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Topic Title:	02. Special Session II: AI for Display
Session Title:	01. OLED Device Simulator

[TBA] [Invited]

Display Simulation from Charge – Exciton Interactions to Light-Management

Beat Ruhstaller (Zurich Univ., Switzerland)

[01_02_1434] [Invited]

Optimization for Opto-Electrical Characterization of OLEDs

Richard James, Bowoon Kim, Hyunguk Cho, Seungin Baek, and Yongjo Kim (Samsung Display Co., Ltd., Korea)

[01_02_1501]

Optimization of OLED Device Using Meta-Heuristic Algorithm

Hyunguk Cho, Syunyoung Oh, Bowoon Kim, Seungin Baek, and Yongjo Kim (Samsung Display Co., Ltd., Korea)

[01_02_1552]

Contribution of the Near-Field Absorption to Evanescent Waves in Top-Emitting Organic Light-Emitting Diodes

Jiyong Kim and Jungho Kim (Kyung Hee Univ., Korea)

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Topic Title:	02. Special Session II: AI for Display
Session Title:	02. Advanced Sensor and Camera Image Analysis

[TBA] [Invited]

Deep-Learning-Generated Computer-Generated Holograms for Multi-Layered Holographic Display

Hwi Kim (Korea Univ., Korea)

[02_02_1499]

Improving Certification Rate of Fingerprint Sensors under Display Panel through Machine Learning

Sanggu Lee, Hyunjoo Hwang, Eunkyung Koh, Jaebum Cho, Jewon Yoo, Daewook Kim, Hyunjin Son, Sujin Choi, Hyunguk Cho, Seungin Baek, and Yongjo Kim (Samsung Display Co., Ltd., Korea)

[02_02_1339]

A Visual Based Auto-Alignment Algorithm for μled Mask-Panel Alignment Process

M, Kim, J, Wang, M, Kim, and S, Lee (Hanyang Univ., Korea)

[02_02_1478]

Prediction of Characteristics of Optical In-Display Fingerprint Sensor

Sangyun Lim, Hyunji Ha, Sanggu Lee, Daewook Kim, Jewon Yoo, Sujin Choi, Younho Han, and Seungin Baek (Samsung Display Co., Ltd., Korea)

[02_02_1366]

OLED Display Image Visualization based on All-Angle WAD Prediction Technology Using Machine Learning

Youngjun Yoo, Jongbeom Hong, Sujin Choi, Younho Han, Seungin Baek, Yunyoung Kyung, Changhun Lee, Kyoung-Hun Shin, Junghoon Jo, Gunshik Kim, Won-Hyouk Jang, and Yongjo Kim (Samsung Display Co., Ltd., Korea)

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Topic Title:	02. Special Session II: AI for Display
Session Title:	03. Advanced Performance of Panels

[03_02_1764] [Invited]

Optically-Invisible Antennas on Display for Adaptive Beamforming

Jinmyeong Heo (UNIST, Korea), Eunjin Sung, Bonghyun You (Samsung Display Co., Ltd., Korea), and Gangil Byun (UNIST, Korea)

[03_02_1753] [Invited]

Application of AI from Circuit Simulations Perspective: the Path to Large Scale Coverage Simulations

Xiaopeng Duan (Synopsys Inc, USA)

[03_02_1266]

Stress Profiler Quality Enhanced by Attention Ensemble

Kyongtea Park, Donghoon Jung, and Sangwan Choi (Samsung Display Co., Ltd., Korea)

[03_02_1635]

Deep Learning-Based HDR Generator Focused on Saturated Area Restoration

Ye In Park, So Yeon Jo, and Suk-Ju Kang (Sogang Univ., Korea)

[03_02_1705]

Improving Touch Accuracy in Surface Capacitive Touch Panel Using Deep-Learning

Byeong Hun An, Dong-Hwan Jeon, and Seung-Woo Lee (Kyung Hee Univ., Korea)

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Topic Title:	02. Special Session II: AI for Display
Session Title:	04. Advanced Materials for High Performance Display 1

[TBA] [Invited]

Advanced OLED Materials Design by De Novo Machine Learning Enabled by Atomic Scale Simulation

Mathew David Halls (Schrodinger Inc., USA)

[04_02_1775] [Invited]

Multiscale Simulations for OLED Material Development

Falk May, Charlotte Walter, Jochen Pfister, Jonas Kroeber, Armin Auch, and Philipp Stoessel (Merck KGaA, Germany)

[04_02_1236]

Towards a More Efficient and Durable Phosphorescence Device: A Molecular Design for a Blue Emitter Using Machine Learning

Dahye Cho, Sohae Kim, Sunwoo Kang, Eunkyung Koh, Iljoon Kang, Sun Mi Choi, Hoilim Kim, Sang Ho Jeon, Young Mi Cho, and Yongjo Kim (Samsung Display Co., Ltd., Korea)

[04_02_1462]

Predictions of Liquid Properties based on Molecular Simulations and Machine Learning

Hyuntae Lim, Gyehyun Park, Raejoon Kang, and YounJoon Jung (Seoul Nat'l Univ., Korea)

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Topic Title:	02. Special Session II: AI for Display
Session Title:	05. Advanced Materials for High Performance Display 2

[TBA] [Invited]

Mechanistic Kinetic Monte Carlo OLED Modeling based on Experimentally Validated Excitonic Interaction Parameters

Reinder Coehoorn (Eindhoven Univ. of Tech., The Netherlands)

[05_02_1746] [Invited]

Defects in Oxide Semiconductors and Their Impact on Performance of Transistors for Display

Youngho Kang (Incheon Nat'l Univ., Korea)

[05_02_1523]

Constrained Generative Adversarial Networks for Realistic Metamaterial Simulations

Arthur Baucour, Myungjoon Kim, Gun Park, Seungbum Hong, and Jonghwa Shin (KAIST, Korea)

[05_02_1242]

Experimental and Theoretical Comparison of InP-Based Quantum Dot Absorption Spectra Applying the Pseudo-Voigt Function

Deokho Jang, Jungho Kim (Kyung Hee Univ., Korea), Younho Han, Seungin Baek, Baek-Hee Lee, and Jun Woo Lee (Samsung Display Co., Ltd., Korea)

[05_02_1299]

Accurate Prediction of Luminescence Spectra of Realistic-Size Quantum Dots by Combining First-Principles and Machine Learning Methods

Sungwoo Kang (Seoul Nat'l Univ., Korea), Yongwook Kim, Eunjoo Jang (Samsung Advanced Inst. of Tech., Korea), Youngho Kang (Incheon Nat'l Univ., Korea), and Seungwu Han (Seoul Nat'l Univ., Korea)

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Topic Title:	02. Special Session II: AI for Display
Session Title:	06. Poster Session 2

[06_02_1163]

Deep Learning Based Inverse Design Model for Blue OLED Materials

Eunkyung Koh, Seran Kim, Dahye Cho, Sohae Kim, Iljoon Kang, Sunmi Choi, Saena Yoon, Hoilim Kim, Young Mi Cho, Seungin Baek, and Yongjo Kim (Samsung Display Co., Ltd., Korea)

[06_02_1267]

Image Enhancement Using Frequency Transform for Deep Learning Based Defect Detection

Mi-Sun Kang, Junghwan Kim, and Anthony S Son (Samsung Display Co., Ltd., Korea)

[06_02_1275]

Improved Optimization of Computer-Generated Holograms through Average Shift

Dongheon Yoo and Byoungho Lee (Seoul Nat'l Univ., Korea)

[06_02_1282]

A Study on Simulation and Machine Learning about Full Channel Model for High-Frequency Displays

Hyochul Lee, Jiwon Kim, Hyeondo Park, Insoo Wang, Yudeok Seo, Dongjin Seo, and Yongjo Kim (Samsung Display Co., Ltd., Korea)

[06_02_1305]

Deep Knowledge Transfer for Classification of Imbalanced Defect Image Datasets of Display Panels

Minui Hong, Jinseo Jeong, Jinsu Yoo (Seoul Nat'l Univ., Korea), Sunghoon Jo, Jaewon Kim (Samsung Display Co., Ltd., Korea), and Gunhee Kim (Seoul Nat'l Univ., Korea)

[06_02_1308]

Web based Display Simulation and Visualization Platform

Junghoon Jo, Jiyoo Park, Jihoon Shin, Eunji Kim, and Yongjo kim (Samsung Display Co., Ltd., Korea)

[06_02_1312]

A More Reliable Defect Detection and Performance Improvement Method for Panel Inspection based on Artificial Intelligence

Eui-Young Jeong, Jong-Myong Choi, Won-Hyouk Jang, Jae-Won Kim, Hyun-Chang Lim, Han-Aul Noh, and Hee-Yeon Kim (Samsung Display Co., Ltd., Korea)

[06_02_1314]

Time Series Display Property Forecasting with Long Short-Term Memory

Younggil Jin, ChangHun Lee, and Won-Hyouk Jang (Samsung Display Co., Ltd., Korea)

[06_02_1315]

Detecting and Measuring Unstructured Particles on Panel Surface Using Semantic Segmentation

Jiyoun Shin, Taeseok Jeong, Seokkwon Kim, and Yongjo Kim (Samsung Display Co., Ltd., Korea)

[06_02_1326]

Driving Optimization for Defect Detection

Yongbin Kim, Hyunyoung Choi, Gunwoo Yang, and Yongjo Kim (Samsung Display Co., Ltd., Korea)

[06_02_1332]

Improvement of Prediction Accuracy in Large PR Patterns Using Bake Model

Sunil Choi, Jong-Heon Park, Sung-Hwan Hong, Sung-Jun Kim, Hyung-Keon Cho, Seok-Beom You, Gun-Shik Kim, and Yong-Jo Kim (Samsung Display Co., Ltd., Korea)

[06_02_1343]

Acceleration of RC Extracting Simulation for Data Mining in Panel Circuit Design and Optimization

Il Hwa Jeong, Wan Seok Kang, Moosung Jung, and Sukin Yoon (Sanayi System Co., Korea)

[06_02_1345]

AI based TSP Sensitivity Real-Time Prediction Model

Keuk Jin Jeong, Young Gu Kang, Hyun Sung Park, Yudeok Seo, Dongjing Seo, and Yongjo Kim (Samsung Display Co., Ltd., Korea)

[06_02_1368]

Phase-Only Hologram Encoding Method via Iterative Fourier Transform Algorithm

Jaebum Cho, Jewon Yoo, Daewook Kim, Sang-Gu Lee, Hyunguk Cho, Seungin Baek, and Yongjo Kim (Samsung Display Co., Ltd., Korea)

[06_02_1399]

Detection of Defect Cause Analysis with Production Pathway

Kyu Seok Kim (KAIST, Korea), Eugene Kim, Dae Youn Cho (Samsung Display Co., Ltd., Korea), and Il-Chul Moon (KAIST, Korea)

[06_02_1410]

Deep Learning-Based Mura Detection With Atrous Spatial Pyramid Pooling

Jou Won Song, Namhyun Ahn, and Suk-Ju Kang (Sogang Univ., Korea)

[06_02_1438]

Development of a PSA Delamination Index on Flexible Displays for AI Prediction

Jisoo Kim, Kyoungah Lee, Hyoyul Yoon, Mingu Kim, Eunhye Kang, Taekyoung Hwang, and Dongjin Seo (Samsung Display Co., Ltd., Korea)

[06_02_1464]

Improvement of Display Panel Defect Detection based on Tree-Based Machine Learning Method

