

IMiD 2024

The 24th International Meeting on Information Display
August 20-23, 2024 / ICC Jeju, Jeju, Korea

Session Title:	P2. Poster Session 2
Session Date:	August 22 (Thu.), 2024
Session Time:	14:00-15:30
Session Room:	1F, Event Hall & Lobby

[P2-001]

Improving the Recognition of the Align Mark Damaged by the Stripe Pattern of Automotive Display

Sang-Hoon Lim, Dongkeun Lee, Jinhyeong Kim, and Keunsoo Lee (Samsung Display Co., Ltd., Korea)

[P2-002]

Neural Network Modeling for OLED Display Image Sticking and Compensation Algorithm

Sang-ik Lee, Jun-kyu Lee, Jin-hwan Cho, Mi-yeong Joo, and Kang-hee Lee (Samsung Display Co., Ltd., Korea)

[P2-003]

Diffusion Models for Generation of Synthetic QD Backplane Defect Images

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

[P2-004]

Thermal Property Prediction and Application in OLED Materials: AI Model for Predicting Tg

Jihye Kim, Eunkyung Koh, Dongsun Yoo, Hoilim Kim, Hyeondeuk Kim, and Seungjin Baek (Samsung Display Co., Ltd., Korea)

[P2-005]

Molecular Dynamics Simulation of Giant Surface Potential in Vapor-Deposited Organic Semiconductors

Dongsun Yoo, Seran Kim, Junyoung Lee, Hoi-Lim Kim, Moran Ha, Hyosup Shin, Sung-Soo Bae, Hyeondeuk Kim, and Seung-In Baek (Samsung Display Co., Ltd., Korea)

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[P2-006]

Design of New High Refractive Index CPL Materials: Machine Learning Approach

Sanghee Yu, Dongsun Yoo, Gyeongheon Kim, Yongsub Shim, Gyubong Kim, Eunkyung Koh, Hoilim Kim, Hyeondeuk Kim, and Seungin Baek (Samsung Display Co., Ltd., Korea)

[P2-007]

A High Resolution Design Methodology for Pixel Layout Generator

Jungsuk Bang, Myunghun Lim, Taehyun Kim, Dongil Yoo, Yongwoo Lee, and Sang Hwan Cho (Samsung Display Co., Ltd., Korea)

[P2-008]

Improve Radiation Problems in X-ray Image via N Observations Photon Counting

Jingyu Kim (Korea Inst. of Medical Microrobotics & Hankyong Nat'l Univ., Korea), Seokmin Hong, Byungwoo Cho, Byungjeon Kang (Korea Inst. of Medical Microrobotics, Korea), and Myungjin Cho (Hankyong Nat'l Univ., Korea)

[P2-009]

Inverse Design of Multilayer Thin Films Using Three Different Configurations of Tandem Deep Neural Networks

Uijun Jung and Jungho Kim (Kyung Hee Univ., Korea)

[P2-010]

Multi-Objective Design Optimization of Jetting Equipment Using NSGA-2

Daein Kang, Jangwoo Kim, Daeyong Kim, Jaehee Seo, and Seungin Baek (Samsung Display Co., Ltd., Korea)

[P2-011]

Yield Prediction from Defect Information Using Machine Learning

Seokyeon Yang (Samsung Display Co., Ltd., Korea)

[P2-012]

Design Method of Gate Driver with AI Optimization for Narrow Bezel AMOLED Display

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

[P2-013]

Machine-Learning Based Mobility Prediction and Composition Optimization for Oxide Semiconductor

Young Mi Cho, Hyunyoung Choi, Hyunguk Cho, and Seungin Baek (Samsung Display Co., Ltd., Korea)

[P2-014]

Investigating One-to-Many-Mapping Issue in the Inverse Design of Multilayer Nanoparticle Configurations Using Conditional Variational Autoencoders

Hayeon Chae and Jungho Kim (Kyung Hee Univ., Korea)

[P2-015]

Simulation and Modeling of QED Deposition in Evaporating Colloidal Droplets

Hyung Uk Cho, Minjeong Ko, Richard James, Jahoon Koo, Seungin Baek, and Changhee Lee (Samsung Display Co., Ltd., Korea)

[P2-016]

ESD Hotspot Detection Methodology for Oxide TFT Based OLED Panels

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

[P2-017]

