Korea)

[P3-012]

Effects of Surrounding Conditions on Color Discrimination of Aerial Images

Tomoya Tonomura (Yamagata Univ., Japan), Haruki Mizushima (Shinshu Univ., Japan), Hirotsugu Yamamoto, Shiro Suyama (Utsunomiya Univ., Japan), Kenji Yamamoto (Tokushima Univ., Japan), and Yasuki Yamauchi (Yamagata Univ., Japan)

[P3-013]

Effects on Reading Speed from Lighting, Display Condition, and Letter Strokes

Hyeran Kang, Junyeong Kim (Yeungnam Univ., Korea), Hayoung Lee (Kyungpook Nat'l Univ., Korea), Nahyeon Kim, Chan-Su Lee (Yeungnam Univ., Korea), and Arnold Wilkins (Univ. of Essex, UK)

[P3-014]

Nano Structure Optical Sensor for Detection of Troponin T

Sehyuk Yeom, Sanghoon Jung, Jae-Sung Lee, Byoungcho Kang, Sae-Wan Kim, and Wang-Hoon Lee (GERI, Korea)

[P3-015]

Influence of Plasticizers on the Mechanical Properties of Carboxymethyl Cellulose-Based Conductive Films for Wearable Electronics

Seoyeon Kim, Hyunjun Jang (Hanbat Nat'l Univ., Korea), Jooho Lee (Hanbat Nat'l Univ. & ETRI, Korea), Baeksang Sung, Hyerin Kang, Sohee Jang, Jae-Hyun Lee (Hanbat Nat'l Univ., Korea), Yong-Hyun Kim (Pukyong Nat'l Univ., Korea), and Jonghee Lee (Hanbat Nat'l Univ., Korea),

[P3-016]

Scattering-Based Optoelectronic Pressure and Strain Sensor Using TiO₂ PDMS Composite Film

Beom-Jun Lee and Sang Min Won (Sungkyunkwan Univ., Korea)

[P3-017]

Transparent Uniformly Stretchable Heating Organic Light-Emitting Diodes with Kirigami Pattern: Toward Textile-Based Wearable Theragnosis Applications

Seojin Kim, Sang Jik Kwon, Eou-Sik Cho (Gachon Univ., Korea), and Yongmin Jeon (Kyung Hee Univ., Korea)

[P3-018]

Non-Invasive Neonatal Jaundice Theragnosis Using the Wearable Textile-Based Blue Organic Light Emitting Diode and Organic Photodiode

Chaeyeong Lee, Sang Jik Kwon, Eou-Sik Cho (Gachon Univ., Korea), and Yongmin Jeon (Kyung Hee Univ., Korea)

[P3-019]

Soft Artificial Finger Pad with Identifiable Wrinkles

Juyeong Lee and Kyoseung Sim (UNIST, Korea)

[P3-020]

Multi-Wavelength Hydrocolloid Based Stretchable Quantum Dots Organic Light Emitting Diodes Patch: Simultaneous Sensing and Photomedicine

In Ho Kim, Young Woo Kim, Sang Jik Kwon (Gachon Univ., Korea), Oh Kwan Kwon (InnoQD Co., Ltd., Korea), Eou-Sik Cho (Gachon Univ., Korea), and Yongmin Jeon (Kyung Hee Univ., Korea)

[P3-021]

Enhanced Interfacial Adhesion for All-Soft Vertical OPDs via Chemical and Physical Strategies

Haechan Park, Daeun Kim, and Kyoseung Sim (UNIST, Korea)

[P3-022]

Microneedle-Integrated Organic Light-Emitting Diodes for Synergistic Light and Drug Delivery in Wearable Biomedical Systems

Dongjun Kim (KyungHee Univ., Korea), Min Sung Park, Eou-Sik Cho (Gachon Univ., Korea), Sanha Kim, Na Young Yoo, Sookie La, Do Hyeon Jong (Raphas Co., Ltd., Korea), and Yongmin Jeon (KyungHee Univ., Korea)

[P3-023]

Wearable OLED Electroceutical Cap Platform Utilizing 40 Hz Red-Light Visual Stimulation for the Treatment of Canine Cognitive Dysfunction Syndrome

Young Hun Jung, Minwoo Park (KAIST, Korea), Yunhye Kim (Jeonbuk Nat'l Univ., Korea), Byeongju Noh (KAIST, Korea), Jiyun Lee, Ji-Eun Lee, Ja Wook Koo (Korea Brain Research Inst. & DGIST, Korea), Chul Park (Jeonbuk Nat'l Univ., Korea), and Kyung Cheol Choi (KAIST, Korea)

[P3-024]

Transparent OLEDs With Single-Mask '+'-Patterned Mesh Electrodes for Potential PPG Sensor Applications

Dong Gyun Kim, Young Woo Kim, Eou-Sik Cho, and Sang Jik Kwon (Gachon Univ., Korea)

[P3-026]

Multifunctional Hydrocolloid Smart Patch based on Red OLED and OPD: Simultaneous Implementation of Diagnosis and Phototherapy

Minseong Park, Jae-Young Jeong, Sang Jik Kwon, Eou-Sik Cho (Gachon Univ., Korea), and Yongmin Jeon (Kyung Hee Univ., Korea)

[P3-027]

Textile-Based Stretchable OLED for Motion-Stable PPG Measurements

Ye Ji Shin, Sang Jik Kwon, Eou-Sik Cho (Gachon Univ., Korea), and Yongmin Jeon (Kyung Hee Univ., Korea)

[P3-028]

Bio-Organic Light-Emitting Diode Patch with Low Voltage and High Efficiency for Human Body Attachment

Hyeonseong An and Jeong Hyun Kwon (Chungbuk Nat'l Univ., Korea)

[P3-029]

Study on the Transition of Photodiode-Photoconductor Operation Modes by Adjusting the Active Layer Ratio in Organic Photodetectors

Sinhui Min, Seong Jin Lee, Juwan Lee, Dong Hyun Kim, and Donggu Lee (Gyeongsang Nat'l Univ., Korea)

[P3-030]

Self-Powered Cu-In-Se Quantum Dot Photodiodes for Wearable Photoplethysmographic Monitoring

Shi Li (DGIST, Korea), Jae Hong Jang, Moon Kee Choi (UNIST, Korea), and Jiwoong Yang (DGIST, Korea)

[P3-031]

Implementation of a Stretchable Neuromorphic Integrated System based on Artificial Synaptic Devices

Seongsik Jeong, Hyeseon Jo, Taesik Kong, Donghyeon Seo, and Hae-Jin Kim (Yonsei Univ., Korea)

[P3-032]

Intrinsically Stretchable Ferroelectric Synaptic Memory via Cross-Linked P(VDF-TrFE) for Biomimetic Neural Systems

Taesik Kong, Seongsik Jeong, and Hae-Jin Kim (Yonsei Univ., Korea)

[P3-033]

Aerial Projection Screen Using Fluffy Cotton Candy Made from Sugar Syrups for Aero Signage Which Enables to Pass Through Floating Images

Kunio Sakamoto and Yuuta Tokura (Konan Univ., Japan)

[P3-034]

Efficient Algorithm to Simulate and Optimize a Multilayer Spaceplate

Hak-Ryeol Lee and Sun-Je Kim (Soongsil Univ., Korea)

[P3-035]

Al Doping Concentration Effects in HfO₂ Ferroelectric Memory Fabricated via Low-Temperature PDA Annealing

Yumeng Guo, Zhong Pan, Junzhe Zhang, Fucheng Wang, Jingwen Chen, Yunhui Jang, and Hyunseo Park, Yong-Sang Kim, Jang-Kun Song, Muhammad Quddamah Khokhar, and Junsin Yi (Sungkyunkwan Univ., Korea)

[P3-036]

Effective Suppression of Leakage Current in SnO₂ Thin Films Enabled by Low-Concentration Al Doping

Junzhe Zhang, Zhong Pan, Yumeng Guo, Yunhui Jang, Mengmeng Chu, Jangkun Song, Yongsang Kim, Sangmin Hong, Muhammad Quddamah Khokhar, and Junsin Yi (Sungkyunkwan Univ., Korea)

[P3-037]

Formation of Ni₃In₂Se₂ Alloy via Annealing of Ni-Deposited InSe Flakes

Taehyuk Jang and Jin-Hong Park (Sungkyunkwan Univ., Korea)

[P3-038]

Covalent Heterostructures of Ultrathin Amorphous Carbon Nitride and Si for High-Performance Vertical Photodiodes

Hyojin Seung, Jinsol Bok, Ji Su Kim, and Dae-Hyeong Kim (IBS & Seoul Nat'l Univ., Korea)

[P3-039]

Interface-Modified Nickel Oxide Hole Transport Layers for Highly Efficient Perovskite Light-Emitting Diodes

Hyungdoh Lee and Himchan Cho (KAIST, Korea)

[P3-040]

Oxidative Defect Removal in Eco-Friendly InP Quantum Dot Synthesis via In Situ HF Etching: Experimental and First-Principles Insights

Awais Ali (Korea Univ., Korea), William A. Goddard III (California Inst. of Tech., USA), Muhammad Imran (Univ. of Toronto, Canada), and Soong Ju Oh (Korea Univ., Korea)

[P3-041]

Enhancement of Memory Window in Capacitorless DRAM based Oxide TFT through Threshold Voltage Control Strategy