Jaewoong Kim, Wooyoung Jeong, Taejin Hwang, Kyungeun Park, and Jinpyo Jun (Samsung Display Co., Ltd., Korea)

[06_02_1490]

A Physics-Driven Frequency Domain Neural Network Model for Lithographic Analysis

Heehwan Lee, Minjong Hong, Min Kang, Hyun Sung Park, Kyusu Ahn, Youngwoo Lee, and Yongjo Kim (Samsung Display Co., Ltd., Korea)

[06_02_1556]

Simplified Full-Azimuth WAD Simulation for Sloped OLED Panel

Yong Sub Shim, Younho Han, Jong Beom Hong, Young Jun Yoo, and Reehyang Kim (Samsung Display Co., Ltd., Korea)

[06_02_2000]

Deep Depth Extraction of Multi-View Images for Holographic 3D Content

MinSung Yoon, Hyeonji Kim, and HwaSeon Yeo (ETRI, Korea)

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Topic Title:	03. Special Session III: Deformable Display Technologies: Flexible/Foldable/Stretchable
Session Title:	01. Flexible Display

[TBA] [Invited]

TBA

Chung Hyun Joong (Univ. of Alberta, USA)

[01_03_1778] [Invited]

Organic Semiconductor TFTs for Flexible & Stretchable Displays

Youngjun Yun, Hyunbum Kang, Yeongjun Lee, Yasutaka Kuzumoto, Suk Gyu Hahm, Joo-Young Kim, Jeong-Il Park, Gae Hwang Lee, Jong Won Chung, and Sunghan Kim (Samsung Electronics Co., Ltd., Korea)

[01_03_1658]

Simulation of Micro-Texture Functionality in Curved Display Backlight Units

Urs Aeberhard, Roman Hiestand (Fluxim AG, Switzerland), and Beat Ruhstaller (Fluxim AG, Switzerland and Zurich Univ. of Applied Sciences, Switzerland)

[01_03_1507]

Ultra-Thin Graphene Oxide Encapsulation Film via Electrostatic Layer-By-Layer Coating Process with Modifying Oxidation Method

Woo-Jin Lee, Chan-Soo Kim, and Yong-Seog Kim (Hongik Univ., Korea)

[01_03_1599]

Electrohydrodynamic Inkjet Printed Micro-Rigid-Island Arrays for Application to Stretchable Platform

Geonhee Kim, Jinsu Yoon, Seunghwan Lee, Daesik Kim, and Yongtaek Hong (Seoul Nat'l Univ., Korea)

[01_03_1351]

Air-Stable Stretchable Light-Emitting Devices without Using Encapsulations

Huanyu Zhou, Jinwoo Park, Yeongjun Lee, Jae-Man Park (Seoul Nat'l Univ., Korea), Jin-Hoon Kim (Yonsei Univ., Korea), Joo Sung Kim, Hyeon-Dong Lee, Seung Hyeon Jo (Seoul Nat'l Univ., Korea), Xue Cai, Lizhu Li, Xing Sheng (Tsinghua Univ., China), Hyung Joong Yun (KBSI, Korea), Jin-Woo Park (Yonsei Univ., Korea), Jeong-Yun Sun, and Tae-Woo Lee (Seoul Nat'l Univ., Korea)

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Topic Title:	03. Special Session III: Deformable Display Technologies: Flexible/Foldable/Stretchable
Session Title:	02. Human Interactive Display

[02_03_1729] [Invited]

Touchless Display User Interfaces based on Ultrasound

Paul Heremans (imec, Belgium and KULeuven, Belgium), Pieter Gijsenbergh (imec, Belgium), Yongbin Jeong, Christopher Chare (imec, Belgium and KULeuven, Belgium), Alexandre Halbach, Hang Gao, Margo Billen, Dominika Wysocka, Jeremy Segers, Kris Myny (imec, Belgium), Jan Genoe (imec, Belgium and KULeuven, Belgium), David Cheyns, Veronique Rochus, and Xavier Rottenberg (imec, Belgium)

[TBA] [Invited]

Soft and Self-Healable Wearable Light Sources

Benjamine Tee (Nat'l Univ. of Singapore, Singapore)

[02_03_1613]

High-Mobility ITGO Thin-Film Transistors on a Flexible PET Fiber for Wearing Display System

Chan Young Kim, Yong Ha Hwang, Seong Uk Kong, Sang-Hee Ko Park, and Kyung Cheol Choi (KAIST, Korea)

[02_03_1398]

Highly Stable and Robust on-Skin Electronics on Flexible Substrates for Humaninteractive Displays

Hyeong-Jun Choi, Byeong-Cheol Kang, and Tae-Jun Ha (Kwangwoon Univ., Korea)

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Topic Title:	03. Special Session III: Deformable Display Technologies: Flexible/Foldable/Stretchable
Session Title:	03. Flexible Device

[03_03_1758] [Invited]

Stress-Lowered Substrate Platform for Stretchable Organic Light Emitting Diodes (OLEDs)

Kyung Cheol Choi, Minwoo Nam, Young Hyun Son, and Myung Sub Lim (KAIST, Korea)

[03_03_1739] [Invited]

Solution Processed Silver Nanowire Electrodes and Application to Stretchable Electroluminescent Displays

Zheng Cui (Chinese Academy of Sciences, China), Yong Lin (Chinese Academy of Sciences, China and Fuzhou Univ., China), Wei Yuan (Chinese Academy of Sciences, China), and Fushan Li (Fuzhou Univ., China)

[03_03_1754] [Invited]

Utilization of Monolithic Liquid Metal Interconnects for Stretchable TFT Backplanes

Chan Woo Park, Jae Bon Koo, Ji-Young Oh, and Bock Soon Na (ETRI, Korea)

[03_03_1548]

Two-Dimensional MXene Flexible Electrode for High-Efficiency Light-Emitting Diodes

Soyeong Ahn (Seoul Nat'l Univ., Korea), Tae-Hee Han (Seoul Nat'l Univ., Korea and Hanyang Univ., Korea), Kathleen Maleski, Yury Gogotsi (Drexel Univ., USA), and Tae-Woo Lee (Seoul Nat'l Univ., Korea)

[03_03_1590]

The Photocatalyst Effect of rGO/ZnO De-Bonding Layer for Flexible Electronics

Won Bum Lee, Ki Lim Han, Tae Hyun Hong, Hwan Su Shin, Tae Hee Han, and Jin Seong park (Hanyang Univ., Korea)

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Topic Title:	03. Special Session III: Deformable Display Technologies: Flexible/Foldable/Stretchable
Session Title:	04. Poster Session 3

[04_03_1176]

Fabrication of Flexible Piezoelectric Energy Harvester Electrodes by Screen Printing Method

Chae-Song Kwak and Sun Hong Yoon (KETI, Korea)

[04_03_1293]

Fabrication of Stretchable Super Lattice Thin-Film Transistor at Low Temperature

Hongen Dong, Jeong Oh Kim, CheolHee ChoiHongwei XuMin Jae Kim, and Jae Kyeong Jeong (Hanyang Univ., Korea)

[04_03_1324]

A Study on Using Ultra-Thin Glass with Multilayer Structure for Foldable Display Cover Window

Myeong-Hun Ha, Byung-Min Park, and Kwan-Young Han (Dankook Univ., Korea)

[04_03_1374]

Flexible PMMA-ZrA Hybrid Gate Dielectric for Low Temperature, High Performance In-Ga-Sn-O Thin-Film Transistors

Jae Min Jung, Su Eon Lee, Bo Kyoung Kim, Wan Soo Son, Ho Chang Lee, and Jae Kyeong Jeong (Hanyang Univ., Korea)

[04_03_1384]

UV-Induced Patternable Hybrid Polydimethylsiloxane (PDMS) Passivation Layer for Stretchable Organic Electrochemical Transistor

Joohyuk Kang (KAIST, Korea), Wonryung Lee (KIST, Korea), Young-Woo Lim, Seungwan Kim, Injun Lee, and Byeong-Soo Bae (KAIST, Korea)

[04_03_1394]

Assessment of Fatigue Strain in Hard Coating on Colorless Polyimide Film under Folding via Digital Image Correlation Method

Yung Lee, Woosung Jo, Hyunhwan Lee, Taek-Soo Kim, and Byeong-Soo Bae (KAIST, Korea)

[04_03_1412]

Electrical and Optical Characteristics of Visible Parylene Films

Ye-Seul Lee, Ji-Hyeon Yoon, Akpeko Gasonoo, Seung-Hun Lee, Yoonseuk Choi, Jonghee Lee, and Jae-Hyun Lee (Hanbat Nat'l Univ., Korea)

[04_03_1574]

Low-Temperature Processable and Photo-Curable Polyimides as Gate Insulator for Flexible Display Backplane

Kyeongmin Ki and Taek Ahn (Kyungsung Univ., Korea)

[04_03_1606]

One-Component Sol-Type Siloxane-Based Hard Coating Resin for Anti-Scratch, Superhydrophobic Foldable Cover Window

Kang-Han Kim (KITECH, Korea and Hanyang Univ., Korea) and Yong-Cheol Jeong (KITECH, Korea)

[04_03_1607]

The Study of the Highly Flat Rigid/Soft/Rigid (RSR) Structured – the Flexible Cover Window for Flexible Display

Do-Gwan Kim, Kang Han Kim (KITECH, Korea and Hanyang Univ., Korea), and Yong-Cheol Jeong (KITECH, Korea)

[04_03_1608]

Flexible but Wear-Resistant and PH-Responsible Co-Citrate Elastomer for Wearable OLED Display Device

Yong-Cheol Jeong (KITECH, Korea)

[04_03_1696]

Anti-Dehydrate Glycerol-Water Hybrid Hydrogel for Strain Sensors

Changhun Seok, Hanul Moon, Haechang Lee, and Seunghyup Yoo (KAIST, Korea)

[04_03_2001]

Relieved Distortion Using Neutral Layer in Stretchable Display

Suan Lee, Jun hyuk Shin, and Su Seok Choi (POSTECH, Korea)

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Topic Title:	04. Special Session IV: AR/VR/MR
Session Title:	01. Special Session IV: AR/VR/MR

[01_04_1769] [Invited]

Holographic Display and Image Synthesis for VR/AR

Yifan (Evan) Peng, Suyeon Choi, Nitish Padmanaban, and Gordon Wetzstein (Stanford Univ., USA)

[01_04_1783] [Invited]

Increasing Vertical Field-of-View of Augmented Reality Images with Pin Mirror Technology

Soon-gi Park, Jeonghun Ha, and Jaehyeok Kim (LetinAR, Korea)

[01_04_1789] [Invited]

The Perspective of Deep Inertial Odometry as Alternative to Visual Odometry for Sensor Pose Tracking

Hideaki Uchiyam (Kyushu Univ., Japan)

[01_04_1500]

The High Aspect Ratio Microdisplay and The Thin Optical Component for Glass-like AR Devices

Chan-mo Kang, Jin-Wook Shin, Sukyung Choi, Byoung-Hwa Kwon, Hyunsu Cho, Nam Sung Cho, Jeong-Ik Lee (ETRI, Korea), Hyunkoo Lee (Sookmyung Women's Univ., Korea), Jeong Hwan Lee, Hokwon Kim, Ara Cho, Jeong Cho, Sang Hyun Park, Minseok Kim (RAONTECH, Korea), Soon-gi Park, Youngjoon Kim, Jeonghun Ha, Jaehyeok Kim (LetinAR, Korea), Sang Tae Kim, Jong Soo Lee, Seung No Lee, Yu Bin Im (Dongwoo Fine-Chem Co., Ltd., Korea), and Chun-Won Byun (ETRI, Korea)