Angle-Multiplexed Metasurface Design with Broken Mirror Symmetry

Nayoung Kim (Samsung Display Co., Ltd. & KAIST, Korea), Myungjoon Kim, Joonkyo Jung, Taeyong Chang, Suwan Jeon, Jonghwa Shin (KAIST, Korea), and Seungin Baek (Samsung Display Co., Ltd., Korea)

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[P2-018]

Machine Learning Model for Dielectric Constant Prediction of Monomer

Hyungwoo Lee, Sanghee Yu, Dongsun Yoo, Jihye Kim, Eunkyung Koh, Seran Kim, Hoilim Kim, Hyeondeuk Kim, and Seungin Baek (Samsung Display Co., Ltd., Korea)

[P2-019]

1D Convolution Neural Network Inception Models for Scrubber Failures

Seki Park, Jungyu Park, Gimin Gwon, and Yechan An (Samsung Display Co., Ltd., Korea)

[P2-020]

Diagnosis of AI Robot Failure Using Disturbance Observer System

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

[P2-021]

Dual Fabry-Perot Interferometer and Its Design Method based on Deep Neural Networks

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

[P2-022]

Method of Applying Anomaly Detection to Mass Production Using an Anomaly Transformer

Gimin Gwon, Yunyoung Kyeong, and Seki Park (Samsung Display Co., Ltd., Korea)

[P2-023]

Enhanced Anomaly Detection and Classification in Industrial Robots Using CNN

Young Mo Ham (Samsung Display Co., Ltd., Korea)

[P2-024]

Eye-Tracking Based Wide Viewing High-Quality 3D Holographic Display Using Deep Neural Network

Tuvshinjargal Amgalan, Munkh-Uchral Erdenebat, Anar Khuderchuluun, Shariar Md. Imtiaz (Chungbuk Nat'l Univ., Korea), Jong-Rae Jung (Suwon Science College, Korea), Sang-Keun Gil (Univ. of Suwon, Korea), and Nam Kim (Chungbuk Nat'l Univ., Korea)

[P2-025]

Automatic Edge Inspection of Display Panels with Deep-Learning-Based Defect Classification

Kyungeun Kim, Un Yang, Haneol Kim, Jinyong Lee, and Donggon Yoo (Samsung Display Co., Ltd., Korea)

[P2-026]

YOLOv₃ Contingent Depth Map Generation from Light Field Data

F M Fahmid Hossain, Shariar Md Imtiaz, Md. Biddut Hossain, Hui-Ying Wu, Tuvshinjargal Amgalan, KiChul Kwon (Chungbuk Nat'l Univ., Korea), Kwon-Yeon Lee (Suncheon Nat'l Univ., Korea), and Nam Kim (Chungbuk Nat'l Univ., Korea)

[P2-027]

Enhancing Depth Estimation in Various Objects

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

[P2-028]

Challenges in Real-World Under-Display Camera Video Restoration

JiSoo Kim (Seoul Nat'l Univ., Korea), Kyusu Ahn (Seoul Nat'l Univ. & Samsung Display Co., Ltd., Korea), and Jaejin Lee (Seoul Nat'l Univ., Korea)

[P2-029]

Finite Element Analysis of Serpentine Interconnects Considering Nonlinear Properties of Metallic Electrodes

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

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[P2-030]

Training Stereo, Inference Mono: Human Avatar Generation with Robust View Consistency

Min-Ho Lee and Min-Gyu Park (KETI, Korea)

[P2-031]

Field of View Effect on Presence in Virtual Environments based on Electroencephalogram Measurement and Questionnaire Approaches

Zhenping Xia, Qishuai Han, Yujie Liu, Yueyuan Zhang, and Cheng Cheng (Suzhou Univ. of Science and Tech., China)

[P2-032]

Mirage: Floating Real Image Display Using Soapy Water Reflection Screen Which Enables to Make Images Invisible from Back Side

Kunio Sakamoto and Mitsuki Arakawa (Konan Univ., Japan)

[P2-033]

Micro Display MLA/CF Shift Automation Methodology

Byeonggeon Ko, Suah Oh, Gwangsoo Park, Yongwoo Lee, and Sanghwan Jo (Samsung Display Co., Ltd., Korea)

[P2-034]

Visual Importance-Based Assistive Technology for Blurry Vision People to Improving TV-Watching Experience

Jae Sung Park, Jongho Kim, Younghoon Jeong, and Youngseok Han (Samsung Electronics Co., Ltd., Korea)

[P2-035]