Chahwan Yang, Mirinae Lee (ETRI & Univ. of Science and Tech., Korea), Junghoon Han (ETRI & Korea Univ., Korea), and Sooji Nam (ETRI & Univ. of Science and Tech., Korea)

[P3-042]

Spectroscopic Insight into Customized Iodine Ligands Passivated Red-Emitting CsPb(Br,I)₃ Perovskite Nanocrystals via Time-Resolved Photoluminescence

Hyun Jae Lee (Dongguk Univ., Korea), Jae Yong Suh (Michigan Technological Univ., USA), Sungho Choi (KRICT, Korea), Seung Yoon Ryu (Dongguk Univ., Korea), and Chul Hoon Kim (Korea Univ., Korea)

[P3-043]

Fabry-Perot Structured Electrochromic Technology with Tunable Color and Infrared Reflectance for Adaptive Camouflage Applications

Jae Woo Seo (Hanyang Univ. & ETRI, Korea), Ju Hyun Park (ETRI & Korea Univ., Korea), Yongjun Lee, Chil Seong Ah, Jisu Han, Juhee Song (ETRI, Korea), Nuri Oh (Hanyang Univ., Korea), and Tae-Youb Kim (ETRI, Korea)

[P3-046]

High-Performance Oxide TFTs via Heterojunction Engineering for Low-Power Applications

Jung Hoon Han (ETRI & Korea Univ., Korea), MiRiNae Lee, Chahwan Yang (Univ. of Science and Tech., Korea), Byeong-Kwon Ju (Korea Univ., Korea), and Sooji Nam (ETRI & Univ. of Science and Tech., Korea)

[P3-047]

Carrier Type Modulation of ALD SnO₂ Thin Films via Low-Temperature D₂ Plasma Treatment for Thin-Film Transistor Applications

Hyejeong Jin, Zhong Pan, Junhan Bae, Yunhui Jang, Seokjin Jang, Sangheon Park, and Junsin Yi (Sungkyunkwan Univ., Korea)

[P3-048]

Fabrication of Meta-Mirror Surfaces based on Nano-Imprint Lithography for Ultra-Realistic Displays

YoonJeong Lee (KIMM & Hanyang Univ., Korea), YoungYoon Lim (KIMM & Chungnam Nat'l Univ., Korea), Yunji Eom, JooHyung Lee, Soongeun Kwon (KIMM, Korea), Nuri Oh (Hanyang Univ., Korea), Seung-Yeol Lee (Kyungpook Nat'l Univ., Korea), Hyungjun Lim, and Hak-Jong Choi (KIMM, Korea)

[P3-049]

Scalable Fabrication of High-Resolution GaN Nanorod Array for Ultra-Realistic Display Applications

Youngyoon Lim (KIMM & Chungnam Nat'l Univ., Korea), JooHyung Lee (Hanyang Univ., Korea), YoonJeong Lee (KIMM & Hanyang Univ., Korea), Yunji Eom, Soongeun Kwon, Hyungjun Lim (KIMM, Korea), Yong-Ho Ra (Jeonbuk Nat'l Univ., Korea), Jeong-Hong Min (KOPTI, Korea), and Hak-Jong Choi (KIMM, Korea)

[P3-050]

Photospike-Based True Random Number Generation for Secure Image Processing in the Age of AI

Juhyung Seo (Hanyang Univ., Korea), Seungme Kang, Taehyun Park (Gachon Univ., Korea), and Hocheon Yoo (Hanyang Univ., Korea)

[P3-051]

Vacuum-Deposited Polymer Dielectric for Scalable Stretchable Electronics

Juchan Kim, Juyeon Kang, and Sung Gap Im (KAIST, Korea)

[P3-052]

Additive-Free Thermally Evaporated Tin Halide Perovskite Transistors

Wonryeol Yang, Wantae Park, Youjin Reo, Soohwan Yoo, Sungjae Cho, and Yong-Young Noh (POSTECH, Korea)

[P3-053]

Van der Waals Thin Film Transistors for Stretchable Displays

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

[P3-054]

Threshold Voltage Engineering in Dual-Gated MoS₂ Field-Effect Transistor

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

[P3-055]

Highly parallel and Ultra-Low-Power Probabilistic Reasoning with Programmable Gaussian-like Memory Transistor

Jeong-ik Park, Changhyeon Lee (KAIST, Korea), Junhwan Choi (Dankook Univ., Korea), Chungryel Lee (KAIST, Korea), Hocheon Yoo (Hanyang Univ., Korea), and Sung Gap Im (KAIST, Korea)

[P3-056]

Dopant Control of Solution-Processed CuI:S for Highly Conductive p-Type Transparent Electrode

Minki Son and Myung-Gil Kim (Sungkyunkwan Univ., Korea)

[P3-057]

Solid Electrolyte-Gated Indium-Gallium Oxide Transistors for Low-Power Computing Systems

Beop-Gun Son and Kang-Jun Baeg (Pukyong Nat'l Univ., Korea)

[P3-058]

Ultrasonic Spray Coated Gallium Doped Cadmium Oxide Thin Film Transistor for Advanced Electronic Applications

Azati Daniel Kofi and Kang-Jun Baeg (Pukyong Nat'l Univ., Korea)

[P3-059]

Transparent Ultraviolet Photodiode with Enhanced Responsivity and Optical Transparency for Continuous Healthcare Monitoring

Yu Bin Kim and Seong Jun Kang (Kyung Hee Univ., Korea)

[P3-060]

Improve the Stability of Quantum-Dot Light Emitting Diodes Using Inorganic HfO_x Hole Transport Layer

Jung Min Yun and Seong Jun Kang (Kyung Hee Univ., Korea)

[P3-061]

Enhanced Charge Balance in QLEDs Using Oxygen Vacancy in Nb_2O_5 Interfacial Layer

Min Jung Choi and Seong Jun Kang (Kyung Hee Univ., Korea)

[P3-062]

Photothermally Cross-Linked Zirconium-Oxo Cluster Thin Film for Multifunctional Dielectric Material

Yeong Min Sun and Myung-Gil Kim (Sungkyunkwan Univ., Korea)

[P3-063]

Control Color Purity and RGB Color Balance through Flexible Dual Fabry-Perot Interferometer

Keun Soo Shin and Yun Seon Do (Kyungpook Nat'l Univ., Korea)

[P3-064]

Adjustable Color-Purity and Optical Intensity by Metal-Insulator-Distributed Bragg Reflector Structure

Ho Yeong Im, Keun Soo Shin, Hyo Jong Cho, and Yun Seon Do (Kyungpook Nat'l Univ., Korea)

[P3-065]

Optimizing Electrical Properties of MoS_2 FETs through Thickness-Split Analysis and High- κ Interface Engineering

Yucheon Kim and Jin-Hong Park (Sungkyunkwan Univ., Korea)

[P3-066]

One-Step Printable Platform for Metasurface Using Nanoparticle-Embedded-Resin

Chanwoong Park, Seungyeon Lee, and Heonlee (Korea Univ., Korea)

[P3-067]

Bio-Inspired Organic Synaptor with In Situ Ion-Doped Ultrathin Polyelectrolyte Containing Acetylcholine-Like Cation

Youson Kim, Junyeong Yang, and Sung Gap Im (KAIST, Korea)

[P3-068]

Substrate-Free CsPbBr₃ Perovskite Visible-Light Photodetector by Simple Powder-Pressed Wafer Approach

Seungchae Jung (KITECH, Korea), Hee Jeong Park (KITECH & Korea Univ., Korea), Se-Woong Baek (Korea Univ., Korea), and Seunghwan Bae (KITECH, Korea)

[P3-069]

Localized Sound-Integrated Display Speaker Using Crosstalk-Free Piezoelectric Vibration Array

Inpyo Hong and Su Seok Choi (POSTECH, Korea)

[P3-070]

High-Sensitivity Thermistor Devices Incorporating Lead-Free Cs₂PdI₆ Layers via Drop-Casting Deposition.

Hanmin Kim, Nagaraju Mukurala, Yunsung Lee, Hyeonjong Lee (Incheon Nat'l Univ., Korea), and Sung Hun Jin (Kyung Hee Univ., Korea)

[P3-071]

Architected Nafion Electrolytes with Fibrillar Channels for Forceful, Fast Actuation

So Young Kim, Jeong Sub Lim, Minjeong Kim, Hanbin Choi, and Do Hwan Kim (Hanyang Univ., Korea)

[P3-072]

Biodegradable AZ₃₁ Mg Anode Paired with WO₃-Coated Mo Cathode for Sustainable Transient Batteries in Water Electrolysis

Hyeon-Bin Jo, Mukurala Nagaraju, Dhananjay Mishra, and Sung Hun Jin (Kyung Hee Univ., Korea)

[P3-073]

Mass Production of Metasurfaces Using BaTiO₃ Nanoparticle-Embedded Resin (nano-PER)

Seungyeon Lee, Chanwoong Park, Hansang Sung, Hyeonseong Yoon, and Heon Lee (Korea Univ., Korea)

[P3-075]

Metasurface Fabrication via Molecular Layer Deposition: Nanostructure Formation through Surface Engineering Using Small Molecule Inhibitor

Hae Lin Yang, Gi-Beom Park (Hanyang Univ., Korea), Jinhong Park, Kwang Heo (Sejong Univ., Korea), Bo Keun Park, Jung-Hoon Lee (KRICT, Korea), and Jin-Seong Park (Hanyang Univ., Korea)