[01_04_1521]

Fringe Field Effect of Ferroelectric Liquid Crystal Study Using Electrode Pattern for Virtual Reality and Augmented Reality

Zhibo Sun, Zhengnan Yuan, Hoi-Sing Kwok, and A.K. Srivastava (Hong Kong Univ. of Science and Tech., Hong Kong)

[01_04_1681]

Improved Optical See-Through Head-Mounted Display Using Transmittance Variable Display

Jihyung Kim, Jonghyeon Ka, and Wooksung Kim (POSTECH, Korea)

[01_04_1706]

Don't Block My Eyesight: The Text Position and Background Image Quality in Augmented Reality

Qinyue Chen, Juhee Kim, and Hyeon-Jeong Suk (KAIST, Korea)

[01_04_1570]

Optomotor Response of Medaka to an Omnidirectional Aquatic Display

Daiki Kudo, Erina Abe (Utsunomiya Univ., Japan), Masaki Yasugi (Utsunomiya Univ., Japan and ACCEL, Japan), and Hirotsugu Ymamoto (Utsunomiya Univ., Japan and ACCEL, Japan)

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Topic Title:	04. Special Session IV: AR/VR/MR
Session Title:	02. Poster Session 4

[02_04_1251]

VR & AR Feedback Soft 3D Motion Textile Actuator

SangUn Kim, SangJin Kim, and JooYong Kim (Soongsil Univ., Korea)

[02_04_1362]

Development for Lighter Tactile Realization Device in VR Devices by Using Shape Memory Alloy

Sang Jin Kim, Sang Un Kim, and JooYong Kim (SoongSil Univ., Korea)

[02_04_1617]

Development of See-Through Type Augmented Reality Optical System for Fluorescent Image-Guided Surgery

Sungjoon Kim and Kwanghoon Lee (KOPTI, Korea)

[02_04_1651]

Development of Self-Adjusting Optical System for Smart Glasses

H. Shim, S. Yoon, and D. Lee (KOPTI, Korea)

[02_04_2002]

Tracing Guide by Use of Aerial Image Formed on Mirror Surface

Akiho Kimura, Yoshiki Terashima, and Hirotsugu Yamamoto (Utsunomiya Univ., Japan)

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Topic Title:	05. Active-Matrix Devices
Session Title:	01. Flexible LTPS

[01_05_1179]

Improvement of Hot Carrier instability on Small-Dimension Polycrystalline TFTs in Flexible AMOLED Displays

Keunwoo Kim, Jaehwan Chu, Doona Kim, Sangsub Kim, Dokyeong Lee, Bummo Sung, Hyena Kwak, Yongsu Lee, Taewook Kang, Hyeyong Chu, and Jinoh Kwag (Samsung Display Co., Ltd., Korea)

[01_05_1186]

Improved Controllability of Double Gate Low-Temperature Polycrystalline-Silicon Thin-Film Transistors on Plastic Substrate

Jaeseob Lee, Yongsu Lee, Taewook Kang, Hyeyong Chu, and Jinoh Kwag (Samsung Display Co., Ltd., Korea)

[01_05_1583]

Issues and the Improvement to the Crystallization of a-Si Films for LTPS TFTs on Arbitrary Panels

Noguchi Takashi (Univ. of the Ryukyus, Japan and NIT, Japan), Okada Tatsuya (Univ. of the Ryukyus, Japan)

[01_05_1432]

TFT TEG Design and ESD Susceptibility during Nano-Probing

Kiju Im, T.-Y. Khim, Hyuncheol Hwang, Junehwan Kim, Hyojung Kim, Young Tae Choi, Yoonho Kim, Hyeokjae Kwon, and Jongwoo Park (Samsung Display Co., Ltd., Korea)

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Topic Title:	05. Active-Matrix Devices
Session Title:	02. High Performance Oxide TFT

[02_05_1726] [Invited]

High-Mobility Zn-Ba-Sn-O TFTs with Metal Capping Layers

Ji-Min Park (Chungnam Nat'l Univ., Korea), Ho-Hyun Nahm (KAIST, Korea), and Hyun-Suk Kim (Chungnam Nat'l Univ., Korea)

[02_05_1751] [Invited]

Development of High-Mobility Self-Aligned IGZTO-TFTs Utilizing Laser Irradiation Process

Hiroshi Tsuji, Mitsuru Nakata (NHK Science and Tech. Research Lab., Japan), Mototaka Ochi (Kobe Steel, Ltd., Japan) , Tatsuya Takei, Masashi Miyakawa (NHK Science and Tech. Research Lab., Japan), Kohei Nishiyama (Kobe Steel, Ltd., Japan), Yoshiki Nakajima, and Takahisa Shimizu (NHK Science and Tech. Research Lab., Japan)

[02_05_1239]

CuCrZr Ternary Alloy Electrode of NdIZO-TFT for High-Performance Flexible Display

Honglong Ning, Kuankuan Lu, Zhennan Zhu, Weijian Yuan, Qunjie Li, Bin Qiu, Rihui Yao, and Junbiao Peng (South China Univ. of Tech., China)

[02_05_1461]

High Quality and Reliability Characterization of IGZO Device for Competitive Display Performance

Junehwan Kim, Hyuncheol Hwang, Yoonho Kim, Hyeokjae Kwon, Hyojung Kim, Kiju Im, Taeyoung Khim, Youngtae Choi, and Jongwoo Park (Samsung Display Co., Ltd., Korea)

[02_05_1467]

Device Scalability of TFTs down to 1μm Channel Length

Su Hyun Kim, Sang Min Yu, Mingoo Kim, Kihwan Kim (Hanyang Univ., Korea), Joon Seok Park, Jun Hyung Lim (Samsung Display Co., Ltd., Korea), and Saeroonter Oh (Hanyang Univ., Korea)

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Topic Title:	05. Active-Matrix Devices
Session Title:	03. Stability Issues in Oxide TFT

[03_05_1737] [Invited]

Defects, Hydrogen, and Light-Induced Instability Mechanism in Amorphous Oxide Semiconductors

John Robertson (Cambridge Univ., UK)

[03_05_1292]

Effects of Hydrogen on Amorphous InGaZnO Thin-Film Transistors With Hydrogen Barrier Gate Insulator

KyoungRok Kim, Wan-ho Choi, Seokgoo Jeong, Hyun-Mo Lee, and Jin-Seong Park (Hanyang Univ., Korea)

[03_05_1618]

The Analysis of Anomalous Threshold Voltage Shifts in Oxide Semiconductor Thin-Film Transistors under Positive Gate Bias Stress

Chihun Sung (ETRI, Korea and Univ. of Science and Tech., Korea), Hee-Ok Kim (ETRI, Korea), Tae-Youb Kim (ETRI, Korea and Univ. of Science and Tech., Korea), and Sung Haeng Cho (ETRI, Korea)

[03_05_1660]

Effect of IGZO/ZnON Tandem Structure on Improving Bias Stress Stability

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

[03_05_1459]

Low-Temperature Crystallization Process for High-Quality Metal Oxide TFTs

Jae Cheol Shin (Chung-Ang Univ., Korea), Sung Woon Cho (Sunchon Nat'l Univ., Korea), and Sung Kyu Park (Chung-Ang Univ., Korea)

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Topic Title:	05. Active-Matrix Devices
Session Title:	04. Novel Oxide TFT

[04_05_1728] [Invited]

Advanced Oxide TFT Technology Using Spatial Atomic Layer Deposition

Auke Jisk Kronemeijer (TNO / Holst Centre, The Netherlands)

[TBA] [Invited]

Recent Progress of Atomic Layer Deposited Oxide Semiconductor Thin Film Transistors

Jin-Seong Park (Hanyang Univ., Korea)

[04_05_1280]

Enhancement of Electrical Characteristics of Amorphous Indium-Gallium-Zinc-Oxide Thin-Film Transistors by Inserting Carrier Induced Interlayer

Chan Sic Yoon, Hyung Tae Kim, Min Seong Kim, Hyukjoon Yoo, Jeong Woo Park, Dong Hyun Choi, Dongwoo Kim, and Hyun Jae Kim (Yonsei Univ., Korea)

[04_05_1433]

Nanoscale Surface Engineering of High-K ZrO2/SiO2 Gate Insulator for High Performance ITZO TFT via Plasma Enhanced Atomic Layer Deposition

Wan-ho Choi (Hanyang Univ., Korea), Woojin Jeon (Kyung Hee Univ., Korea), and Jin-Seong Park (Hanyang Univ., Korea)

[04_05_1713]

Room Temperature Fabrication of High-Performance Oxide Thin-Film Transistors Using Electron Confinement Effect

Dong Hyun Choi, Hyung Tae Kim, Jeong Woo Park, Jusung Chung, Hyukjoon Yoo, Min Seong Kim, and Hyun Jae Kim (Yonsei Univ., Korea)

Topic Title:	05. Active-Matrix Devices
Session Title:	05. Advanced Organic TFT

[TBA] [Invited]

Organic-Inorganic Hybrid Light Emitting Transistors

Jung Hwa Seo (Dong-A Univ., Korea)

[05_05_1752] [Invited]

Electrolyte-Gated, High-Performance Organic Nanoscale Transistors

J. Lenz (Ludwig-Maximilians Univ. Munich, Germany), R.T. Weitz (Ludwig-Maximilians Univ. Munich, Germany and Georg-August-University of Göttingen, Germany)

[05_11_1762] [Invited]

Recent Progress in Organic Semiconductors for Active Matrix Displays

Bernard Kippelen, Gunhee Kim, Xiaojia Jia, Xiaoqing Zhang, and Canek Fuentes-Hernandez (Georgia Inst. of Tech., USA)

[05_05_1352]

Modeling Optimization of Organic Multi-Valued Logic Devices

Chang-Hyun Kim (Samsung Display Co., Ltd., Korea), Ryoma Hayakawa, and Yutaka Wakayama (NIMS, Japan)

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Topic Title:	05. Active-Matrix Devices
Session Title:	06. Novel Material for TFTs

[TBA] [Invited]

TBA

Kenji Nomura (Univ. of California San Diego, USA)

[06_05_1743] [Invited]

New Approach to Improve the Performance of P-Channel Metal Oxide Transistors

Taekyu Kim, Sungyeon Yim, Hongwei Xu, and Jae Kyeng Jeong (Hanyang Univ., Korea)

[06_05_1541]

Molecule Charge Transfer Doping for p-Channel Solution-Processed Copper Oxide Transistors

Ao Liu, Huihui Zhu, and Yong-Young Noh (POSTECH, Korea)

[06_05_1233]

High-Performance and Reliable Lead-Free Layered-Perovskite Transistors

Huihui Zhu, Ao Liu, Kyu In Shim, Jisu Hong, Jeong Woo Han, and Yong-Young Noh (POSTECH, Korea)

[06_05_1319]

Stability of Perovskite Thin Film Transistors

Farjana Haque, Seoungbum Lim, and Mallory Mativenga (Kyung Hee Univ., Korea)

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Topic Title:	05. Active-Matrix Devices
Session Title:	07. TFT Applications beyond Display

[TBA] [Invited]

Scaling-Down Issues of Amorphous Oxide Thin-Film Transistors

Shengdong Zhang (Peking Univ., China)