New Lenticular Lens Array Film Design for High Quality 3D Display

Jeong Woo Park, Young Sang Ha, Suyeon Sim, Beom-Shik Kim, Young-chan Kim, Jong Ho Hong, and Yongjo Kim (Samsung Display Co., Ltd., Korea)

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[P2-036]

Restoration of Speckled Hologram Reconstruction by Using Denoising Diffusion Probabilistic Model

Kyosik Min (Inha Univ., Korea) and Jae-Hyeung Park (Seoul Nat'l Univ., Korea)

[P2-037]

Improving the Transmittance and Resolution for Micro-Display with New Color Filter

Hyejeong Park, Byung Gwan Hyun, Wonjin Choi, Younghoon Kim, Taehyoung Kwak, Kwon-Shik Park, and Sooyoung Yoon (LG Display Co., Ltd., Korea)

[P2-038]

Depth Enhanced Holographic Super Multi-View Display based on Depth Segmentation

Yumeng Su, Yue Wang, Yujian Pang, Guoqiang Lv, Qibing Fen, and Zi Wang (Hefei Univ. of Tech., China)

[P2-039]

Design of Transmission-Type Diffraction Gratings for Enhanced Color Accuracy and Efficiency in AR Glasses

Yoon Heo, Seo In Han, Doo Kyu Lee, Hong Bi Joo, Abhishek Joshi, and Hyoung Won Baac (Sungkyunkwan Univ., Korea)

[P2-040]

Genetic-Algorithm-Based Exit Pupil Uniformity Improvement for Waveguide Display System

Yusong Guo, Jiahao Cai, Min Guo, Qibin Feng, Zi Wang, and Guoqiang Lv (Hefei Univ. of Tech., China)

[P2-041]

Multi-Objective Algorithm to Generate Compensated DOE in VHG-Based Waveguide Displays

Min Guo, Yusong Guo, Jiahao Cai, Qibin Feng, Zi Wang, and Guoqiang Lv (Hefei Univ. of Tech., China)

[P2-042]

Large-View-Volume Reflection-Type Cylindrical Volumetric Display

Hyeonbin Im, Hosung Jeon, Minwoo jung, and Joonku Hahn (Kyungpook Nat'l Univ., Korea)

[P2-043]

Computer Generated Volume Hologram for Full-Color Dynamic Holographic 3D Display

Chenxiao Wei and Juan Liu (Beijing Inst. of Tech., China)

[P2-044]

Compressive Light Field Quality Enhancement based on Stochastic Gradient Descent with Visual Perception

Qiyang Chen, Zhiyu Chen, Zi Wang, Qibin Feng, and Guoqiang Lv (Hefei Univ. of Tech., China)

[P2-045]

Extended Eyebox in Holographic Displays Adapted for Pupil Movement

Seongju Lee and Joonku Hahn (Kyungpook Nat'l Univ., Korea)

[P2-046]

Inverse Design through Auto-Differential Programming of Fourier Modal Method based on MATLAB

Youngsub Kim and Hwi Kim (Korea Univ., Korea)

[P2-047]

Gap Complementation in Aerial Image by Moving Slit-Shaped Retro-Reflector

Takeru Nishiyama, Shiro Suyama, and Hirotsugu Yamamoto (Utsunomiya Univ., Japan)

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[P2-048]

Aerial Image Display Using Retroreflective Mirror Array for Simultaneous Observation by Multiple Persons

Riku Suzuki (Hosei Univ., Japan), Takafumi Koike (Hosei Univ. & ReallImage Inc., Japan), and Yasushi Onishi (OPTCERAMICS Ltd., Japan)

[P2-049]

Two-Depth Floating Images by Using Retro-Reflector in Arc 3D Display

Hiroto Oishi, Shiro Suyama, and Hirotosugu Yamamoto (Utsunomiya Univ., Japan)

[P2-050]

Optimization of a Dot Projector

Jeongwoo Son and Hyuntaek Choi (Ansys Korea, Korea)

[P2-051]

Smooth Motion Parallax Using Camera Switching and Low-Cost Image Processing on Autostereoscopic 3D Display

Kaito Sasaki, Kyosuke Yanagida (Hosei Univ., Japan), and Takafumi Koike (Hosei Univ. & ReallImage Inc., Japan)

[P2-052]

Static and Dynamic View Morphing for XR Displays by Exploiting Temporal and Spatial Locality of Pixel Data

Wook Hong, Hokwon Kim, Bonggu Hwang, and Joon Goo Lee (RAONTECH Inc., Korea)