[P3-076]

Enhanced Large-Area Graphene Transfer by Electrochemical Delamination: Role of Electrolytes in Doping Control

Eunjin Hwang (KIMM & Hanyang Univ., Korea), Dawoon Jo (KIMM, Korea), Seojin Hong, Kwang-Seop Kim, Jae-Hyun Kim, and Hyeon-Don Kim (KIMM & Univ. of Science & Tech., Korea)

[P3-077]

Additive-Engineered Oxidation Mitigation in Lead-Free Tin Perovskite Red Light-Emitting Diodes

Hee-Seung Lee and Jung-Yong Lee (KAIST, Korea)

[P3-078]

High-Performance P-Type TeFETs Enabled by Plasma-Induced Sub-Gap Engineering

Junho Lee, Uisik Jeong, and Sunkook Kim (Sungkyunkwan Univ., Korea)

[P3-079]

Fabrication and Optical Optimization of Nanopatterns via Nanosphere Lithography

Su Jin Kim, Jeong Min Park, Yongsu Lee, Han Soo Kim, Jang Ho Ha, and Chang Goo Kang (KAERI, Korea)

[P3-080]

Optoelectronic Diagnostic Sensor Integrated Colorimetric Dressing for Advanced Wound Care

Ji-Hwan Ha (Hanbat Nat'l Univ. & KIMM & KAIST, Korea), Byung-Ho Kang (KIMM & KAIST, Korea), Sohee Jeon, Soon Hyoung Hwang (KIMM, Korea), Inkyu Park (KAIST, Korea), and Jun-Ho Jeong (KIMM, Korea)

[P3-081]

Substitutional Doping Effect Induced by Direct AlN Deposition on MoS₂ Thin Films via Plasma-Enhanced Atomic Layer Deposition (PEALD)

Jungyoon Hur, Junyeon Hwang, Jaewon Lee, Jongseo Won, and Woonggi Hong (Dankook Univ., Korea)

[P3-082]

Self-Powered Strain Sensor based on Piezo-Transmittive Auxetic Metamaterials

Junseong Ahn (Korea Univ. & KIMM & KAIST, Korea), Ji-Hwan Ha (KIMM & KAIST & Hanbat Nat'l Univ., Korea), Sohee Jeon (KIMM, Korea), Inkyu Park (KAIST, Korea), and Jun-Ho Jeong (KIMM, Korea)

[P3-083]

Surface Defect Suppression via Ligand Exchange for High-Performance PeQD LEDs

Seyun Lee, Sungwook Shin, and Jung-yong Lee (KAIST, Korea)

[P3-085]

Self-Powered Piezoionic Pressure Sensor with a Reinforced Hydrogel Structure

Jong-An Choi (KIMM & KAIST, Korea), Sohee Jeon, Soon Hyoung Hwang (KIMM, Korea), Inkyu Park (KAIST, Korea), and Jun-Ho Jeong (KIMM, Korea)

[P3-086]

Rational Design of n-Dopant-Compatible Electron Transport Materials for Blue Tandem OLEDs

Aradhya Rajput, Subramanian Muruganantham, Jun Hyeog Oh, and Jang Hyuk Kwon (Kyung Hee Univ., Korea)

[P3-087]

Broadband IGZO Phototransistors via Plasma-Engineered Subgap States

Subin Lim, Hyun Yeol Rho, and Sunkook Kim (Sungkyunkwan Univ., Korea)

[P3-088]

Electrical Characteristics of MoS₂ FETs Tuned by Nitrogen Doping via PEALD-Grown AlN Interfacial Layers

Jaewon Lee, Junyeon Hwang, Jungyoon Hur, Jongseo Won, and Woonggi Hong (Dankook Univ., Korea)

[P3-089]

Electrochemical Exfoliation of Large Size MoS₂ Nanosheets by Using Mixture of THA⁺ and 4-NBD⁺

Gwon Byeon, Seongmin Heo, and Yong-Young Noh (POSTECH, Korea)

[P3-090]

Gate-Tunable Positive-Negative Photoconductivity in SWNT/Te Heterojunction Transistors for Intelligent Display Application

Bokyoung Kim (Incheon Nat'l Univ., Korea), Jae Jun Lee (Kyung Hee Univ., Korea), Sung Hun Choi, and Sang Seung Gwak (Incheon Nat'l Univ., Korea), and Sung Hun Jin (Kyung Hee Univ., Korea)

[P3-091]

Green Nanotransfer Printing for Curved and Biological Substrates

Byung-Ho Kang (KIMM & KAIST, Korea), Sohee Jeon (KIMM), Soon Hyoung Hwang (KIMM), Inkyu Park (KAIST, Korea), and Jun-Ho Jeong (KIMM, Korea)

[P3-092]

Optical Elements Using Hard or Cotton Candy Layer for Aero Signage which is Floating in the Air and Enables to Keep Shapes during Display of Aerial Images

Kunio Sakamoto and Seiichi Ueda (Konan Univ., Japan)

[P3-093]

Optical Performance Enhancement of Carbon Black Doped Polymer-Dispersed Liquid Crystals

ChaeLim Han, Yeon Jin Han, Young Jin Lim, Seung Jai Kim, Seung Hee Lee, and MinSu Kim (Jeonbuk Nat'l Univ., Korea)

[P3-094]

Wideband +c-Plate Retarder Made from ZnO Nanorods

Manh-Thang Tran, Nguyen-Hung Tran, and Ji-Hoon Lee (Jeonbuk Nat'l Univ., Korea)

[P3-095]

Photoluminescence Emission Control and Blue Light Leakage Suppression in Quantum Dot Light Emitting Diode (QD-LED) via Voltage-Driven Liquid Crystal Droplet and Red-Dye Composites

GyuRi Choi, HaYoung Jung, Seung Hee Lee, and MinSu Kim (Jeonbuk Nat'l Univ., Korea)

[P3-096]

Theoretical Analysis and Solution of Line Image Sticking of High Refresh Rate Monitor

Ji Wu, An-Thung Cho, Yong Zhang, James Hsu, and Wade Chen (ChuZhou HKC Optoelectronics Tech. Co., Ltd., China)

[P3-097]

TFT Reliability Stress Model Simulation is used for G8.6 Large Size TFT-LCD

You-Zheng Lu, An-Thung Cho, Lu Mao, Feng-Yun Yang, Ting-Ting Ruan, Zhang Young, Bing Han, James Hsu, and Wade Chen (ChuZhou HKC Optoelectronics Tech. Co., Ltd., China)

[P3-098]

Influence of Porogen-Induced Nanoporosity and Molecular Alignment on the Dielectric Properties of Liquid Crystal Polymers Films

Baekman Kim, Geunjung Lee (KAIST, Korea), Jongseok Kim (Chungnam Nat'l Univ., Korea), Tae Gyun Hong, Geunho Kim (KAIST, Korea), Yeongsik Kim, Hyungju Ahn (POSTECH, Korea), Yun Ho Kim (KRICT, Korea), Hyun You Kim (Chungnam Nat'l Univ., Korea), and Dong Ki Yoon (KAIST, Korea)

[P3-099]

Chiral Self-Assembly of Liquid Crystal and Use as a Polymerization Template

Jeong Yeon Han (KAIST, Korea), Fumito Araoka (RIKEN Center, Japan), and Dong Ki Yoon (KAIST, Korea)

[P3-100]

Circularly Polarized Emission depending on Thickness of Twisted Mesogenic Luminophore

Ye-Kang Ku, So-Young Sim, Tae-Yang Kim, Jae-Hoon Kim, and Chang-Jae Yu (Hanyang Univ., Korea)

[P3-101]

Thermally Driven Polarized Emission from an Aligned Luminophore with a Patterned Reactive Mesogen

Gi-Eun Kim, Jung-Hyun Lee, Ye-Kang Ku, Jae-Hoon Kim, and Chang-Jae Yu (Hanyang Univ., Korea)

[P3-102]

Electrically Tunable Complex Reflectivity Modulation across the Visible Spectrum Using a Liquid Crystal-Integrated Metasurface

Kyunghee Choi, Jong-Heon Yang, Chi-Sun Hwang, Jaehyun Moon, and Yong-Hae Kim (ETRI, Korea)

[P3-103]

Low-Voltage, Fast-Response 3D-2D Display Using Polyimide Less Liquid Crystal Lenticular Lens Arrays

Sun-Kuk Kim, Seung-ho Hong (Sungkyunkwan Univ., Korea), Yu-Kyung Lee (Samsung Display Co., Ltd., Korea), and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[P3-104]

Electrothermally Tunable Cholesteric Liquid Crystal Lasers

Hyerin Kim, Jung Woo Park, Chaeyeong Yun (POSTETCH, Korea), Seungmin Nam (Chosun Univ., Korea), Wontae Jung, and Su Seok Choi (POSTETCH, Korea)

[P3-105]

Tunable Dual-Photonic Bandgaps based on Chiral Liquid Crystals within Polymer Templates

Wontae Jung, Chaeyeong Yun, Jung Woo Park, and Su Seok Choi (POSTECH, Korea)

[P3-106]

Electrically Tunable Double Layered Chiral Liquid Crystals with Optical Rotation Systems

Jung Woo Park, Hyerin Kim, Wontae Jung, and Su Seok Choi (POSTECH, Korea)