[07_05_1757] [Invited]

Printed Organic Thin-Film Transistors with A Low Defect Density

Chen Jiang (Univ. of Cambridge, UK), and Arokia Nathan (Cambridge Touch Technologies, UK)

[07_05_1749] [Invited]

Optoelectronic Devices based on Organic Vertical Filed Effect Transistors

Huipeng Chen (Fuzhou Univ., China)

[07_05_1466]

Stress-Diffusive Mesa-Island Architectures for Mechanically Robust Metal-Oxide Thin-Film Transistors and Integrated Circuits

Kyung-Tae Kim, Jeong-Wan Jo, Seunghan Kang, Chan-Yong Park, and Sung Kyu Park (Chung-Ang Univ., Korea)

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Topic Title:	05. Active-Matrix Devices
Session Title:	08. Poster Session 5

[08_05_1274]

Turn-on Voltage Control Engineering of Thin-Film Diodes Using Oxygen Vacancy Controlled Amorphous In-Ga-Zn-O

Kyungho Kim (Seoul Nat'l Univ., Korea and Samsung Display Co., Ltd., Korea), Jun-Woo Park, Donggun Lee, and Youn Sang Kim (Seoul Nat'l Univ., Korea)

[08_05_1295]

Anti-Ambipolar Transistors based on Molybdenum Disulfide/Carbon Nanotube Heterojunctions Formed by Scalable Methods

Soryeong Jeong, Eunseo Joo, Youngju Oh (Sookmyung Women's Univ., Korea), Sangyeon Pak, Jungmoon Lim, and SeungNam Cha (Sungkyunkwan Univ., Korea), Bongjun Kim (Sookmyung Women's Univ., Korea)

[08_05_1333]

A Physical Model for Bias Stress Reliability of a-IGZO TFTs

Jinhyuk Jang, Miseon Seo, Joohee Lee, Ziyeon Yoon, Jooyeon Lee, Jaewoong Yoo, Sang Ho Jeon, Youngmi Cho, and Yongjo Kim (Samsung Display Co., Ltd., Korea)

[08_05_1338]

Contact Resistance Effects in OTFT-LCD Pixel Circuits

Seunghyuk Lee and Chang-Hyun Kim (Gachon Univ., Korea)

[08_05_1387]

IR Sensitivity Enhancement of Ultrathin MoS2 Photo-Transistors Using Siloxane Encapuslated Upconversion Nanoparticle Passivation

Injun Lee, Minsoo Kang, Kibum Kang (KAIST, Korea), Wonryung Lee (KIST, Korea), and Byeong-Soo Bae (KAIST, Korea)

[08_05_1396]

Atomic Layer Deposition Processed Fibertronic Pressure Sensor with Metal-Insulator-Oxide Semiconductor Diode

Joo Hyung Kim, Hye-In Yeom, and Sang-Hee Ko Park (KAIST. Korea)

[08_05_1435]

Degradation Analysis under PBTS Stability of a-IGZO TFTs Dependence on Partial Oxygen Pressure

Minjun Song and Byoungdeog Choi (Sungkyunkwan Univ., Korea)

[08_05_1437]

Photo-Induced Drain Current Variation of InZnO-Based Thin Film Transistors under Illumination Stress

Sangmin Lee and Byoungdeog Choi (Sungkyunkwan Univ., Korea)

[08_05_1440]

Highly Stable High Mobility Oxide TFT by Optimizing Hydrogen Incorporation through PE-ALD and Thermal-ALD for Gate Insulator

Jong Beom Ko, Seong-In Cho, Seung-Hee Lee, and Sang-Hee Ko Park (KAIST, Korea)

[08_05_1468]

Capacitance-Voltage Analysis of Solution-Processed Amorphous InGaZnO Films depending on Composition Ratio of Gallium

Bohyeon Jeon and Byoungdeog Choi (Sungkyunkwan Univ., Korea)

[08_05_1503]

Photothermally Cross-Linked Oxozirconium Cluster as an Organic-Inorganic Hybrid Dielectric Material

Ga-Hye Kim (Sungkyunkwan Univ., Korea), Do Jeon Kim (Chung-Ang Univ., Korea), and Myung-Gil Kim (Sungkyunkwan Univ., Korea)

[08_05_1508]

Ferroelectric HfZrO Film Enabling Non-Volatile Memory Cell in the Amorphous Indium Gallium Zinc Oxide Semiconductor

Ju Hwi Park, Tai kyu Kim, Tae woong Moon, Gwang bok Kim, Hyeong jin Park, and Jae Kyeong Jeong (Hanyang Univ., Korea)

[08_05_1524]

Effect of Gate Length on Devices in FinFET Structures

Ziyang Cui, Dongxu Xin, Jinsu Park, Jaemin Kim, Khushabu Agrawal, and Junsin Yi (Sungkunkwan Univ., Korea)

[08_05_1526]

An OLED Pixel Circuit to Reduce Leakage Current Using CMOS Technology

Eun Kyo Jung1, Jongsu Oh, Jungwoo Lee, Yong-Hoo Hong (Sungkyunkwan Univ., Korea), KeeChan Park (Konkuk Univ., Korea), Jae-Hong Jeon (Korea Aerospace Univ., Korea), Soo-Yeon Lee (Seoul Nat'l Univ., Korea), and Yong-Sang Kim (Sungkyunkwan Univ., Korea)

[08_05_1530]

Optimization of Device Charaacteristics by Deposition Sputtering Deposition

Dongxu Xin, Ziyang Cui, Jinsu Park, Jaemin Kim, Khushabu Agrawal, and Junsin Yi (Sungkunkwan Univ., Korea)

[08_05_1533]

Bottom Gate Oxide TFT for Low Operation Voltage

Eun Seong Yu, Seok Jun Kang, Jae Geun Woo, In Hye Kang, and Byung Seong Bae (Hoseo Univ., Korea)

[08_05_1535]

Threshold Voltage Shift in a-InGaZnO TFTs with Various Gate Dielectrics under PBIS

Hyojung Kim (Samsung Display Co., Ltd., Korea and Sungkyunkwan Univ., Korea), Hyuncheol Hwang, Jongwoo Park (Samsung Display Co., Ltd., Korea), Jangkun Song, and Byoungdeog Choi (Sungkyunkwan Univ., Korea)

[08_05_1544]

All-Solution Processed Organic Nonvolatile Memory Thin-Film Transistor Fabricated with Reverse Offset Printing

Woojo Kim (POSTECH, Korea), Yasunori Takeda (Yamagata Univ., Japan), Jimin Kwon (POSTECH, Korea), Shizuo Tokito (Yamagata Univ., Japan), and Sungjune Jung (POSTECH, Korea)

[08_05_1572]

Development of Defect Prediction Method of Polycrystalline Silicon TFTs with Realistic Grain Boundary Model

Kihwan Kim (Samsung Display Co., Ltd., Korea and Sungkyunkwan Univ., Korea) and Byoungdeog Choi (Samsung Display Co., Ltd., Korea)

[08_05_1575]

Perfluorocyclobutane Containing Crosslinked Poly(4-vinylphenol) Gate Dielectric for Hysteresis Free Thin Film Transistor

Taek Ahn (Kyungsung Univ., Korea)

[08_05_1589]

Photolithography-Free Fabrication of a-IGZO Thin Film Transistor with Interconnecting Metal Lines

Sang Eon Jeon, Jae Wan Cho, and Sung Min Cho (Sungkyunkwan Univ., Korea)

[08_05_1610]

Metal Induced Grain Boundary Segregation of Microcrystalline Silicon

Jeong Hyun Yoon, Young-Woong Song (Yonsei Univ., Korea and Yonsei Inst. of Convergence Tech., Korea), Myung Soo Hu, Dong Kyun Ko (Samsung Display Co., Ltd., Korea), and Jang-Yeon Kwon (Yonsei Univ., Korea and Yonsei Inst. of Convergence Tech., Korea)

[08_05_1620]

Analysis of a-IGZO TFT Characteristics according to Pulse Duty Ratio Modulation of Pulsed-RF and Pulsed-DC Sputtering

Jaemin, Eun-Cheol Cho, and Junsin Yi (Sungkyunkwan Univ., Korea)

[08_05_1650]

Electrical Properties of Low-Temperature Top Gate InGaSnO Thin-Film Transistors with Al_2O_3 Gate Insulator with Different Plasma Power of Atomic Layer Deposition

Hyeong Wook Kim, Changyong Oh, Hyunjae Jang, and Bo Sung Kim (Korea Univ., Korea)

[08_05_1657]

Electrical Properties of P3HT:CdSe/ZnS Quantum Dot Composite Thin-Film Transistor under Light Irradiation

Hyunji Shin (Hongik Univ., Korea), Jaehoon Park (Hallym Univ., Korea), and Jong Sun Choi (Hongik Univ., Korea)

[08_05_1673]

Gate Driver Circuit for Depletion Mode a-IGZO TFTs Using Dual Pull-Down Structure

Yong-Hoo Hong, Jongsu Oh, Eun Kyo Jung, Jungwoo Lee, Ju-young Choi (Sungkyunkwan Univ., Korea), KeeChan Park (Konkuk Univ., Korea), Jae-Hong Jeon (Korea Aerospace Univ., Korea), Soo-Yeon Lee (Seoul Nat'l Univ., Korea) and Yong-Sang Kim (Sungkyunkwan Univ., Korea)

[08_05_1676]

Effects of Annealing on Electrical Properties of In-Ga-Sn-O Thin Films

Changyong Oh, Hyunjae Jang, Hyeong Wook Kim, and Bo Sung Kim (Korea Univ., Korea)

[08_05_1697]

Organic Phototransistor with Hybrid Channel Layers for High Responsivity

Dongho Choi, Hanul Moon, Haechang Lee, and Seunghyup Yoo (KAIST, Korea)

[08_05_2003]

Enhanced Electrical Characteristics of Low-Temperature Processed Amorphous In-Ga-Zn-O Thin-Film Transistors with Y Doped Channel Layer

Min Seong Kim (Yonsei Univ., Korea), Beom Joon Kim (Palos Verdes High School, USA), Wei Qin, Sujin Jung, and Hyun Jae Kim (Yonsei Univ., Korea)

[08_05_2004]

Numerical Study for HUMP Reduction in LTPS TFTs Using Taper-Regional Doping Process

Ki Woo Kim, Heesoo Lee, and Hyun Jae Kim (Yonsei Univ., Korea)

[08_05_2005]

The Effect of Oxygen Partial Pressure and RF Power on Electrical Properties of Amorphous Oxide/Insulator Coupled Unipolar Selector

Tae-Kwon Lee and Duck-Kyun Choi (Hanyang Univ., Korea)

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Topic Title:	06. Applied Vision / Human Factors
Session Title:	01. Applied Vision and Human Factors I

[01_06_1740] [Invited]

Pixelated Automotive Interior Lighting: Measurements vs. Perceived Quality

Karlheinz Blankenbach (Pforzheim Univ., Germany) and Robert Isele (BMW AG, Germany)

[01_06_1545] [Invited]

Perceptual Effect for High Resolution Displays

DaEun Park, YoonJung Kim, and YungKyung Park (Ewha Womans Univ., Korea)

[01_06_1330]

Analysis of the Perceptual Resolution of Pentile Type AMOLED Display

Gunshik Kim (Samsung Display Co., Ltd., Korea) and Junsik Oh (Kangnam Univ., Korea)

[01_06_1451]