[P2-053]

Augmented Reality Head-Up Display via Polarization Volumetric Grating Waveguide

Jeongwoo Son, Jinhee Kim, and Hyuntaek Choi (Ansys Korea, Korea)

[P2-054]

High Quality OLED Display Manufacturing – A Perfect Task for High Power UV Lasers

Oliver Haupt (Coherent Corp., Germany)

[P2-055]

Optimization of Capping Layer Thickness in OLED Panels for Reduced Reflection

Horyun Chung and Eunjae Na (Samsung Display Co., Ltd., Korea)

[P2-056]

One-Way Observable Color Pixel Unit for Aerial Signage Using Dye-Doped Soapy Water Thin Film Layer Which Enables to Make Colors Invisible from Back Side

Kunio Sakamoto and Towa Maeda (Konan Univ., Japan)

[P2-057]

Improvement of Arcing Defect in Active Layer Dry Etch Process on G8.6 Large Glass

Fan Yang, Hejing Zhang, Zhen Liu, Jie Zhang, Yichuan Zhang, James Hsu, and Wade Chen (Chongqing HKC Optoelectronics Tech. Co., Ltd., China)

[P2-058]

Hot Implantation Technique for Wide Process Window in Amorphous-InGaZnO Sheet Resistance Reduction

Yuya Yamane, Keisuke Yasuta, Toshimasa Ui, Koichi Orihira, Shojiro Dohi, and Junichi Tatemichi (Nissin Ion Equipment Co., Ltd., Japan)

[P2-059]

Analysis and Improvement of Passivation Etching Undercut on Indium-Tin-Oxide Film

Junlong Fan, Chunyan Lin, Hejing Zhang, Zhen Liu, Yichuan Zhang, James Hsu, and Wade Chen (Chongqing HKC Optoelectronics Tech. Co., Ltd., China)

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[P2-060]

A Double-Layered Optically Clear Adhesive with Enhanced Resistances to Waviness and Impact Designed for Use in High-End Mobile Display Applications

Intae Son, Dasong Lee, Jueyoun Park, Won Seok Kim, and Kang Woo Lee (Samsung Display Co., Ltd., Korea)

[P2-061]

Fabrication of Polycrystalline Silicon Thin Films at 300°C Using Dehydrogenation by Argon Ion Implantation

Tomokazu Nagao, Yutaka Inouchi, Junichi Tatemichi (Nissin Ion Equipment Co., Ltd., Japan), Masahiko Hasumi, Tomo Ueno, and Toshiyuki Sameshima (Tokyo Univ. of Agriculture and Tech., Japan)

[P2-062]

Enhanced SiO₂ Thin Film Deposition Utilizing NO as a Substitute Gas for Environmental Sustainability in CVD

Yunhui Jang, Yeojin Jeong, Duy Phong Pham, and Junsin Yi (Sungkyunkwan Univ., Korea)

[P2-063]

Two Sub-Pixel Full Color Structure for Ultra-High-Resolution Display with AC Tandem Structure

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

[P2-064]

An Development of COP Based Chiller Operation Recommender System in Display Panel Manufacturing Cleanroom MAU for Energy Saving

Dong Hwi Park (Samsung Display Co., Ltd., Korea)

[P2-065]

Plasma Enhanced Atomic Layer Deposition for Robust SiO₂ Thin Film

Kyung joo Min, Choel min Jang, Saehong Kim, Youjong Lee, and Myung soo Huh (Samsung Display Co., Ltd., Korea)

[P2-066]

In-situ Impact Strength Evaluation with Reliability for Rollable Devices

Hyun-Jae Park, Hyojung Son, Jong-In Woo, Eunhye Yang (Kyungpook Nat'l Univ., Korea), Ki-Yong Lee (FlexiGO Inc., Korea), and Byoung-Seong Jeong (Kyungpook Nat'l Univ., Korea)

[P2-067]

Pull Force Optimization for Flattening Substrates in Rollable/Slidable Display Durability Tests

Byoung-Seong Jeong, Hyun-Jae Park (Kyungpook Nat'l Univ., Korea), Yeon Woo Jeong, and Ki-Yong Lee (FlexiGO Inc., Korea)

[P2-068]

Analysis of Laser Cutting Process for Automotive Display

Dongkeun Lee, KwangSeon Lee, Junhwan Park, Chanhee Lee, Kyungchul Shin, Yoojin Byeon, and Myeongseok Jeong (Samsung Display Co., Ltd., Korea)