[P3-107]

Mechanochromic Fibers via Dip-Coating of Cholesteric Liquid Crystal Elastomers on Commercial Textile Cores

Seohyun Woo, Ji Yoon Park, Sang Hyun Han, and Su Seok Choi (POSTECH, Korea)

[P3-108]

Stretchable Circular Polarized Color Change by Recovering Microstructure of Chiral Liquid Crystal Elastomers (CLCEs)

Sang Gyeong Nam, Ji Yoon Park, and Su Seok Choi (POSTECH, Korea)

[P3-109]

Pixelated Chiral Guest-Host Liquid Crystal Film for Selective Dimming Applications

Won-Been Do, Chan-Hee Han, Chae-Yeong Yoon, and Su-Seok Choi (POSTECH, Korea)

[P3-110]

Redefining Actuating Fiber Limits through Mesophase Control: From Contraction to Elongation

Jin-Hyeong Lee, Seungjoon Oh, and Suk-kyun Ahn (Pusan Nat'l Univ., Korea)

[P3-111]

Tailoring Mechanochromic Responses in Spiropyran-Incorporated Liquid Crystal Elastomers via Direct-Ink-Writing

Kyeong-wan Kim (Pusan Nat'l Univ., Korea), Tae Ann Kim (KIST, Korea), and Suk-kyun Ahn (Pusan Nat'l Univ., Korea)

[P3-112]

Tunable Multicolor and Polarization-Selective Optical Encryption based on In-Situ Polymerized Chiral Liquid Crystals

Chaeyeong Yun (POSTECH, Korea), Seungmin Nam (POSTECH & Chosun Univ., Korea), Hyerin Kim, Wontae Jung, and Su Seok Choi (POSTECH, Korea)

[P3-113]

Spatial Manipulation of Optical Characteristics by Liquid Crystal Mixtures for High Organic Light Emitting Diode Efficiency

Seongmin Lim, JunHyung Kwon, Ahyeon Kwon, Yujin Seong, and Yoonseuk Choi (Hanbat Nat'l Univ., Korea)

[P3-114]

Light Polarization Control with a Guest-Host Liquid Crystals

Seongmin Lim (Hanbat Nat'l Univ., Korea), JunHyung Kwon, Ahyeon Kwon, Yujin Seong (Hanbat Nat'l Univ., Korea), Seung-Won Oh (Kangwon Nat'l Univ., Korea), and Yoonseuk Choi (Hanbat Nat'l Univ., Korea)

[P3-115]

Visual Performance Analysis of Transparent Antennas Integrated into Smartphone Displays

Min-Sang Kim, Hyeonsk Ahn, A-hyeon Kwon, Jun-Hyung Kwon, Yu-jin Seong, and Yoonseuk Choi (Hanbat Nat'l Univ., Korea)

[P3-116]

Active-Switching Achromatic Flat Lens With Geometric-Diffractive Hybrid Structure

Jiyeon Kim (KOPTI & Jeonbuk Nat'l Univ., Korea), Tae-Hyun Lee (KOPTI & Kyungpook Nat'l Univ., Korea), Kyung-Il Joo, Sungjin Lim (KOPTI, Korea), Hak-Rin Kim (Kyungpook Nat'l Univ., Korea), and Min-Kyu Park (KOPTI, Korea)

[P3-117]

Geometric Phase Meta Wave-Front Printer for Fabrication of Large-Area and Freeform Optical Element

Tae-Hyun Lee (Korea Photonics Tech. Inst. & Kyungpook Nat'l Univ., Korea), Kyung-Il Joo, Min-Kyu Park, Junghoon Chu, Sungjin Lim (Korea Photonics Tech. Inst., Korea), and Hak-Rin Kim (Kyungpook Nat'l Univ., Korea)

[P3-118]

Synthesis of CdHgSe Quantum Dots for Infrared Applications

Seongbin Im (Sungkyunkwan Univ., Korea), Donghyo Hahm (Los Alamos Nat'l Lab, USA), Jaeheyon Kim, Hanbyeol Kim, Jisu Hwang, Jong Ah Chae, Doyoon Shin, Jaemin Lim, Dongju Jung, Se Jong Min, Jin Su Park, Jae Seung Lee (Sungkyunkwan Univ., Korea), Victor. I. Klimov (Los Alamos Nat'l Lab, USA), and Wan Ki Bae (Sungkyunkwan Univ., Korea)

[P3-119]

Photophysical Properties of the Strain-Graded CdSe/ZnSe Quantum Dots

Sejong Min, Jeong Woo Park, Doyoon Shin, Jaemin Lim, Dongju Jung, Jong Ah Chae, Seongbin Im, Jin Su Park, Jae Seung Lee, Jae Hyeon Kim, Hanbyeol Kim, Jisu Hwang, and Wan Ki Bae (Sungkyunkwan Univ., Korea)

[P3-120]

The Edge Structure for Reflectance Reduction of High Aperture Ratio Quantum Dot Organic Light Emitting Diode

Soodong Kim, Raeyoung Kim, Jongbeom Hong, Jewon Yoo, and Seungin Baek (Samsung Display Co., Ltd., Korea)

[P3-121]

Advancements in QD Technology: Utilizing Giant Shell Quantum Dots in Inks

Soeren Becker, Sonja Zeller, Tobias Jochum, and Jan S. Niehaus (Fraunhofer IAP-CAN, Germany)

[P3-122]

On-Device Data Encryption in Visible Light Communication of Quantum Dot Permeable Electrode Light-Emitting Triodes

Seungmin Shin, Hyungdoh Lee, Wonbeom Lee, Seungwoo Lee (KAIST, Korea), Kyung-geun Lim (KRISS, Korea), and Himchan Cho (KAIST, Korea)

[P3-123]

Suppression of Efficiency Drop in Quantum Dot Light-Emitting Diodes Using Ligand-Engineered Hydrophilic QDs

Jeong Ha Hwang (Sungkyunkwan Univ. & Gyeongsang Nat'l Univ., Korea), Jisu Han (Sungkyunkwan Univ., Korea), Dong Hyun Kim, Juwan Lee, Sinhui Min, Donggu Lee (Gyeongsang Nat'l Univ., Korea), and Jaehoon Lim (Sungkyunkwan Univ., Korea)

[P3-124]

Morphological Non-Uniformity of Positive Aging in Quantum-Dot Light Emitting Diodes

Ganghyun Park, Minjun Kim (Seoul Nat'l Univ., Korea), Doyoon Shin, Wan Ki Bae (Sungkyunkwan Univ., Korea), and Jeonghun Kwak (Seoul Nat'l Univ., Korea)

[P3-125]

Controlled Growth of Giant-Sized Green InP Quantum Dots for Color Conversion and Self-Emissive LED Applications

Donghyeok Shin, Beomgyu Kim, Sunghyun Park, and Heesun Yang (Hongik Univ., Korea)

[P3-126]

High-Performance Green ZnSeTe Quantum Dots-Light-Emitting Diodes Enabled by Shell Dimensioning and Metal Doping to Shell

Sinwon Choi, Yanghee Kim, Changhoon Lee, Seoyon Kim, Minsun Kim, Hwayun Kim, Jiwon Yoo, and Heesun Yang (Hongik Univ., Korea)

[P3-127]

Highly Efficient and Absorption-Enhanced Red I-III-VI Quantum Dots as Potential Alternatives to InP Counterparts

Seunghyeok Ryu, Seong Min Park, Yuri Kim, Zeeshan Latif, Yejin Jang, and Heesun Yang (Hongik Univ., Korea)

[P3-128]

Characterizing the Electroluminescence of a Single Colloidal Quantum Dot for Single-Photon Applications

Dongju Jung, Jeong Woo Park, Doyoon Shin, Jaemin Lim, Jong Ah Chae, Seongbin Im, Sejong Min, Jin Su Park, Jae Seung Lee, Jae Hyeon Kim, Hanbyeol Kim, Jisu Hwang, and Wan Ki Bae (Sungkyunkwan Univ., Korea)

[P3-129]

Enhancing QLEDs Performance by Mitigating Electron Leakage via Electron Blocking Layers and HTL/HIL Co-Deposition

Minjun Kim, Yeongmin Moon, Soojeong Yim, and Jeonghun Kwak (Seoul Nat'l Univ., Korea)

[P3-130]

Effect of Substrate Surface Treatment on ZnMgO Nanoparticle Thin Films for Enhanced QD-LED Performance

Jin Su Park, Jeong Woo Park, Doyoon Shin, Jaemin Lim, Jong Ah Chae, Dongju Jung, Seongbin Im, Sejong Min, Jae Seung Lee, Jae Hyeon Kim, Hanbyeol Kim, Jisu Hwang, and Wan Ki Bae (Sungkyunkwan Univ., Korea)

[P3-131]

Tailoring Hole Transport Layer for Optimized Charge Balance in SnO₂-Based Quantum Dot Light Emitting Diodes

Yong Il Kim (Sungkyunkwan Univ. & Samsung Display Co., Ltd., Korea), Woon Ho Jung, Hyeonjun Lee, Yong Woo Kwon, and Jaehoon Lim (Sungkyunkwan Univ., Korea)

[P3-132]

Improving Performance of Top-Emitting Quantum Dot Light-Emitting Diodes via Water-Induced Modification of Electron Transport Layer