Novel Research for Finding the Halo Edge in Mini-LED Display

Jiaxin Li, Hui Liu, and Lili Jia (Beingjing BOE Optoelectronics Tech. Co., Ltd., China)

[01_06_1585]

Exploring Legibility and Glare Factors for Automotive Displays Exterior

Joohee Jun, Yoonjung Kim, DaEun Park, JinYoung Kim, YungKyung Park (Ewha Womans Univ., Korea), Hakbong Kim, Hansub Lee, Donggyun Hong (SL Pyeongchon R&D Center, Korea)

Topic Title:	06. Applied Vision / Human Factors
Session Title:	02. Applied Vision and Human Factors II

[02_06_1771] [Invited]

Reassessing Colour Capability Metrics

Johan Bergquist (Consultant, Japan)

[02_06_1546] [Invited]

A Study of Perceptual Color Difference on Whitish Colors

Joon Huh, Mintak Lee, Sunyoung Park, and Youngnam Yun (Samsung Display Co., Ltd., Korea)

[02_06_1445]

Investigation of Hyperspectral Imaging for Color Characterization of Electronic Displays

Sameera Silva, Taekmin Kim, and Il-ho Kim (LMS Corporation, Korea)

[02_06_1538]

Dependence of Brightness Sensitivity on Gaze Point

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

[02_06_1489]

Color Appearance for Large MicroLED Displays

Joohee Jun, Daeun Park, JinYoung Kim, and YungKyung Park (Ewha Womans Univ., Korea)

Topic Title:	06. Applied Vision / Human Factors
Session Title:	03. Applied Vision and Human Factors III

[03_06_1579] [Invited]

Measurement Methods for TV Audio Systems

Jang-Un Kwon and Jeong Man Lee (LG Display Co., Ltd., Korea)

[03_06_1766] [Invited]

Perceptual Driving Technologies

Seung-Woo Lee (Kyung Hee Univ., Korea)

[03_06_1675]

Concept and Numerical Modeling for Virtual Acceleration Sense on Vestibular Organ Using Focused Ultrasound

Sion Cha, Junseok Ma, and Wooksung Kim (POSTECH, Korea)

[03_06_1686]

Propose of Pseudo 3D Display by Using Perspective Effect and Perceived Depth Change by Observation Angles

Toyotaka Tamura, Haruki Mizushina, and Shiro Suyama (Tokushima Univ., Japan)

[03_06_1672]

Perceived Depth Manipulation of Floating Images by Using Sticking Effect to Real Objects with Various Viewing Distances

Ryo Kiyohara, Shiro Suyama, and Haruki Mizushina (Tokushima Univ., Japan)

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Topic Title:	06. Applied Vision / Human Factors
Session Title:	04. Poster Session 6

[04_06_1165]

Color-Changeable Unidirectional Window Display which Enables to Make Images Invisible from Back Side Using Dual Polypropylene Film Layers

Kunio Sakamoto and Ryo Takahashi (Konan Univ., Japan)

[04_06_1169]

Non-Electrical Image Switching See-Through Glass Window Display which Enables to Make Invisible Using Polarized Light Control Technology

Kunio Sakamoto and Tamon Fukuhara (Konan Univ., Japan)

[04_06_1198]

Comparison of Scanning Direction in Subjective Super-Resolution LED Display

Shotaro Nagare, Kojiro Matsusita (Utsunomiya Univ., Japan), Akinori Tsuji (Tokushima Univ., Japan), Toyotaro Tokimoto (DaoApp Technology Co., Ltd., Taiwan), and Hirotsugu Yamamoto (Utsunomiya Univ., Japan)

[04_06_1256]

Development of Guidelines for Proper Brightness of Car Cluster Screens according to Roadway Luminous Environment

Daeseon Lee (Hyundai Motor, Korea), In-tae Kim, Kyungho Shin, and Yu-Sin Kim (KOPTI, Korea)

[04_06_1258]

A study on Classification of Panel-Defect Employing Deep Learning

Daecheol Lim and Sunghoon Kim (LG Electronics Co., Ltd., Korea)

[04_06_1359]

Brightness Perception of Augmented Reality(AR) Images

Young Jun Seo, Hyosun Kim, Yongwoo Yi, Youra Kim, Byeonghwa Choi, Sung-chan Jo (Samsung Display Co., Ltd., Korea)

[04_06_1360]

Color Band Assessment

Hyungsuk Hwang, Soomi Lee, and Sangho Kim (Samsung Display Co., Ltd., Korea)

[04_06_1372]

Research for Quantifying Affective Evaluation Method of Automotive Display

First Nuri Jeon and Cheol-min Park (Hyundai Motor, Korea)

[04_06_1381]

Investigation on Perceived Color and Luminance Difference in Variation Refresh Rate

Aree Song, Eunjung Lee, Wooyoung Cheon, Byeonghwa Choi, and Sung-chan Jo (Samsung Display Co., Ltd., Korea)

[04_06_1436]

A Study on Metamerism Failure for Wide Color Gamut Displays based on Their Spectrum Distribution

Eunjung Lee, Young-jun Seo, Yongwoo Yi, Unbyoll Ko, Sungkook Park, Byeonghwa Choi, and Sung-chan Jo (Samsung Display Co., Ltd., Korea)

[04_06_1506]

Visual Searching Efficiency with Extended Field of View

DaEun Park, MinJung Seo, ChoHee Won, YeWon Jeon and YungKyung Park (Ewha Womans Univ., Korea)

[04_06_1678]

Design of Foot Parameter Measurement System

Jeong-rok Yun, Un Yong Kim (Chonnam Nat'l Univ., Korea), Hoemin Kim, and Sungkuk Chun (KOPTI, Korea)

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Topic Title:	07. Display Electronics and Systems
Session Title:	01. Advanced Driving Technology

[01_07_1684]

A New Decoder-Type Gate Driver Circuit for High Resolution

Jae-Hee Jo, Sooji Nam, Sujung Kim, Chun-Won Byun, and Seung-Woo Lee (ETRI, Korea)

[01_07_1222]

Shift Register Circuit based on Coplanar a-InGaZnO Thin Film Transistors with Photo-Patterned Ionic-Polymer Gate Dielectric

Yongchan Kim, Changhyeon Cho (Soongsil Univ., Korea), Hanbin Choi, Do Hwan Kim (Hanyang Univ., Korea), and Hojin Lee (Soongsil Univ., Korea)

[01_07_1522]

Video Data Compression for a Field Sequential Color Display

Wook Hong, Hokwon Kim, and Joon Goo Lee (RAONTECH, Korea)

[01_07_1403]

A Novel a-IGZO TFT Gate Driver Circuit to Prevent Leakage Path Using Capacitor

Jungwoo Lee, Jongsu Oh, Eun Kyo Jung (Sungkyunkwan Univ., Korea), KeeChan Park (Konkuk Univ., Korea), Jae-Hong Jeon (Korea Aerospace Univ., Korea), and Soo-Yeon Lee (Seoul Nat'l Univ., Korea)

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Topic Title:	07. Display Electronics and Systems
Session Title:	02. Emerging Devices and Circuits

[02_07_1602]

Multi-Level NOR and NAND Memory Arrays Comprising Oxide Thin-Film Transistors and their Driving Methods

Jongbin Kim (Kyung Hee Univ., Korea), Hoon-Ju Chung (KIT, Korea), and Seung-Woo Lee (Kyung Hee Univ., Korea)

[02_07_1525]

A Self-Sensing Electroactive Soft Photonic Device for Improvement of Color Expression Performance

Im bo Gong, Hyeon seok Eo, and Wook sung Kim (POSTECH, Korea)

[02_07_1395]

Optoelectronic Memristors Consisting of Sol-Gel Based Metal-Oxide Films for Artificial Neural Networks

Sang-Joon Park, Jun-Young Jeon, and Tae-Jun Ha (Kwangwoon Univ., Korea)

[02_07_1623]

An Inverting Amplifier with Higher Gain Using Corbino-TFTs

Woo-Rim Lee, Jae-Hee Joe, Mallory Mativenga (Kyung Hee Univ., Korea), Hoon-Ju Chung (Kumoh Nat'l Inst. of Tech., Korea), Soo Ji Nam, Su Jung Kim, Chun-Won Byun (ETRI, Korea), and Seung-Woo Lee (Kyung Hee Univ., Korea)

[02_07_1616]

Tunable Piezoelectric Nanogenerators Using Flexoelectricity of Well-Ordered Hollow 2D MoS_2 Shells Arrays for Wearable Device

Sungho Kim (KRICT, Korea and Sungkyunkwan Univ., Korea), Sang-Woo Kim (Sungkyunkwan Univ., Korea), Jongsun Lim, and Sung Myung (KRICT, Korea)

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Topic Title:	07. Display Electronics and Systems
Session Title:	03. Poster Session 7

[03_07_1197]

Image Processing for Under Panel Camera Display

Jungkyu Kim, Myeongwoo Lee, Bitna Lee, Deokhwa Woo (Samsung Display Co., Ltd., Korea)

[03_07_1223]

Capacitive Sensor Integration Circuit Using Photo-Patternable Ionic PUA Based Coplanar a-InGaZnO TFTs

Changhyeon Cho, Yongchan Kim (Soongsil Univ., Korea), Hanbin Choi, Do Hwan Kim (Hanyang Univ., Korea), and Hojin Lee (Soongsil Univ., Korea)

[03_07_1270]

Efficient Powering in Display Subsystem Using Active Clamp Resonant DC-DC Converters

Satoshi Ikeda (Panasonic Corp., Japan), Kazuhiro Kajiwara, Kazuki Tsuji, and Fujio Kurokawa (Nagasaki Inst. of Applied Science, Japan)

[03_07_1273]

A Study on the Display Sensor Noise Analysis with TFT Model

Hyeondo Park, Hyochul Lee, Insoo Wang, Byeongtaek Son, Yudeok Seo, Dongjin Seo, and Yongjo Kim (Samsung Display Co., Ltd., Korea)

[03_07_1306]

Simulation Method of Full Panel Circuit for High Resolution OLED Display Panel

Chol Ho Kim, Won Jun Lee, Hae Ryeong Park, Young Yoo Lee, and Yongjo Kim (Samsung Display Co., Ltd., Korea)

[03_07_1316]

Adaptive Bias Current Control Technique for Low Static Current in Driver IC

Sanghyun Heo, Jong-Soo Kim, Junyong Song, Jiwoong Kim, Seongjoo Lee, Hyunggun Ma, and OhJo Kwon (Samsung Display Co., Ltd., Korea)

[03_07_1322]

A Study on OTA Measurement Technology for Antenna Display

Sangrock Yoon, Bonghyun You, Wonsang Park, Kiseo Kim, Jaekyoung Kim, Seongryong Lee, and Eunjin Sung (Samsung Display Co., Ltd., Korea)

[03_07_1376]

Doping-Induced Optical Refining of Organic Photodiodes for R/NIR Selectivity

Mingyun Kang (DGIST, Korea), Juhee Kim, Syed Zahid Hassan, and Dae Sung Chung (POSTECH, Korea)

[03_07_1379]

Round Design Algorithm for OLED

Takeshi Kato, Geunyoung Jeong, Hosuk Maeng, Yangsoo Kim, and Wonjun Choe (Samsung Display Co., Ltd., Korea)

[03_07_1385]

Breath-Figure Molding of Polymer Transistors to Realize Flexible and Highly Selective NO_x Sensors