[P2-069]

Application of Deep Reinforcement Learning on Photolithography Scheduler in Multi-Floor Display FAB

Eungjin Kim (Samsung Display Co., Ltd., Korea), Shuhui Qu (Samsung Electronics Co., Ltd., Korea), Woosub Kim (Samsung Display Co., Ltd., Korea), Kasra Yazdani, Janghwan Lee (Samsung Electronics Co., Ltd., Korea), and Jaewon Kim (Samsung Display Co., Ltd., Korea)

[P2-070]

Carrier Generation Rates by Boron and Oxygen Vacancy in Oxide Semiconductor

Keisuke Yasuta, Yuya Yamane, Toshimasa Ui, Koichi Orihira, Shojiro Dohi, and Junichi Tatemichi (Nissin Ion Equipment Co., Ltd., Japan)

[P2-071]

Thermal Stability improvement of α -IGZO Thin Film Transistor through Isotope Effect Engineering

Yeojin Jeong, Fucheng Wang, Yunhui Jang, Duy Phong Pham, and Junsin Yi (Sungkyunkwan Univ., Korea)

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[P2-072]

Effect of Dead Zones in Slot-Coated Organic Thin Films on Light Emission of OLEDs

Gieun Kim and Jongwoon Park (Korea Univ. of Tech. and Education, Korea)

[P2-073]

Multi-Cavity Slot-Die Head with a Broad Viscosity Spectrum for Fabrication of OLEDs

Gieun Kim and Jongwoon Park (Korea Univ. of Tech. and Education, Korea)

[P2-074]

Fabrication of Core-Shell Structured MAPbBr₃ Nanofibers with Enhanced Water Stability

Chanhyuk Choi, Giho Kang (Sungkyunkwan Univ., Korea), Dae-Hyun Cho (Gyeongsang Nat'l Univ., Korea), Doyoung Byun (Sungkyunkwan Univ., Korea)

[P2-075]

Investigation of High Performance IGTO TFTs at Different Sputtering Power Levels

Sohee Choi, Jidong Jin, and Jaekyun Kim (Hanyang Univ., Korea)

[P2-076]

Fabrication of IGTO TFTs on Ultra-Flexible Polyimide Substrates

Chaewon Jeong, Jidong Jin, and Jaekyun Kim (Hanyang Univ., Korea)

[P2-077]

Improvement of Characteristic in Indium Tin Zinc Oxide Thin-Film Transistors with Top Gate Structure by O₂ Plasma Treatment

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

[P2-078]

Architecture with Pixel on Driver for Corner Border Reduction of OLED Display

Juhoon Kang, Sang Hee Jang, Jieun Kim, Dahwan Lee, Sunyoung Jung, Gun Hee Kim, and Yongjo Kim (Samsung Display Co., Ltd., Korea)

[P2-079]

Investigation of Low-Reflective PA Structures for Improving Optical Property Efficiency of OLED Display Panel

Jin Seock Ma (Samsung Display Co., Ltd., Korea)

[P2-080]

Development of Novel UPC Plus™ Applied to Samsung Galaxy Z Fold 4: Improvements in Terms of Display Quality and Camera Related Properties

Donghyun Son, Sola Lee, Kyunghyun Choi, and Seongjun Lee (Samsung Display Co., Ltd., Korea)

[P2-081]

Backside Bonding for Extremely Narrow Bezel at the Bottom of Flexible Displays

Donghyun Lee, Daesoo Kim, Yeonwoong Kang, Minsang Koo, Donghwan Kong, Dongkyun Seo, and Yangho Jung (Samsung Display Co., Ltd., Korea)

[P2-082]

Performance Analysis of Pixelated Quantum Dot Light-Emitting Diodes by Inkjet Printing Process

Seong Woo Jeong (Gyeongsang Nat'l Univ., Korea), Jun Young Park (Hannam Univ., Korea), Dae Yun Kim (Pusan Nat'l Univ., Korea), Jae Bum Jeong, Collins Kiguye (Gyeongsang Nat'l Univ., Korea), Byeong Guk Jeong (Pusan Nat'l Univ., Korea), Dong Ryeol Whang (Hannam Univ., Korea), and Jun Young Kim (Gyeongsang Nat'l Univ., Korea)

[P2-084]