SooJeong Yim and Jeonghun Kwak (Seoul Nat'l Univ., Korea)

[P3-133]

Eco-Friendly Quantum Dot Ink Formulation for Bright and Stable Hydrophilic QD-Based Electroluminescent Devices

Jisu Han (Sungkyunkwan Univ., Korea), Jeong Ha Hwang (Sungkyunkwan Univ. & Gyeongsang Nat'l Univ., Korea), Byong Jae Kim, Hyoungjun Kim (Sungkyunkwan Univ., Korea), Donggu Lee (Gyeongsang Nat'l Univ., Korea), and Jaehoon Lim (Sungkyunkwan Univ., Korea)

[P3-134]

Enhanced Inhibitory Response in All-Optical Synaptic Phototransistors via Hole Transport Layer-Assisted Hybrid Heterostructure

Seungwoo Lee, Seungmin Shin, Sun Jae Park, and Himchan Cho, (KAIST, Korea)

[P3-135]

Study on the Improvement of Charge Balance in Quantum Dot Light Emitting Diodes Following the Post-Annealing Process

Jae Yeong Jeong, Seok Hwan Jang, Jaebum Jeong, Seong Woo Jeong (Gyeongsang Nat'l Univ., Korea), Haeju Kwon (Hannam Univ., Korea), Dae Yun Kim, Yeong Uk Kim, Byeong Guk Jeong (Pusan Nat'l Univ., Korea), Dong Ryeol Whang (Hannam Univ., Korea), and Jun Young Kim (Gyeongsang Nat'l Univ., Korea)

[P3-136]

Unraveling the Conduction Mechanisms of InP Quantum Dot Light-Emitting Diodes under Electrical Degradation

Minhyung Lee and Jeonghun Kwak (Seoul Nat'l Univ., Korea)

[P3-137]

ZnSeTe Blue Quantum Dot Light-Emitting Diodes with Enhanced Stability Using Electron-Withdrawing Materials in Hole Transporting Layer

Jaekwon Kim and Jeonghun Kwak (Seoul Nat'l Univ., Korea)

[P3-138]

Ligand Detachment and Interfacial Degradation Mechanisms in InP Quantum-Dot Light-Emitting Diodes

Hyungsuk Ryu (Kwangwoon Univ., Korea), Doyoon Shin (Sungkyunkwan Univ., Korea), Beomhee Yoon (Kwangwoon Univ., Korea), Wan Ki Bae (Sungkyunkwan Univ., Korea), Jeonghoon Kwak (Seoul Nat'l Univ., Korea), and Hyunho Lee (Kwangwoon Univ., Korea)

[P3-139]

Patternable InP-Based Quantum Dots Films with High Material Utilization Efficiency via Electrophoretic Deposition for Hybrid Organic Light-Emitting Devices

Maowei Huang, Hirotake Kajii (The Univ. of Osaka, Japan), Yuki Nagase (ULVAC-The Univ. of Osaka Joint Research Lab. for Future Tech., Japan), Hinata Kimura, Akihito Okamoto (The Univ. of Osaka, Japan), Shintaro Toda (ULVAC-The Univ. of Osaka Joint Research Lab. for Future Tech., Japan), and Masahiko Kondow (The Univ. of Osaka, Japan)

[P3-140]

Enhanced Operational Stability of Red InP QLEDs via Exciton Harvesting Layer

Hyeong Jin Kim and Jeonghun Kwak (Seoul Nat'l Univ., Korea)

[P3-141]

Sensitivity Improved PbS Quantum Dots (QDs) Blended Carbon-Nano Tube (CNT) Based Non-Heating Type H₂ Gas Sensor

Sae-Wan Kim, Byung-Ho Kang, Jae-Sung Lee, Se-Hyuk Yeom, Sang-Hoon Jung, and Wang-Hoon Lee (Gumi Electronics and Information Tech. Research Inst., Korea)

[P3-142]

Improvement of Efficiency of All-Solution-Processed Color-Tunable Tandem QD-LEDs via ZnO/ZnMgO Bilayer

Chan-Hui Han (Sungkyunkwan Univ. & Samsung Inst. of Tech., Korea), Young-Jae Ko, and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[P3-143]

Opto-Electrical Direct Assessment of Auger Recombination Rates of Charged Nanocrystals

Jaeseung Lee, Hakjune Lee, Sejong Min, Jeong Woo Park, Doyoon Shin, Jaemin Lim, Dongju Jung, Jong Ah Chae, Seongbin Im, Jin Su Park, Jae Hyeon Kim, Hanbyeol Kim, Jisu Hwang, Sangji Lee, and Wan Ki Bae (Sungkyunkwan Univ., Korea)

[P3-144]

Effect of Bandgap Engineering on Optoelectronic Properties of Metal-Cation-Doped ZnO Films

Hye-Ryeong Jo, Eun-Hwa Jeon, Chang-Hoon Koh (EMNI Co., Ltd., Korea), and Yoon-Bong Hahn (EMNI Co., Ltd. & Jeonbuk Nat'l Univ., Korea)

[P3-145]

Tailoring Energy Landscape at Quantum Dot-Hole Transport Layer Interface for Efficient Electroluminescence Devices

Seoyeon Choo, Yongwoo Kwon, Jisu Han, Hyoungjun Kim, and Jaehoon Lim (Sungkyunkwan Univ., Korea)

[P3-146]

Synthesis and Optimization of Green-Emitting Ag-In-Ga-S (AIGS)/GaS Quantum Dots for Next-Generation Display Application

Seon Yeong Lee, Jae Hyeok Lee, Seok Bin Kwon, Seung Hee Choi, and Young Hyun Song (KOPTI, Korea)

[P3-147]

Synthesis of Compositionally Tuned $\text{PbSe}_x\text{S}_{1-x}$ Quantum Dots for Infrared Optoelectronic Applications

Seohee Park (KITECH & Sungkyunkwan Univ., Korea), Sung Nam Lim, Shin Ae Song, Jeong Cheol Seo, Ki Young Kim (KITECH, Korea), Sohee Jeong (Sungkyunkwan Univ., Korea), and Ju Young Woo (KITECH, Korea)

[P3-148]

Enhanced Stability of Lead Halide Perovskites via SiO_2 Shelling

Seong Ho Lee (KITECH & Hanyang Univ., Korea), Sung Nam Lim, Shin Ae Song, Jeong Cheol Seo, Ki Young Kim (KITECH, Korea), Seong-Yong Cho (Hanyang Univ., Korea), and Ju Young Woo (KITECH & Hanyang Univ., Korea)

[P3-149]

Analyzing the Sequential Doping Effects of Polymer Hole Transport Layer in Quantum Dot Light-Emitting Diodes

Yeongmin Moon and Jeonghun Kwak (Seoul Nat'l Univ., Korea)

[P3-150]

Blue-Emitting InGaP Quantum Dots for QD-LEDs

Jaemin Lim, Jeong Woo Park, Jin Su Park, Dongju Jung, Doyoon Shin, Seongbin Im, Sejong Min, Jaeseung Lee, Jong Ah Chae, and Wan Ki Bae (Sungkyunkwan Univ., Korea)

[P3-151]

Tailoring the Shell Uniformity of Green Ag-In-Ga-S/AgGaS₂ Quantum Dots by Controlling Shell Growth Temperature

Jinseop Yoon, Kangwoo Lee, Boram Kim, Eunjoo Jang, and Heeyeop Chae (Sungkyunkwan Univ., Korea)

[P3-152]

Characterization Quantum Efficiency of InP/ZnSe/ZnS Quantum Dots Depending on Shell Thickness

Kangwoo Lee, Boram Kim, Yonghyeock Choi, Jinchul Park, Jinseob Yoon, Sehui Park, and Heeyeop Chae (Sungkyunkwan Univ, Korea)

[P3-153]

Synthesis of Short Wave Infrared-Active Ag₂Te Colloidal Quantum Dots

Jisun Yun (Sungkyunkwan Univ., Korea), Seohee Park (Sungkyunkwan Univ. & KITECH, Korea), Sohee Jeong (Sungkyunkwan Univ., Korea), and Ju Young Woo (KITECH, Korea)

[P3-154]

Improving ZnSeTe Quantum Dots for High-Performance and Long-Lifetime Blue QLEDs

Seongwoo Cho (KITECH & Sungkyunkwan Univ., Korea), Hyeonseung Ban, Seong Yong Cho (Hanyang Univ., Korea), Sohee Jeong (Sungkyunkwan Univ., Korea), and Ju Young Woo (KITECH, Korea)

[P3-155]

Enhanced Performance in Quantum-Dot Light Emitting Diodes via a Solution-Processed Multilayer PTAA/TFB/PVK Hole Transport Layer Structure

Byeong-Hyeon Yoo, Hyo-Bin Kim, and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[P3-156]

Enhanced Performance in Quantum-Dot Light Emitting Diodes by Acetone Post-Treatment

Seong-Hoon Lee, Hyo-Bin Kim, and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[P3-157]

High-Stability Pixelated Quantum Dot Electroluminescent Devices Using SiO₂ Insulating Layers

Hye Ju Jang, Eun A Kim, and Seong-Yong Cho (Hanyang Univ., Korea)

[P3-158]

Polymer-Engineered Halide Perovskite Scintillators for Enhanced X-ray Detection and Imaging