Seong Hoon Yu (DGIST, Korea), Henok Getachew Girma (KRICT, Korea), Kyu Min Sim (DGIST, Korea), Hoyoul Kong (KRICT, Korea), and Dae Sung Chung (POSTECH, Korea)

[03_07_1392]

Surfactant-Induced Solubility Control to Realize Water-Processed High Precision Patterning of Polymeric Semiconductors for Full Color Organic Image Sensor

Kyu Min Sim (POSTECH, Korea), Geon-Hee Nam (DGIST, Korea), and Dae Sung Chung (POSTECH, Korea)

[03_07_1424]

Mura Compensation Algorithm based on Noise Reduction Code

Hyunseuk Yoo, Jieun Park, Seokha Hong, Kyungwoo Kim, and Hyesang Park (Samsung Display Co., Ltd., Korea)

[03_07_1484]

An Improved Driver Circuit Design of Glass-Based CMOS Liquid Crystal Display Panel Based on Register Transfer Level

Jing Zhao, Yehao Zhang, Xiuyun Chen, Lingyu Sun, Tingxiu Hou, Zhenguo Xu, Meng Shi, Yadong Huang, Dapeng Liang, and Jing Zhao (Beijing BOE Optoelectronics Tech. Co., Ltd., China)

[03_07_1540]

Investigation of Ammonium Sulphite Treatment on Si/Al_2O_3 Interfaces for Non-Volatile Memory Applications

Khushabu Agrawal, Vilas Patil, Jaemin Kim, Geonju Yoon, Eun-Chel Cho, and Junsin Yi (Sungkyunkwan Univ., Korea)

[03_07_1584]

InGaZnO Synaptic Device with Charge-Trapping Layer under Illumination Conditions for Unsupervised Spiking Neural Networks

Kihwan Kim, Taeho Lee, Youngjoon Choi, Junsu Lee, Tae-jun Seok, Tae Joo Park, and Saeroonter Oh (Hanyang Univ., Korea)

[03_07_1688]

Readout Circuit for In-Cell Touch Panel by Sharing with Source Driver IC Amplifier

Ju Youg Choi, YongHoo Hong, JongSu Oh, EunKyo Jung, JungWoo Lee (Sungkyunkwan Univ., Korea), KeeChan Park (KonKuk Univ., Korea), JaeHong Jeon (Korea Aerospace Univ., Korea), SooYeon Lee (Seoul Nat'l Univ., Korea), and YongSang Kim (Sungkyunkwan Univ., Korea)

[03_07_2006]

Humidity Effects on Synaptic Characteristics of Peptide-Based Transistors

Wonjae Ji, Min-Kyu Song, and Jang-Yeon Kwon (Yonsei Univ., Korea)

[03_07_2007]

Image Quality Enhancement by Estimation of Illumination based on Main Chroma Area

Ji-Heon Lee and Young-Kyu Hong (KETI, Korea)

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Topic Title:	08. Display Manufacturing and Equipment
Session Title:	01. Printing and Coating Technology for Display

[01_08_1730] [Invited]

High-Resolution Printing Techniques for Solution-Processed TFTs

Kusaka Yasuyuki and Fukuda Nobuko (AIST, Japan)

[01_08_1791] [Invited]

High-Resolution Printing for Metal Oxide Thin-Film Transistors

Huipeng Chen (Fuzhou Univ., China)

[01_08_1421]

Electrohydrodynamic (EHD) Printing Based Flexible and Transparent Patterns with Perovskite Nanoparticles

Giho Kang (Sungkyunkwan Univ., Korea), Hyungdong Lee (Samsung Display Co., Ltd., Korea), and Doyoung Byun (Sungkyunkwan Univ., Korea)

[01_08_1201]

High-Density Organic Stripe Coating Using a Slot-Die Head with Multiple μ-Tips for OLEDs

Jinyoung Lee, Dongkyun Shin, and Jongwoon Park (KOREATECH, Korea)

[01_08_1413]

High-Resolution Patterning Methodology of OLEDs Using Hybrid Solution and Evaporation Process

Kwan Hyun Cho, Young Joon Han, Yong-Cheol Jeong, Ho-Nyun Lee, Han Chul Cho, and Kyung-Tae Kang (KITECH, Korea)

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August 25 - 28, 2020 / Online Conference

Topic Title:	08. Display Manufacturing and Equipment
Session Title:	02. Thin Film Fabrication and Intelligent Monitoring

[TBA] [Invited]

Overview of Thin Film Encapsulation Technology in OLEDs

Myungsoo Huh (Samsung Display Co., Ltd., Korea)

[02_08_1377]

Composition and Film Thickness Uniformity Optimization for OLED Thermal Evaporation Process

Junhwa Jung, Byung Chun Kim, HanYong Lee (NIMS, Korea), Kisu Kim (SVM Tech, Korea), and Pete Sihyun Lee (Kyonggi Univ., Korea)

[02_08_1529]

High Efficiency Inverted OLEDs with Silver Doped Electron Transporting Layer

Sang Min Cho, Hye In Yang, Seung Hye Jeong, and Jang Hyuk Kwon (Kyung Hee Univ., Korea)

[02_08_1286]

Prediction Method of Material Degradation in AMOLED Mass Production by Using Inner Pressure Simulation of Evaporation Source

Sungmoon Kim and Taekgi Lee (R&D Center of Depolab Inc., Korea)

[02_08_1187]

Intelligent Monitoring of PECVD Process based on “E-S-W” Mode

Wenbo Zhang, Ruwang Guo, Zuhong Liu, Xiangxiu Piao, Shanbing Diao, and Jiuli Yang (Hefei BOE Optoelectronics Tech. Co., Ltd., China)

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Topic Title:	08. Display Manufacturing and Equipment
Session Title:	03. Poster Session 8

[03_08_1168]

Origami-Inspired Connectable Modular-Pixel Aero Signage Display Systems Which Enable to Joint Pixels Diagonally for Spatial Imaging

Kunio Sakamoto and Kouhei Watanabe (Konan Univ., Japan)

[03_08_1190]

In-Line Inspection Methods for the Electrical Properties of IGZO Thin Films

Jin-Choul Park, Hyun-Woo Ryu, Jin-Yeong Do, Byung-Han Yun, Joo-Suk Kang (AVACO Co., Ltd., Korea), Sang-Hee Ko Park (KAIST, Korea), and Chi-Sun Hwang (ETRI, Korea)

[03_08_1192]

Polymer-Doped Functional Metal Oxide Ink Systems for Drop-On-Demand Printed Dielectric Layer

Honglong Ning, Zhennan Zhu, Yao Rihui, Kuankuan Lu, Zhihao Liang, Shangxiong Zhou (South China Univ. of Tech., China), Jun Huang, Haidong Ren, Xiuhua Cao (State Key Lab. of Advanced Materials and Electronic Components, China), and Junbiao Peng (South China Univ. of Tech., China)

[03_08_1199]

Multilayer Organic Thin-Film Stripes Planarized by a Heating Roll in Slot-Die Coater for OLEDs

Dongkyun Shin, Jinyoung Lee, and Jongwoon Park (KOREATECH, Korea)

[03_08_1200]

Fabrication of Fine PEDOT:PSS Stripes Using a Hydrophobic Slot-Die Head for OLEDs

Jinyoung Lee, Dongkyun Shin, and Jongwoon Park (KOREATECH, Korea)

[03_08_1216]

Improvement of High Temperature Crosstalk in Amorphous Silicon Thin Film Transistors

Man Wang, Ru Wang Guo, Ming Ming Chu, Xin Hong Chen, Lei Meng, Zu Hong Liu, and Xiang Xiu Piao (Hefei BOE Optoelectronics Tech. Co., Ltd., China)

[03_08_1237]

Measuring AGV Dispatching Effect by Comparing In-Line and Segment Equipment for Display Module Process

Yonggu Kim and Minsu Kwon (Samsung Display Co., Ltd., Korea)

[03_08_1279]

Effects of Bake Conditions on OLED Devices based on Soluble Process

Seunguk Noh, Sehun kim, Jaekook Ha, and Changhee Lee (Samsung Display Co., Ltd., Korea)

[03_08_1285]

Novel Fluorescence Measurement of Pressure Sensitive Adhesives (PSAs) for Measuring Curing Rate of PSA

Minwoo Noh (Samsung Display Co., Ltd., Korea)

[03_08_1320]

Investigation of Rheological Behavior of Ink Solvents

Jong-Ho Shin, Ah-sell Cho, Heemin Yoo, and Nari Ahn (Samsung Display Co., Ltd., Korea)

[03_08_1321]

Detection of Ångström Layer Ytterbium in Panel by Laser-Induced Breakdown Spectroscopy

Woong Kim, Young-dae Kim, Kyung Lae Rho, and Nari Ahn (Samsung Display Co., Ltd., Korea)

[03_08_1328]

Large Area Deposition of High-K Dielectric Layers by Using a Metal-Organic Chemical Vapor Deposition

Seonuk Park, Myung Soo Huh, Woo Jin Kim, Geun Hee Park, Mija Hwang, and Dong Kyun Ko (Samsung Display Co., Ltd., Korea)

[03_08_1331]

Aerial Image Analysis of Photomask for Flat Panel Display

Jaehyuk Chang (Samsung Display Co., Ltd., Korea), Seungho Park (Seoul Engineering Co., Ltd., Korea), Kunwon Lee, Si-Kyung Lim, Taejoon Kim, and Jeongmin Park (Samsung Display Co., Ltd., Korea)

[03_08_1335]

Modeling of Oxide Thin Film Transistors with High Current

ByoungTaek Son, TaeYoung Choi, JinHyuk Jang, SangWook Jeon, and YoungMi Cho (Samsung Display Co., Ltd., Korea)

[03_08_1349]

Study on the Detection of Mixed OLED Materials Using Fluorescence Life-Time Imaging Microscopy Systems

Woo young Lee, Ki Young Yeon, WonBin Cho, Sooim Jeong, Young Gil Park, and Nari Ahn (Samsung Display Co., Ltd., Korea)

[03_08_1357]

Development of New Mask Coating Thin Film for Increasing Mass Production Efficiency in OLED Process

Hyo-Sung Kim, Sung-Min Hur, and Hyun-Ju Lee (Samsung Display Co., Ltd., Korea)

[03_08_1388]

Development of Dry Etching for the InGaZnO Film Using CH_4-Based Gas Chemistry with High Volatility of Etch By-Product

Hyun Cheol Cho, Hyun Ju Seol, Nu Ri On, Min Hoe Cho, Ho Jae Lee, and Jae Kyeong Jeong (Hanyang Univ., Korea)

[03_08_1404]

Bessel-Beam Generation with Spatial Light Modulators and Laser Glass Cutting by Crack Orientation Control

Kim Wonyong (Samsung Display Co., Ltd., Korea), Konstntin Mischick (Amplitude System, France), and Han Gyuwan (Samsung Display Co., Ltd., Korea)

[03_08_1414]

Fabrication of Pixelated Transparent/Colored Mirror Switchable Device Using Fabry-Perot Interferometer based on Indium-Tin-Oxide

Chihun Sung, Jisu Han (ETRI, Korea and UST, Korea), Juhee Song, Chil Seong Ah, Seong M. Cho (ETRI, Korea), and Tae-Youb Kim (ETRI, Korea and UST, Korea)

[03_08_1416]

Relation Between Co-Solvent Solutions and Ink Filling for High-Resolution OLED Fabrication

Jun Yeub Lee, Young Joon Han (Korea Univ., Korea and KITECH, Korea), Byeong-Kwon Ju (Korea Univ., Korea), and Kwan Hyun Cho (KITECH, Korea)