Laser Filamentation-Assisted Deep Etching for Micro-Tapered Hole Fabrication

Juil Hwang (Samsung Display Co., Ltd. & Hanyang Univ., Korea), Seunghyun Bang (Hanyang Univ., Korea), Ki Sang Lee, Woohyun Jung, Hyungsik Kim (Samsung Display Co., Ltd., Korea), and Kwang-Geol Lee (Hanyang Univ., Korea)

[P2-085]

Enhancing Optical Performance of Optoelectronic Devices by Nanostructure Coupled with PPFC Thin Film

Jun Hyuk Lee, Mac Kim, Minjun Cho, Jun Sik Oh, Cheol Hwan Kim, and Sang-Jin Lee (KRICT, Korea)

[P2-086]

Optimization for Laser Dicing of Thick Silicon Wafer

Doowon Lee, Jinhong Jeon, Junghoon Woo, Haesook Lee, and Jekil Ryu (Samsung Display Co., Ltd., Korea)

[P2-087]

Sputtered Nickel Oxides as Hole Transport Layers and Their Applications for Optoelectronic Devices

Jae Won Kim, Mac Kim, Minjun Cho, Jun Sik Oh, Cheol Hwan Kim, and Sang-Jin Lee (KRICT, Korea)

[P2-088]

Investigation of hydrogen Migration Mechanism in InGaZnO and Improvement of Electrical Properties through Specific Process

Hee Yeon Noh, Jung-Hwa Cha, June-Seo Kim, Myoung-Jae Lee, and Hyeon-Jun Lee (DGIST, Korea)

[P2-089]

Micro-LED Bonding and Repair on Display Backplanes by Simultaneous Transfer and Bonding (SITRAB) Technology

Jung Ho Shin, Jiho Joo, Gwang-Mun Choi, Chanmi Lee, Ki-seok Jang, Jin-hyuk Oh, Ji-Eun Jung, Ga-Eun Lee, Yong-Sung Eom, Solyee Lim, Seok-Hwan Moon, Ho-Gyeong Yun, and Kwang-Seong Choi (ETRI, Korea)

[P2-090]

Reactive Ion Etch Properties of Sapphire Substrate by Cl₂ Gas

Won Woo Lee, Joo Hyun Jeong, Jun Su Seol, Yun Hyeok Jeong, Young Woo Kim, Hye Yeon Shin (Gachon Univ., Korea), Ji Eun Han, In Hwan Kim, Yeon Ju Lee, Che Hoo Cho (Milaebo Co., Ltd., Korea), Yongmin Jeon, Sang Jik Kwon, and Eou-Sik Cho (Gachon Univ., Korea)

[P2-091]

Vacuum Drying Process according to Vacuum Pumping Speed for Printing a Uniform Emissive Layer of Inkjet OLED

Youngwook Noh (KITECH, Korea), Sang Youn Lee, Jonghyun Choi (KITECH & Korea Univ., Korea), and Kwan Hyun Cho (KITECH, Korea)

[P2-092]

Establishment of Cold Trap to Atomic Layer Deposition and Analysis on Composition of Aluminum Oxide By-Products

Dong Gyun Kim, Jun Su Seol, Joo Hyun Jeong, Yun Hyeok Jeong, Won Woo Lee, Yong Hyeok Seo, Seung Min Lee, Young Woo Kim, Hye Yeon Shin (Gachon Univ., Korea), Ji Eun Han, In Hwan Kim, Yeon Ju Lee, Che Hoo Cho (Milaebo Co., Ltd., Korea), Yongmin Jeon, Sang Jik Kwon, and Eou-Sik Cho (Gachon Univ., Korea)

[P2-093]

Research and Improvement of Altitude Storage Bubble in TFT-LCDs

Chuyun Zhou, Sudi Rao, Chengyi Huang, James Hsu, and Wade Chen (Chongqing HKC Optoelectronics Tech. Co., Ltd., China)

[P2-094]

Extreme Temperature Durable Hyperelastic Adhesive Forming Multiple Neutral Planes

Dahye Ahn, Kihoon Jeong, Dohun Kim, Taek-Soo Kim, and Sung Gap Im (KAIST, Korea)

[P2-095]

A Research of Droplet Velocity Control for Inkjet Printing for OLED Display

Katsuyuki Hirato, Wooree Ko, Cheongwan Min, JaiHyuk Choi, and MyungSoo Huh (Mechatronics Tech. Center Samsung Display Inc., Korea)

[P2-097]