Ha Neul Kim, Seong Ho Lee (Hanyang Univ., Korea), Hyekyoung Choi, Bo Kyung Cha (KERI, Korea), Ju Yong Woo (Hanyang Univ. & KITECH, Korea), and Seong-Yong Cho (Hanyang Univ., Korea)

[P3-159]

Enhanced Detectivity in Quantum Dot Photodetectors through P-Type Ink and ALD Integration Enabling HTL Thickness Control

Hong Gu Kang (Hanyang Univ., Korea), Daekwon Shin (Sungkyunkwan Univ., Korea), Seohee Park (Sungkyunkwan Univ. & KITECH, Korea), Ji Hyeon Woo, Min Seok Kim (Hanyang Univ., Korea), Hyeonjun Jeong (Sungkyunkwan Univ., Korea), Sohee Jeong (Sungkyunkwan Univ., & Sungkyunkwan Inst. of Energy Science and Tech., Korea), Jung Hoon Song (Mokpo Nat'l Univ., Korea), Ju Young Woo (Hanyang Univ. & KITECH, Korea), and Seong-Yong Cho (Hanyang Univ., Korea)

[P3-160]

Top-Emitting QLEDs with a Thin Stabilizing Layer to Prevent Ag Agglomeration

Jaehyung Park, Jaehwi Choi, Kangsuk Yun, Sunghyun Cho, Yedarm Yoon, and Jiwan Kim
(Kyonggi Univ., Korea)

[P3-161]

Mitigating Electrical Crosstalk in High-Resolution Quantum Dot Light-Emitting Diodes via Controlled Insulation Process

Eun A Kim (Hanyang Univ., Korea), Heesun Yang (Hongik Univ., Korea), Nuri Oh, and Seong-Yong Cho (Hanyang Univ., Korea)

[P3-162]

Mg-Doped NiO Hole Transport Layer in All-Inorganic Quantum Dots Light Emitting Diodes: ALD MgO Diffusion Barrier

Min Seok Kim (Hanyang Univ., Korea), Minsu Kim (Kyonggi Univ., Korea), and Seong-Yong Cho (Hanyang Univ., Korea)

[P3-163]

Synthesis of $\text{ClSe}_2(\text{Cu-In-Se}_2)$ Quantum Dots for IR optoelectronics

Seonghwa Hong, Eunhye Cho, Mahnmin Choi (Sungkyunkwan Univ., Korea), and Sohee Jeong (Sungkyunkwan Univ. & Sungkyunkwan Inst. of Energy Science and Tech., Korea)

[P3-164]

Large-Area Quantum Dot Light-Emitting Diodes with Enhanced Emission Uniformity via Polymer-ZnMgO Blended Electron Transport Layers

Jinpyo Jeong, Kyoungun Lee, Jaeyeop Lee, Yeyun Bae, Jiyeon Oh (Pusan Nat'l Univ., Korea), Kyunghoon Lee, Jiwoong Yang (DGIST, Korea), and Jeongkyun Roh (Pusan Nat'l Univ., Korea)

[P3-165]

Mitigating Oxidation-Induced Defects via Stepwise ZnSe Shelling in InP Quantum Dots

Jaehyeong Yoo, Sung-yoon Joe, and Jae-Hyeon Ko (Hallym Univ., Korea)

[P3-166]

Thiol-Halide Dual Passivation for Stable InP Quantum Dots in Display Applications

Sung-yoon Joe, Do-Hyeon Kim, Jae-Hyeong Yoo, and Jae-Hyeon Ko (Hallym Univ., Korea)

[P3-167]

Efficiency Increase by Thermal and Electrical Aging in Quantum Dot Light Emitting Diodes

Taehyun Kim and Jeong Hyun Kwon (Chungbuk Nat'l Univ., Korea)

[P3-168]

Cavity-Driven Optical Enhancement in InP-Based QD-LEDs Using Dielectric/Metal/Dielectric (DMD) Top Layers

Do-Hyeon Kim, Sung-yoon Joe, and Jae-Hyeon Ko (Hallym Univ., Korea)

[P3-169]

Fabrication of Multifunctional Blue Reflective Near-Infrared-Enhanced Films for Enhanced Efficiency in Quantum Dot Organic Light-Emitting Diodes

Minsoo Kyeong and Jeong Hyun Kwon (Chungbuk Nat'l Univ., Korea)

[P3-170]

A Study on the Characteristics of Quantum Dots Light-Emitting Diodes Using a Mixed Solvent for Hole Transport Layer

Heeun Kang, Dong Hyun Kim (Gyeongsang Nat'l Univ., Korea), Jeong Ha Hwang (Gyeongsang Nat'l Univ. & Sungkyunkwan Univ., Korea), Sinhui Min, Juwan Lee, Jina Park (Gyeongsang Nat'l Univ., Korea), Jaehoon Lim (Sungkyunkwan Univ., Korea), and Donggu Lee (Gyeongsang Nat'l Univ., Korea)

[P3-171]

Performance Improvement of Quantum Dot Light-Emitting Diodes Using Cross-Linked VNPB and TPFB as Hole Injection Layers

Juwan Lee (Gyeongsang Nat'l Univ., Korea), Jeong ha Hwang (Gyeongsang Nat'l Univ. & Sungkyunkwan Univ., Korea), Dong Hyun Kim, Sinhui Min, Heeun Kang, Jina Park (Gyeongsang Nat'l Univ., Korea), Jaehoon Lim (Sungkyunkwan Univ., Korea), and Donggu Lee (Gyeongsang Nat'l Univ., Korea)

[P3-172]

Low Turn-On Voltage in Perovskite LEDs via Phosphomolybdic Acid Interlayer in the Hole Transport Layer

Youngseo Cho (KRICT, Korea), Yurim Mo (Sungkyunkwan Univ., Korea), Seon Joo Lee, Sungho Choi, and Jaemin Lee (KRICT, Korea)

[P3-173]

High-Efficiency Red Perovskite Nanocrystal Light-Emitting Diodes Enabled by a Doped Electron Transporting Layer

Jinseok Lee (KRICT & Univ. of Science and Tech., Korea), Hyejin Na (KRICT, Korea), Seon Joo Lee (KRICT & Univ. of Science and Tech., Korea), Sungho Choi (KRICT, Korea), and Jaemin Lee (KRICT & Univ. of Science and Tech., Korea)

[P3-174]

High-Efficiency Tandem Quantum Dot Light-Emitting Diodes via All-Solution Processing

YeyunBae, Jaeyeop Lee, Chaegwang Lim, Kyoungun Lee, Jiyeon Oh, Jinpyo Jeong (Pusan Nat'l Univ., Korea), Hyeonjun Lee (Sungkyunkwan Univ., Korea), Jaehoon Lim (Sungkyunkwan Univ. & Sungkyunkwan Inst. of Energy Science and Tech., Korea), and Jeongkyun Roh (Pusan Nat'l Univ., Korea)

[P3-175]

Investigation of QD-HTL Blended Emissive Layers for Improved Charge Balance and Stability in QD-LEDs

Kyoungun Lee, Jinpyo Jeong, Jaeyeop Lee, Yeyun Bae, Bombi Kim (Pusan Nat'l Univ., Korea), Kyunghoon Lee, Jiwoong Yang (DGIST, Korea), Hyeonjun Lee (Sungkyunkwan Univ., Korea), Jaehoon Lim (Sungkyunkwan Univ. & Sungkyunkwan Inst. of Energy Science and Tech., Korea), and Jeongkyun Roh (Pusan Nat'l Univ., Korea)

[P3-176]

Scalable EHD Printing of Green Perovskite QD-LEDs with Ink and Interface Optimization

Hyewon Jin (KETI & Korea Univ., Korea), Byeongkwon Ju (Korea Univ., Korea), Jaemin Lee (KRICT, Korea), and Seon Joo Lee (KRICT, Korea)

[P3-177]

Synthesis and Characterization of New Arylamine Based Hole Transport Materials for Perovskite LED

Chan Bin Park, Young Seo Cho, Yurim Mo, Hyejin Na, Seon Joo Lee, Sungho Choi, and Jaemin Lee (KRICT, Korea)

[P3-178]

High-Content Quantum Dot Color Conversion Layers via EHD Printing

Youngji Lim (KETI & Korea Univ., Korea), Hyewon Jin (Korea Univ., Korea), Kyeonghoon Yeom (KETI & Hanyang Univ., Korea), Byeongkwon Ju (Korea Univ., Korea), Gang Yeol Yoo, Yeongbeom Lee, Kyoungwon Park (KETI, Korea), Soong Ju Oh (Korea Univ., Korea), and Chul Jong Han (KETI, Korea)

[P3-179]

Suppressing the Positive Aging Effect in Quantum Dot Light-Emitting Diodes via Cl-Doped ZnMgO Electron Transport Layers

Jaeyeop Lee, Yeyun Bae, Kyoungun Lee (Pusan Nat'l Univ., Korea), Byong Jae Kim, Hyeonjun Lee, Jaehoon Lim (Sungkyunkwan Univ., Korea), and Jeongkyun Roh (Pusan Nat'l Univ., Korea)

[P3-180]

TCAD Simulation for Quantum Dot Photodiode

Eunsoo Lim, Jiwon Lee, Jae-Hyeok Hwang, Doheon Lee, and Junghun Kim (POSTECH, Korea)

[P3-181]

Direct Patterning of Quantum Dots with Ring-Opening Polymerization of Surface Ligands for High-Resolution QLED