[03_08_1443]

The Investigation of Organic Thin Film Characteristics by Using Non-Reactive Carrier Gas in Low Pressure Deposition

Hongjoo Jeon, Junha Park, Euna Ko, Giwoon Sung, Yongho Cho, Sangjin Han, and Myungsoo Huh (Samsung Display Co., Ltd., Korea)

[03_08_1465]

The Effect of the Protrusion in Polycrystalline Silicon (Poly-Si) Thin Film by Dehydrogenation Process before ELA Crystallization

Sungsoo Lee and Jaesik Choi (LG Display Co., Ltd., Korea)

[03_08_1475]

Non-Chemical Etching Method for Characterizing TFTs of a Real Pixel

Mi-Hyang Sheen, Kyung Lae Rho, and Nari Ahn (Samsung Display Co., Ltd., Korea)

[03_08_1479]

The Study of Drop Volume in Inkjet System with Ink Recirculation

Cheongwan Min, Wooree Ko, Mina Han, and Myungsoo Huh (Samsung Display Co., Ltd., Korea)

[03_08_1480]

Study of Laser Pattering Using Zero Delay Raster Scanning Method

Jinhong Jeun, Gyoowan Han, Haesook Lee, Junghwa You, Woohyun Jung, Alexander Voronov, and Jekil Ryu (Samsung Display Co., Ltd., Korea)

[03_08_1509]

Study of the Solderability in Metal Layers Using Laser-Induced Local Heat Transfer

Woohyun Jung, Gyoowan Han, and Hyoung Joo Kim (Samsung Display Co., Ltd., Korea)

[03_08_1560]

Direct Imaging of Small Amounts of Dopant Distribution in Ultra-Fine Regions

Ji-Hye Lee, Soocheol Park, Jungwoon Jung, and Nari Ahn (Samsung Display Co., Ltd., Korea)

[03_08_1563]

Development and Investigation of a New Gamma Correction Device Using Simultaneous RGB Inspection for Display Applications

Yong Jin Park (Chung-ang Univ., Korea and SP Tech. Co., Korea), Wan Sun, Sehoon Chun, Xue Wen Zhang, and Jongwon Seok (Chung-ang Univ., Korea)

[03_08_1573]

Design UHF Tag Antenna on Textile Using Silver Conductive Thread for Wearable Applications

Tran ThuyNga Truong, Ji-Seon Kim, Sang-Jin Kim, and Jooyong Kim (Soongsil Univ., Korea)

[03_08_1577]

The Case Study of Management and Upgrade Improvement of the Legacy Robot System Firmware

Tae Min Kim (Sungkyunkwan Univ., Korea and Samsumg Electronics Co., Korea) and Jae Wook Jeon (Sungkyunkwan Univ., Korea)

[03_08_1578]

A Study on Diagnostics Method of Vaporizer in In-Situ Processing

Tae Min Kim (Sungkyunkwan Univ., Korea and Samsung Electronics Co., Korea) and Jae Wook Jeon (Sungkyunkwan Univ., Korea)

[03_08_1581]

Electrohydrodynamic Inkjet Printed Optical Waveguide based on Micro-Pinning Structures

Seunghwan Lee, Geonhee Kim, Jinsu Yoon, and Yongtaek Hong (Seoul Nat'l Univ., Korea)

[03_08_1587]

All Angle Display Design Mask Correction with Inverse Lithography Technology

Sunkook Kim, Seunghee Baek, Hyunchul Kim, Junghoe Choi (Synopsys Korea, Korea), Kosta Selinidis, Guangming Xiao (Synopsys Inc, USA), Jeongseok Lee, and Minjong Hong (Samsung Display Co., Ltd., Korea)

[03_08_1603]

Real-Time Monitoring of Unexpected Plasma Instability Using OES in DC Magnetron Sputter

Tae-Hun Lim, Se-Hwan Jang, Yeon-Su Jung (Yonsei Univ., Korea), Kwan-Yong Lee (Samsung Display Co., Ltd., Korea), and Young-Joo Kim (Yonsei Univ., Korea)

[03_08_1628]

The Fabrication of Photosensitive Polyimide for Semiconductor Using t-BOC Group

Gwang Sik Song (KITECH, Korea and Yonsei Univ., Korea), Sung Man Park, Young Hun Kim, Yeong Rang Kim, Youn Jung Heo, Jeong Ju Baek, Ki Cheol Chang, Kyung Ho Choi (Yonsei Univ., Korea), Gyo Jic Shin (KITECH, Korea)

[03_08_1685]

Effect of Xe-Flash Lamp Photonic Curing on the Annealing of ITO-Ag-ITO Multilayer Electrodes

Zhenqian Zhao, Dong Hyun Lee, Haechang Lee, Younggon Choi, Yuanrui Qi, Minseok Song, Kirak Kim, Sang Jik Kwon, Eou Sik Cho (Gachon Univ., Korea), D. Alex Rose, Hanseul Kim, and Minyoung Lee (NovaCentrix Asia, Korea)

[03_08_1703]

Enhancement of Adhesion Force between Inorganic/Organic Interfaces in Thin Film Encapsulation

W.Y. Kim, S.Y. Song, S.H. Kim, W.Y. Sung, H.S. Lee, H.Y. Chu (Samsung Display Co., Ltd., Korea), and M.M. Sung (Hanyang Univ., Korea)

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Topic Title:	09. Display Optics – 3D Displays
Session Title:	01. Holographic Display, Synthesis, and Printing

[01_09_1777] [Invited]

Algorithm of Curved Computer Generated Hologram for 3D Holographic Display

Juan Liu and Ruidan Kang (Beijing Inst. of tech., China)

[01_09_1744] [Invited]

Different Viewpoint Holograms Generated from a Single Hologram

Tomoyoshi Shimobaba (Chiba Univ., Japan), Takashi Nishitsuji (Tokyo Metropolitan Univ., Japan), Takashi Kakue, and Tomoyoshi Ito (Chiba Univ., Japan)

[01_09_1554]

Experimental Verification of Holographic Contact Lens Display

Junpei Sano, Shujian Liu, and Yasuhiro Takaki (Tokyo Univ. of Agriculture and Tech., Japan)

[01_09_1202]

Holographic Prescription for Vision Correction: Matching with User's Eyeglasses Prescription Data

Dongyeon Kim, Seung-Woo Nam, Kiseung Bang, and Byoungho Lee (Seoul Nat'l Univ., Korea)

[01_09_1707]

Fast Hologram Synthesis Using Wave-Front Recording Plane-Based Look-Up Table Method

Yan-Ling Piao, Ki-Chul Kwon (Chungbuk Nat'l Univ., Korea), Seok-Hee Jeon (Sunchon Nat'l Univ., Korea), Seong Gyoon Park (Kongju Nat'l Univ., Korea), and Nam Kim (Chungbuk Nat'l Univ., Korea)

[01_09_1671]

Digital Hologram Printing Method with Removing Phase Curvature on the Hologram Plane

Hosung Jeon (Kyungpook Nat'l Univ, Korea), Jonghyeon Lee, Hwi Kim (Korea Univ., Korea), and Joonku Hahn (Kyungpook Nat'l Univ, Korea)

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Topic Title:	09. Display Optics – 3D Displays
Session Title:	02. Light Field / Spatial / AR Displays I

[02_09_1768] [Invited]

Augmented Reality 3 Dimensional Head-up Display

Kyuhwan Choi, Jin-Ho Lee, Yoonsun Choi, Yangho Cho, Seok Lee, Jingu Heo, Byongmin Kang, Juyong Park, and Dongkyung Nam (Samsung Electronics Co., Ltd., Korea)

[TBA] [Invited]

TBA

Huub Van Kuringen (Dimenco, The Netherlands)

[02_09_1598]

Luminance Distribution and Monocular Depth Perception by Smooth Motion Parallax in Visually Equivalent Light Field 3D Display Using Optical Linear Blending Technology

Ren Kamada, Haruki Mizushina (Tokushima Univ., Japan), Munekazu Date, Shinya Shimizu (NTT, Japan), and Shiro Suyama (Tokushima Univ., Japan)

[02_09_1668]

Reconstruction of Three-Dimensional Object in Time-Sequential Super Multi-View Display

Sungjin Lim, Hosung Jeon, Daerak Heo, and Joonku Hahn (Kyungpook Nat'l Univ., Korea)

[02_09_1355]

Two-Sided Aerial Signage by Use of a Retro-Reflective Slit-Array

Daiki Nishimura and Hirotsugu Yamamoto (Utsunomiya Univ., Japan)

[02_09_1642]

Effects of Motion Parallax on Perceived Depth and Binocular Fusion in Binocular Stereopsis with Vertical Disparity

Yusuke Fukuta, Shiro Suyama, and Haruki Mizushina (Tokushima Univ., Japan)

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Topic Title:	09. Display Optics - 3D Displays
Session Title:	03. Light Field / Spatial / AR Displays II

[03_09_1761] [Invited]

Three-Dimensional Display Optics for Spatial Imaging

Hayato Watanabe, Hisayuki Sasaki, Naoto Okaichi, Masanori Kano, Takuya Omura, and Masahiro Kawakita (NHK, Japan)

[03_09_1732] [Invited]

Fourier Lightfield Microscopy, an Emerging Tool for Real-Time 3D Imaging

M. Martinez-Corral, G. Scrofani, G. Saavedra, and E. Sanchez-Ortiga (Univ. of Valencia, Spain)

[03_09_1723] [Invited]

See-through Displays based on Holographic Lens and Wavelength Compensation

Jiwoon Yeom, Yeseul Son, and Kwang-Soon Choi (KETI, Korea)

[03_09_1549]

Holographic Waveguide-Type Three-Dimensional Display for Augmented Reality Using the Holographic Optical Element-Mirror Array

Nyamsuren Darkhanbaatar, Munkh-Uchral Erdenebat (Chungbuk Nat'l Univ., Korea), Kwon-Yeon Lee (Sunchon Nat'l Univ., Korea), Seong Gyoon Park (Kongju Nat'l Univ., Korea), and Nam Kim (Chungbuk Nat'l Univ., Korea)

[03_09_1677]

Reflected Light for Integral Imaging Microscope Using a Holographic Optical Element

Hui-Ying Wu, Chang-Won Shin (Chungbuk Nat'l Univ., Korea), Sang-Keun Gil (Suwon Univ., Korea), and Nam Kim (Chungbuk Nat'l Univ., Korea)

[03_09_1683]

Recovery of Depth based on the Energy of Edge-Detection from a Single Defocused Image

Beomjun Kim, Daerak Heo, Hosung Jeon, and Joonku Hahn (Kyungpook Univ., Korea)

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Topic Title:	09. Display Optics – 3D Displays
Session Title:	04. Light Field / Spatial / AR Displays III

[04_09_1741] [Invited]

Volumetric Display with Femtosecond Laser Excited Voxels

Yoshio Hayasaki and Kota Kumagai (Utsunomiya Univ., Japan)

[04_09_1755] [Invited]

Augmented Reality Displays without 3D Visual Fatigue

Yan Li, Shuxin Liu, and Yikai Su (Shanghai Jiao Tong Univ., China)

[04_09_1486]

Analysis of Viewing Area of Multiple Aerial Imaging by Use of Infinity Mirror

Kazunari Chiba (Utsunomiya Univ., Japan), Masaki Yasugi, and Hirotsugu Yamamoto (Utsunomiya, Japan and ACCEL, Japan)