Rapid Activation of Solution-Processed Aluminum Oxide Gate Dielectric Using Flash Lamp Annealing

Yeon-Wha Oh (Nat'l Nanofab Center & Chungnam Nat'l Univ., Korea), Hoon Kim, Lee-Mi Do, Kyu-Ha Bae (ETRI, Korea), Ga-Won Lee (Chungnam Nat'l Univ., Korea), Il-Suk Kang (Nat'l Nanofab Center, Korea), and Chan-mo Kang (ETRI, Korea)

[P2-098]

Design of Flexure Structure for a Large-Sized UVW Align Stage

Kim Yong-hyun, Myoung Seung-ho, Kim Kyu-bum, Yoon Joo-young, and Han Gyeong-hee (Samsung Display Co., Ltd., Korea)

[P2-099]

A Study on Improving the Transfer Durability of Low-Adhesive Using Fluorine

In-Seon Park, Chil-Won Lee, Suk-Min Hong (Dankook Univ., Korea), Won-Keun Baik, Kyung-Hyun Kim (YMK Co., Ltd., Korea), and Kwan-Young Han (Dankook Univ., Korea)

[P2-100]

Analyzing Parasitic Excitons via Operando Electrically Pumped Spectroscopy in Blue Phosphorescent Organic Light-Emitting Diodes

Chang Min Lee (Dongguk Univ., Korea), Hyun Jae Lee (Korea Univ. Korea), Tae Wook Kim, Yeong Beom Kim (Korea Univ. Korea), Insung Ha, P. Justin Jesuraj (Dongguk Univ., Korea), Chul Hoon Kim (Korea Univ. Korea), and Seung Yoon Ryu (Dongguk Univ., Korea)

[P2-101]

Vertical α -IGZO Thin-Film Transistor by Lift-Off Process

Se Yong Choi, Sang Hun Hwang, Byung Seol Hwang, Sang Ho Hwang, Seung Jae Moon, and Byung Seong Bae (Hoseo Univ., Korea)

[P2-102]

Efficient Organic-Light Emitting Diode Fabrication with Plane-Source Evaporating System

Seok Hyun Hong, Jeong-Yeol Yoo, Young Jun Lee (Dankook Univ., Korea), Chang Hoong Hwang (OLEDON Corp., Korea), and Byung Doo Chin (Dankook Univ., Korea)

[P2-103]

Improvement of TFE Encapsulation Film Characteristics by Improving CCP Equipment Performance

Ko Seok-Jin, Sim Ji-Hoon, Park Won-Woong, and Lee Seung-Jae (Samsung Display Co., Ltd., Korea)

[P2-104]

Surface Treatment Effects Prior to Gate Insulator Deposition on Top Gate IGZO Thin-Film Transistors

Seung Jun Choi, Sang Ho Hwang, Seung Jae Moon, and Byung Seong Bae (Hoseo Univ., Korea)

[P2-105]

Multiphase Solvent Formulation Guideline with Hansen Solubility Parameter and Jetting Profile Analysis for OLED Inkjet Printing

Ji Eun Kim, Hee Ju Kang, Yoon-Jeong Choi, and Byung Doo Chin (Dankook Univ., Korea)

[P2-106]

Fabrication of a Micro-Scale Hydrophobic/Hydrophilic Surface Patterns based on a Photolithography Technique

Sungyun Kim, Sehwan Park, Duhyoung Gong (Dong-A Univ., Korea), Bongjun Kim (Sookmyung women's Univ., Korea), and Hanul Moon (Dong-A Univ., Korea)

[P2-107]

Enhancing Adhesion of Underlying ITO in Oxide/Metal/Oxide Structures for Vertical Structured Devices

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Su-Hyeon Lee, Jae-In Yoo, Sung-Cheon Kang, and Jang-Kun Song (Sungkyunkwan Univ., Korea)

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All-Solution Processed Inverted Quantum-Dot Light Emitting Diodes with Double Hole-Transport Layer Using Same Solute

Jeong-Beom Kim, Su-Hyeon Lee, Hyo-Bin Kim, and Jang-Kun Song (Sungkyunkwan Univ., Korea)

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Improvement of Hole Conductivity of Hole Injection Layer Using Green Solvent 'Cyrene' for All Solution Processed QD-LEDs

Young-Jae Ko, Jung-Beom Kim, Hyo-Bin Kim, and Jang-Kun Song (Sungkyunkwan Univ., Korea)