Jina Na, Seongchan Kim, Namyoung Gwak, Jaeyoung Seo, and Nuri Oh (Hanyang Univ., Korea)

[P3-182]

Studies on the Correlation of Quantum Dot Film Residue and Ligand Density

Yong Hyun Jo and Moon Sung Kang (Sogang Univ., Korea)

[P3-183]

Atomic Layer Deposited ZnO Passivation to Enhance the Photoresponse in CdSe/ZnS Quantum Dot-Coated ITZO Phototransistor

Ji Hyeon Woo, Siyun Kim, Seong-yong Cho, and Jaekyun Kim (Hanyang Univ., Korea)

[P3-184]

Enhanced Performance of Quantum Dot Light-Emitting Diodes through Solvent Substitution in ZnMgO Nanoparticles

Young-Jae Ko and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[P3-185]

High-Resolution Inkjet QD-LEDs Achieved via Interlayer Control with PhotoCrosslinkable TFB

Jonghyun Choi (Korea Univ. & KITECH, Korea), Byeong-Kwon Ju (Korea Univ., Korea), Youngwoong Kim, and Kwan Hyun Cho (KITECH, Korea)

[P3-186]

Chemically and Electronically Active Metal Ions on InAs Quantum Dots for Infrared Detectors

Seongchan Kim, Jaeyoung Seo, Jina Na, Namyoung Gwak, and Nuri Oh (Hanyang Univ., Korea)

[P3-187]

Comparative Study of Two Different Quasi-Type II Heterostructured Quantum Dots for Enhanced Electroluminescence

Namyoung Gwak, Seongchan Kim, Jaeyoung Seo, Jina Na, and Nuri Oh (Hanyang Univ., Korea)

[P3-188]

Colloidal Synthesis of P-Type Zn_3As_2 Nanocrystals

Seongchan Kim, Haesung Lee, Hakji Lee, Namyoung Gwak, and Nuri Oh (Hanyang Univ., Korea)

[P3-189]

Crosslinking-Assisted Indirect Photopatterning of Quantum Dots

Hyeokjun Kim (Sogang Univ., Korea), Hyobin Ham (UNIST, Korea), Chang Hyeok Lim (Sogang Univ., Korea), Jin Su Park, Hak June Lee (Sungkyunkwan Univ., Korea), Myeongjae Lee (UNIST, Korea), Jinho Keum (Sogang Univ., Korea), Jeong Woo Park (Sungkyunkwan Univ., Korea), Seongjae Lee (Seoul Nat'l Univ., Korea), Hajin Bhang, Seunghan Lee, Hyunwoo Jo, Yong Hyun Jo (Sogang Univ., Korea), Wan Ki Bae (Sungkyunkwan Univ., Korea), BongSoo Kim (UNIST, Korea), and Moon Sung Kang (Sogang Univ., Korea)

[P3-190]

Direct Photopatterning of Quantum Dots via Complete Green Process Enabled by Dual Ligand Exchange: Study of Ligand Anchoring Group Effect

Jinho Keum, Yongkuk Kang, Yong Hyun Jo, and Moon Sung Kang (Sogang Univ., Korea)

[P3-192]

Autonomous Synthesis of InP QDs via Bayesian Optimization

Dongyun Kim, Namyong Gwak, and Nuri Oh (Hanyang Univ., Korea)

[P3-193]

In(btsa)₃ Complex Enables Alloyed InGaP Quantum Dots for Light-Emitting Diodes

Calem Duah (KRICT & Univ. of Science and Tech., Korea), Hwanhui Yun (KRICT, Korea), Tae Su Kim (KRICT, Korea), Bo Keun Park (KRICT & Univ. of Science and Tech., Korea), Su Yeon Lee, Ji Yeon Ryu (KRICT, Korea), and Seon Joo Lee (KRICT & Univ. of Science and Tech., Korea)

[P3-195]

Improving Efficiency of Red QLED with Green and Blue Exciton Harvesting TADF Layers

Seung-Bae Lee, Jeong-Yeol Yoo, Yoon-Jeong Choi, and Byung-Doo Chin (Dankook Univ., Korea)

[P3-196]

High-Performance Quantum Dot Light-Emitting Diodes via Surface Engineering of Zinc Oxide Nanoparticles

Uhjin Kim, Byong Jae Kim, Woon Ho Jung, and Yong Woo Kwon, and Jaehoon Lim (Sungkyunkwan Univ., Korea)

[P3-197]

Interfacial Disorder Induced by Surface Instability in $\text{AgIn}_{1-x}\text{Ga}_x\text{S}_2/\text{AgGaS}_2$ Core/Shell Quantum Dots

Hyeonjun Lee, Seongkyung Park, Byongjae Kim, Woon Ho Jeong, Kang Hyun Lee, and Jaehoon Lim (Sungkyunkwan Univ., Korea)

[P3-198]

Enhanced the Characteristics of the Wide Viewing Angle of Quantum Dot Color Conversion Layer with Hybrid Microlens Array

Sang Youn Lee (KITECH & Korea Univ., Korea), Chun Sakong (ChemE Inc., Korea), Byeong-Kwon Ju (Korea Univ., Korea), and Kwan Hyun Cho (KITECH, Korea)

[P3-199]

Metal Chloride-Based Precursor Design for SWIR Active InAs Quantum Dots

Jaeyoung Seo, Seongchan Kim, Dongjoon Yeo, Jina Na, Namyoung Gwak, and Nuri Oh (Hanyang Univ., Korea)

[P3-200]

A Study on Display Evaluation Methods based on Content Reproduction Quality in Real-World Viewing Environments

Mincheol Kim, Sungjin Kim, Yongjune Kim, Dongwoo Kang, JoonYoung Yang, and SooYoung Yoon (LG Display Co., Ltd., Korea)

[P3-201]

Viewing Angle Reflection Analysis of Displays with New Pen Touch

Daeheung Lee, Jebeom Park, Dongryul Jung, Jaehyun Park, Jiseok Yang, Injue Kim, Joonyoung Yang, and SooyoungYoon (LG Display Co., Ltd., Korea)

[P3-202]

Application of Novel Emissive Technologies in Neuroscience and Cardiology: Towards Microscope-On-A-Chip Platforms

M. König, C. Moon, N. Pathak, J. Witt (Univ. of Cologne, Germany), J. F. Butscher (Univ. of Cologne, Germany & Univ. of St Andrews, UK), A. Mischok (Univ. of Cologne, Germany), L. Kurian (Goethe Univ. Frankfurt, Germany), M. Schubert (Univ. of Cologne, Germany), and M. C. Gather (Univ. of Cologne, Germany & Univ. of St Andrews, UK)

[P3-203]

Face-Conforming Surface-Lighting Micro-LED Mask for Skin Anti-Aging Treatment

Min Seo Kim, Jaehun An, and Keon Jae Lee (KAIST, Korea)

[P3-204]

A Stretchable Multimodal Sensor Platform Integrating EMG and Strain Detection for Bio-Interactive Wearable Interfaces

Sanghyun Bae, Hayun Kim, and Yongtaek Hong (Seoul Nat'l Univ., Korea)

[P3-205]

A Simulation Study on the Strain-Induced Crystallization of Thermoplastic Elastomer Blends

Jae Hyeon Lee, Hyungshick Park, and Bong June Sung (Sogang Univ., Korea)

[P3-206]

Stable Near-Infrared Emission of the $\text{FA}_{0.6}\text{Cs}_{0.4}\text{Pb}(\text{I}_{0.6}\text{Br}_{0.4})_3$ Films without and with the PEAI Additives

Anjali Chandel and Sheng Hsiung Chang (Nat'l Taiwan Ocean Univ. & Nat'l Central Univ., Taiwan)

[P3-207]

Graphene-Based Metasurfaces for Tunable Directional Thermal Emission

Chanhyung Park and Min Seok Jang (KAIST, Korea)

[P3-208]

Solvent-Compatible Sequential Stabilization of High-Ratio Chloride Perovskite for Enhanced Deep Blue LED Performance

Hyojun Kim and Jung-Yong Lee (KAIST, Korea)

[P3-209]

Resistive Random-Access Memory based on Plant Hormone for Intelligent Display Applications

Kunho Moon (Yonsei Univ., Korea), Byung Ha Kang (Cambridge, USA), Su Min Park, and Hyun Jae Kim (Yonsei Univ., Korea)

[P3-210]

Stretchable Display with CNC-Based Optical Diffuser for Enhanced Fill Factor and Visual Uniformity

Kyung Jun Lee, Hyeon Ho Shin, and Yei Hwan Jung (Hanyang Univ., Korea)

[P3-211]

A Study on the Epitaxial Growth of P-Type Oxide Semiconductors

Yeyeong Kim, Yumin Lim, Jihye Jeong, and Hyungkoun Cho (Sungkyunkwan Univ., Korea)

[P3-213]

Enhanced Resistive Switching and Synaptic Behavior in HfO_x -Based Memristor through Ion Implantation

Beom Soo Kim, Kunho Moon, and Hyun Jae Kim (Yonsei Univ., Korea)

[P3-214]

Thermal Stress-Induced Cu Behavior in TGV with and without Ti Interface Layer

Gwanghwan Kim, Taekyung Lee, and Yeonhee Kim (Hoseo Univ., Korea)

[P3-215]