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Optimizing the Device Performance of Top-Emitting Quantum Dot Light-Emitting Diodes

through Post-Annealing

Soojeong Yim and Jeonghun Kwak (Seoul Nat'l Univ., Korea)

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Synthesis of Colloidal InSb Quantum Dots and Their Application in 1500 nm Short Wavelength Infrared Photodetectors

Hyo-Jin Hwang, Ki-Cheol Kim, Hyo-Geun Kwon, and Sang-Wook Kim (Ajou Univ., Korea)

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Quantum Dot-Based Three-Stack Tandem Near-Infrared-to-Visible Optoelectric Upconversion Devices

Tae Hyun Kwon, Hyeon Bin Kim, Dong Gil Kwak (Sogang Univ., Korea), Donghyo Hahm (Sungkyunkwan Univ., Korea), Seongju Yoo, Bongsoo Kim (UNIST, Korea), Wan Ki Bae (Sungkyunkwan Univ., Korea), and Moon Sung Kang (Sogang Univ., Korea)

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Pure Metallic Properties and Remarkable Electrical Conductivity Increase from Semiconducting Colloidal Nanocrystals by Cation Exchange for Solution-Processable Optoelectronic Applications

Hyo-Geun Kwon and Sang-Wook Kim (Ajou Univ., Korea)

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Enhanced Stability and Highly Bright Electroluminescence of AgInZnS/CdS/ZnS Quantum Dots through Complete Isolation of Core and Shell via a CdS Interlayer

Ki-Cheol Kim, Hyo-Jin Hwang, Hyo-Geun Kwon, and Sang-Wook Kim (Ajou Univ., Korea)

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Porous Electrodes Fabricated by Colloidal Lithography and Their Application to Quantum Dot-Based Multifunctional Devices

Kyoungeun Lee (Pusan Nat'l Univ., Korea), Jiyeon Oh (Pusan Nat'l Univ. & KITECH, Korea), Hoyoung Cho, Moohyun Kim, Yeyun Bae (Pusan Nat'l Univ., Korea), Woon Ho Jung, Jaehoon Lim (Sungkyunkwan Univ., Korea), Hanchul Cho (KITECH, Korea), and Jeongkyun Roh (Pusan Nat'l Univ., Korea)

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Quantum Dot Polymer Composite for Improving the Stability of Cd-Free Quantum Dots

Keon Woo Kim (Pusan Nat'l Univ., Korea), Jaehwan Ko (Seoul Nat'l Univ., Korea), Jae Seung Lee (Sungkyunkwan Univ., Korea), Hyung-Jun Song (Seoul Nat'l Univ., Korea), Wan Ki Bae (Sungkyunkwan Univ., Korea), and Byeong Guk Jeong (Pusan Nat'l Univ., Korea)

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Synthesis of GaAs Nanocrystals for Visible Light Emitter

Dae Yun Kim, Yeong Uk Kim, and Byeong Guk Jeong (Pusan Nat'l Univ., Korea)

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Synthesis of Quantum Dot with High Efficiency and Narrow Emission Spectra

Yeong Uk Kim and Byeong Guk Jeong (Pusan Nat'l Univ., Korea)

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Enhanced Outcoupling of Quantum Dot Light-Emitting Diodes by Adhearable Microlens Arrays

Jiyoon Oh (Pusan Nat'l Univ. & KITECH, Korea), Kyoungun Lee, Jinpyo Jeong, Yeyun Bae, Chaegwang Lim, Jaeyeop Lee (Pusan Nat'l Univ., Korea), Woon Ho Jung, Jaehoon Lim (Sungkyunkwan Univ., Korea), Hanchul Cho (KITECH, Korea), and Jeongkyun Roh (Pusan Nat'l Univ., Korea)

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Co-Doping on NiO Hole Injection Layer by Sputtering Method in Green Quantum-Dot Light-Emitting Devices

Dang Thi Huong Thao, Hyo-Jun Lim, Hee-Won Jang, Na-Yoon Lee, Hye-Eun Lim, Da-Young Choi, Joon-Hyung Lee, Byoung-Seong Jeong, and Young-Woo Heo (Kyungpook Nat'l Univ., Korea)

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Enhanced Performance of Quantum Dot Light-Emitting Diodes with Tin Doped ZnO as Electron Transport Layers

Juwon Park, Jaeyeop Lee, Jeongkyun Roh, and Byeong Guk Jeong (Pusan Nat'l Univ., Korea)