Characterization of AlN Ceramics Subjected to Ion Implantation and Annealing

Ju Ho Park, Hak Jun Lee, Kang Kyu Na, Chae Yeon Kim, Cheol Hee Moon, and Yong Tack Kim (Hoseo Univ., Korea)

[P3-216]

Effect of Cu Ion Implantation Energy on Thermal Conductivity of Synthetic Graphite Sheets

Hak Jun Lee, Kang Kyu Na, Ju Ho Park, Chae Yeon Kim, Cheol Hee Moon, and Yong Tack Kim (Hoseo Univ., Korea)

[P3-217]

Thermal and Structural Property Evaluation of Si_3N_4 Ceramics via Cu Ion Implantation and Annealing

Kang Kyu Na, Ju Ho Park, Hak Jun Lee, Chae Yeon Kim, Cheol Hee Moon, and Yong Tack Kim (Hoseo Univ., Korea)

[P3-218]

Cellulose-Based Large Scale Flexible Pressure Sensor Array with Direct Writing-Assisted Patterning Method

Dong Keon Lee, Jinsu Yoon, Hyukju Go, and Yongtaek Hong (Seoul Nat'l Univ., Korea)

[P3-219]

Material Development of New Aluminum Alloys for Low-Resistivity Gate Interconnects

Hye-mi Son, Wan-ho Lee, Jin-soo Park, Sang-woong Lee, and Sang-ho Lee (ULVAC KOREA, Korea)

[P3-221]

The Influence of the Viscoelastic Coefficient of Liquid Crystal on the Performance of Phase Modulators

Vigneshwaran Swaminathan, Zhao-Yi Chen, Chris Mathew, Vaibhav Sharma, Valerii Vashchenko (Hong Kong Univ. of Science and Tech., Hong Kong), Zhenhua Feng, Hongjun Li (ZTE Corp., China), Ying Wang (ZTE Optoelectronics Technology Co., Ltd., China), and Abhishek. K. Srivastava (Hong Kong Univ. of Science and Tech., Hong Kong)

[P3-222]

Minimizing Flicker in Low-Power Liquid Crystal Displays via Verification of Flexoelectric Coefficient Difference in Positive Dielectric Liquid Crystals

Junho Jung (LG Display Co., Ltd. & Jeonbuk Nat'l Univ., Korea), HaYoung Jung, Gyuri Choi (Jeonbuk Nat'l Univ., Korea), Ki-Sun Kwon, Heui-Seok Jin (Merck Performance Materials Ltd., Korea), Dong-Jin Lee, Hoon Jeong, JeongKi Park (LG Display Co., Ltd., Korea), Seung Hee Lee, and MinSu Kim (Jeonbuk Nat'l Univ., Korea)

[P3-223]

Bifocal Nanoolloidal Lenses with Size and Performance Controllability Using Striped Electrodes

Sahul Hameed Syed Ali, Seung-Ho Hong, and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[P3-224]

Liquid Crystal Based All-Optical Diffractive Deep Neural Networks

Liu Liu (Hong Kong Univ. of Science and Tech., Hong Kong), Quanzhou Long (Shenzhen Univ., China), Fion Sze Yan Yeung, Man Chun Tseng (Hong Kong Univ. of Science and Tech., Hong Kong), and Wanlong Zhang (Hong Kong Univ. of Science and Tech., Hong Kong & Shenzhen Univ., China)

[P3-225]

Mesogen-Assisted Exfoliation of 2D MoS₂: Impact of Particle Size on Exfoliation Behavior

Jihee Han and Changyeon Lee (Chung-Ang Univ., Korea)

[P3-226]

Ultra-Fast Response Organic Vertical-Alignment LCoS

Ki-Beom Kim and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[P3-227]

Facile and Cost-Effective Fabrication of Nanoporous Double-Layer Antireflective Coatings with Polymer Sacrificial Layer and Hydrophobic Surface Modification

Gyu Wan Kim, Uoon Chul Baek, Seung Ryeol Song, Da Hye Sim, and Jung Tae Park (Yonsei Univ., Korea)

[P3-228]

Two-Dimensional Focus Modulation in Hole-Patterned Liquid Crystal Lens with Orthogonal Electrode Segmentation

Muhammad Ayub, Muhammad Shoaib, and Chi-Yen Huang (Nat'l Changhua Univ. of Education, Taiwan)

[P3-229]

Electric Field-Assisted Pretilt Angle Modulation in Rubrene-Doped Liquid Crystal During Capillary Filling Process

Asad Hussain, Rab Nawaz, Chi-Yen Huang (Nat'l Changhua Univ. of Education, Taiwan), and Che-ju Hsu (Nat'l United Univ., Taiwan)

[P3-230]

Analysis of Interfacial Carrier Trapping in QLEDs with ZnO and ZnMgO ETLs via Transient Electroluminescence

Tae-Gyu Lee and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[P3-231]

Solvothermal Synthesis of Near-UV/Violet Emitting Ti_3C_2 MXene Quantum Dots

Seungkyu Lee, Shahzaib Ali (Sungkyunkwan Univ., Korea), Kunsik An (Sejong Univ., Korea), Dae-Hyun Cho (Gyeongsang Nat'l Univ., Korea), and Doyoung Byun (Sungkyunkwan Univ., Korea)

[P3-233]

Development of InAs-Based Inverted Photodetectors for the SWIR Region

Hwiseon Jo, Youngsang Park, Sohee Jeong (Sungkyunkwan Univ., Korea)

[P3-234]

Surface Passivation and Interfacial Design of InAs Core/Shell Quantum Dots for High Photoluminescence Quantum Yield

Dasom Shin, Choi Sinil, Meeree Kim, Sohee Jeong (Sungkyunkwan Univ., Korea)

[P3-235]

Solvent-Induced Washout of TFB in QLEDs: A Comparative Study of Toluene and Octane

Tae-Hyeon Kim, Tae-Gyu Lee, and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[P3-236]

Voltage-Driven Color Tuning in Inverted 3-Stack Tandem QD-LEDs based on Charge Leakage Dynamics

Ha-Rim Jung, Young-Jae Ko, Hyo-Bin Kim, and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[P3-237]

Enhanced Photon Recycling in Perovskite Light-Emitting-Diodes through Optimized Electrode Design

Dayeon Jeong and Changsoon Cho (POSTECH, Korea)

[P3-238]

Amplified Spontaneous Emission and Distributed Feedback for Optimized Perovskite Laser Output

Hyeonjung Cho and Changsoon Cho (POSTECH, Korea)

[P3-239]

Optical Properties of Wrinkle-QD Composite Film

Cha Yeon Kim and Hung Suk Lee (Flexible Barrier Tech., Korea)

[P3-240]

Understanding the Role of Photon Recycling in Perovskite Light-Emitting Diodes to Improve Performance

Wanhee Lee and Changsoon Cho (POSTECH, Korea)

[P3-241]

Four-Dimensional (x, y, z, t) Photoluminescence Dynamics Revealing Efficient Vertical Charge Transport in Perovskite Solar Cells

Boseung Je and Changsoon Cho (POSTECH, Korea)

[P3-242]

Enhanced Charge Balance in Quantum Dot Light-Emitting Diodes Using Sputtered Li-Doped NiO and Self-Assembled Monolayers for Functional Electron Suppressing Layer

Nayoon Lee, Van-Khoe Vo, Hyo-Jun Lim, Heewon Jang, Jae-Jun Lee, Jung-A Lee, and Young-Woo Heo (Kyungpook Nat'l Univ., Korea)

[P3-243]

Highly Stable CsPbBr₃/PVC-g-PMMA Perovskite Nanocomposites for Improved Optical Performance

Song Seung Ryeol, Uoon Chul Baek, Gyuwan Kim, Da Hye Sim, and Jung Tae Park (Yonsei Univ., Korea)

[P3-244]

Solid-State Ligand Engineering of CdSe Quantum Dots for Enhanced Solvent Resistance and Charge Transport Modulation in Multilayer Displays

Yujin Choi and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[P3-245]

Tuning the Energy Level Alignment of NiO Hole Injection Layer by Self Assembled Monolayer for High Performance Quantum Dot Light Emitting Diodes

Hyo-Jun Lim, Nayoon Lee, Van-Khoe Vo, Jae-Jun Lee, Hee Won Jang, Jung-A Lee, Byoung-Seong Jeong, and Young-Woo Heo (Kyungpook Nat'l Univ., Korea)

[P3-246]

Role of Conjugated Structure of Crosslinkers in Direct Photo-Crosslinking

Donghyun Choi, Jung-Min Kim, and Jong-Soo Lee (DGIST, Korea)

[P3-247]

Optimization of Exciton Recombination and Charge Injection in QLEDs through Hybrid Polyacrylamide-ZnO Electron Transport Layers

Jae-Hyeon Ahn and Jong-Soo Lee (DGIST, Korea)

[P3-248]

Direct Optical Lithography of Quantum Dots Using Diazirine Photo-Crosslinker for QLED Applications

Namji Lee, Donghyun Choi, and Jong-Soo Lee (DGIST, Korea)

[P3-249]

CuInS₂/ZnS QD-Based Luminescent Solar Concentrators for Enhanced Indoor-Outdoor Energy Harvesting

Kangin Yeo (KERI & Pusan Nat'l Univ., Korea), Yeon Hyang Sim, and Hyekyoung Choi (KERI, Korea)