[04_09_1551]

Arc 3D on a Glass Substrate Formed with Patterned Etching

Ikuya Saji (Utsunomiya Univ., Japan), Masafumi Nakata, Yasuhiro Kashihara, Atsushi Hayashi (NSC Co., Ltd., Japan), and Hirotsugu Yamamoto (Utsunomiya Univ., Japan and ACCEL, Japan)

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Topic Title:	09. Display Optics – 3D Displays
Session Title:	05. Poster Session 9

[05_09_1166]

One-Way Observable Aero Signage Display Which Enables to Make Transparent View from Back Side Using Dye-Doped Optical Resin Blocks

Kunio Sakamoto and Mao Ishikawa (Konan Univ., Japan)

[05_09_1209]

Enhanced Photon Counting 3D Reconstruction Method Using Merging Layer

Jaehoon Lee (Kyushu Inst. of Tech., Japan), Kotaro Inoue, Myungjin Cho (Hankyong Nat'l Univ., Korea), and Min-Chul Lee (Kyushu Inst. of Tech., Japan)

[05_09_1210]

Optical Distance Calculation Method between Vehicles Using Dashcams and License Plates

Jaehoon Lee (Kyushu Inst. of Tech., Japan), Kotaro Inoue, Myungjin Cho (Hankyong Nat'l Univ., Korea), Hyun-Woo Kim and Min-Chul Lee (Kyushu Inst. of Tech., Japan)

[05_09_1211]

High-Speed Depth Prediction Technique of Integral Imaging based on Path Tracing

Min-Chul Lee, Masaharu Tashiro, Jaehoon Lee (Kyushu Inst. of Tech., Japan), Kotaro Inoue (Hankyoung Nat'l Univ., Korea), Naoki Konishi (Kyushu Inst. of Tech., Japan), and Myungjin Cho (Hankyong Nat'l Univ., Korea)

[05_09_1212]

Phase Averaging Method for Noise Reduction of the Digital Holographic Microscopy

Hyun-Woo Kim, Jaehoon Lee (Kyushu Inst. of Tech., Japan), Myungjin Cho, Kotaro Inoue (Hankyong Nat'l Univ., Korea), and Min-Chul Lee (Kyushu Inst. of Tech., Japan)

[05_09_1213]

Refractive Index of the Surrounding Medium Measurement Using Depth of Field of Objective Lens in the Digital Holographic Microscopy

Hyun-Woo Kim (Kyushu Inst. of Tech., Japan), Myungjin Cho, Kotaro Inoue (Hankyong Nat'l Univ., Korea), and Min-Chul Lee (Kyushu Inst of Tech., Japan)

[05_09_1277]

Aberration Compensation of Holographic Augmented Reality Display with Optical Path Length Based Ray Tracing Method

Seung-Woo Nam, Dongyeon Kim, Kiseung Bang, and Byoungho Lee (Seoul Nat'l Univ., Korea)

[05_09_1281]

Optimized Random Phase for Amplitude-Only Hologram

Youngjin Jo, Dongheon Yoo, Dukho Lee, Chanhyung Yoo, and Byoungho Lee (Seoul Nat'l Univ., Korea)

[05_09_1287]

Computer-Generated Hologram Calculation for Optical System with High Numerical Aperture Field Lens

Dukho Lee, Kiseung Bang, and Byoungho Lee (Seoul Nat'l Univ., Korea)

[05_09_1347]

Quality Enhancement of Binary Computer-Generated Holograms by Using Error Diffusion

Kyosik Min and Jae-Hyeung Park (Inha Univ., Korea)

[05_09_1356]

Optical-See-Through Light-Field Display Using Dihedral Corner Reflector Array

Myeong-Ho Choi, Dabin Min, and Jae-Hyeung Park (Inha Univ., Korea)

[05_09_1364]

Floating Display with Compact Form-Factor Using Dihedral Corner Reflector Array

Dabin Min, Myeong-Ho Choi, and Jae-Hyeung Park (Inha Univ., Korea)

[05_09_1370]

Centroid Shift Calibration of Microlens Array for Integral Image Microscope

Shariar Md Imtiaz, Mohammed Y. Abbass, Ki-Chul Kwon (Chungbuk Nat'l Univ., Korea), Jong-Rae Jeong (Suwon Science College), and Nam Kim (Chungbuk Nat'l Univ., Korea)

[05_09_1380]

Color Representation of the Holographic Display Using LC SLM and White LED Light Source

Hyon-Gon Choo, Kwan-Jung Oh, and Yongjun Lim (ETRI, Korea)

[05_09_1427]

Aerial Multi-Modal Guiding Illumination for Non-Contact Vein Imaging Combined with Aerial Heater and AIRR

Yuto Watanabe, Ikyua Saji, Kengo Fujii (Utsunomiya Univ., Japan), and Hirotsugu Yamamoto (Utsunomiya Univ., Japan and ACCEL, Japan)

[05_09_1450]

Viewing-Zone Free 3-D Object Navigation in Super Multi-View Displays

CHAN-HYUK LEE (KIST, Korea and Korea Univ., Korea), DAE-YONG CHO (KIST, Korea), CHANG-HUN KIM (Korea Univ., Korea), and MIN-KOO KANG (KIST, Korea)

[05_09_1487]

Interactive Three-Dimensional Multiview Display System Using a Head Tracking Camera

Md. Shahinur Alam, Young-Tae Lim (Chungbuk Nat'l Univ., Korea), Jae-Kyung Pan (Chonbuk Nat'l Univ., Korea), and Nam Kim (Chungbuk Nat'l Univ., Korea)

[05_09_1494]

Aligned Optical Bonding System for Light Field Display

Jeong Woo Park, Jae-Joong Kwon, Beom-Shik Kim, Young Sang Ha, and Seong-Chan Cho (Samsung Display Co., Ltd., Korea)

[05_09_1537]

Improvement of Holographic Image Resolution Using Ultra-High-Definition Spatial Light Modulator

Sangho Kim, Joowoan Cho, Jaeho Yu, Youngchan Kim, Byungchoon Yang (Samsung Display Co., Ltd., Korea), Geunseop Choi (KETI, Korea), Jaejoong Kwon, Jongho Hong, Sungchan Jo, Changhee Lee, and Jinoh Kwag (Samsung Display Co., Ltd., Korea)

[05_09_1550]

Digital Content Generation for Holographic Printer based on Integral Imaging Using Ray-Wavefront Conversion

Anar Khuderchuluun, Erkhembaatar Dashdavaa (Chungbuk Nat'l Univ., Korea), Hoonjong Kang (Wonkwang Univ., Korea), and Nam Kim (Chungbuk Nat'l University, Korea)

[05_09_1593]

2D/3D Switching Full Color Digital Holographic Mobile Display Utilizing Active Switching Back Light Unit

Su-Won Lee, Min-Kyu Park, Tae-Hyun Lee (Kyungpook Nat'l Univ., Korea), Sangho Kim, Young-Chan Kim, Byungchoon Yang (Samsung Display Co., Ltd., Korea), and Hak-Rin Kim (Kyungpook Nat'l Univ., Korea)

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Topic Title:	10. Emerging Display Technologies
Session Title:	01. Perovskite Light-Emitting Diodes

[01_10_1235] [Invited]

High Performance from Organic/Perovskite Light-Emitting Diodes

Toshinori Matsushima (Kyushu Univ., Japan) and Chihaya Adachi (Kyushu Univ., Japan and JST-ERATO, Japan)

[TBA] [Invited]

TBA

Myoung Hoon Song (UNIST, Korea)

[01_10_1786] [Invited]

Enabling Multiple Generations of Future Displays with Perovskites

Bernard Wenger and Simon B. Jones (Helio Display Materials Ltd., UK)

[01_10_1694]

Foldable Perovskite Light-Emitting Diodes Using Ultrathin UV-Curable Substrates

Junho Kim, Eungjun Kim, Hanul Moon, and Seunghyup Yoo (KAIST, Korea)

[01_10_1284]

Sonochemical Synthesis of $CsPbBr_3$ Perovskite Quantum Dots and Fabrication of Electroluminescence Devices

Chan-Sol Jo, Kyeongchan Noh, and Seong-Yong Cho (Myong-ji Univ., Korea)

[01_10_1247]

Room-Temperature Synthesis of Ni-Doped Cesium Lead Halide Perovskite with Enhanced Stability

Hayeong Kim and Soo Young Kim (Korea Univ., Korea)

[01_10_2008]

Enhancing the Efficiency and Lifetime of Perovskite Light Emitting Diodes with Size-Controlled PVP capped Gold Nanoparticles

Chang Min Lee, Dong Hyun Kim, Hyung Ju Chae, Jun Su Yang, Gyu Chan Lee, Ui Jun Lee, and Seung Yoon Ryu (Korea Univ., Korea)

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Topic Title:	10. Emerging Display Technologies
Session Title:	02. Unconventional OLEDs and Microdisplays

[TBA] [Invited]

TBA

Cheolmin Park (Yonsei Univ., Korea)

[02_10_1727] [Invited]

High Resolution Full Color Generation from a Cavity Control Layer for AR/VR Applications

Seong Keun Kim and Jang Hyuk Kwon (Kyung Hee Univ., Korea)

[02_10_1341]

Full Color Active-Matrix Organic-Light Emitting Diode Display on Human Skin based on a Large Area MoS_2 Backplane

Sa-Rang Bae and Soo young Kim (Korea Univ., Korea)

[02_10_1415]

Washable Encapsulation Barrier with Ultra-Thin Bilayer Structure for Wearable OLEDs

Kyung Cheol Choi, So Yeong Jeong, and Ki Suk Kang (KAIST, Korea)

[02_10_1557]

Strategies to Achieve High Efficiency and Low Efficiency Roll-Off in Simplified Solution-Processed Organic Light-Emitting Diodes

Young-Hoon Kim (Seoul Nat'l Univ., Korea), Tae-Hee Han (Hanyang Univ., Korea), Changsoo Lee (Univ. of California, USA and KAIST, Korea), Yun-Hi Kim (Gyeongsang Nat'l Univ., Korea), Yang Yang (Univ. of California, USA), and Tae-Woo Lee (Seoul Nat'l Univ.,

[TBA] [Invited]

Rational Molecular Design and Synthesis for Efficient Phosphorescent Materials and Their OLED Applications

Guodan Wei (Tsinghua-Berkeley Shenzhen Inst., China)

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Topic Title:	10. Emerging Display Technologies
Session Title:	03. Emerging Light-Emitting Diodes and Lasers: Perovskite/Inorganic QDs, and UV OLED

[TBA] [Invited]

LEDs with Enhanced Color Saturation based on Soft Materials

Yitong Dong (Univ. of Toronto, Canada)

[TBA] [Invited]

In-situ Fabricated Perovskite Quantum Dots: Colourful Materials for Display Applications

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

[TBA] [Invited]

TBA

Moon Kee Choi (UNIST, Korea)

[03_10_1693]

Realization of Flexible Ultraviolet Organic Light-Emitting Diodes through Top Emission Structure

Donggyun Lee, Jaehyeok Park, Woochan Lee, and Seunghyup Yoo (KAIST, Korea)

[TBA] [Invited]

Quasi-2D Perovskites for Lasers

Franky So (North Carolina State Univ., USA)

[TBA] [Invited]

High Flux Stable Perovskite Quantum Dots-Polymer Composite for Down-Converting Application

Lutfan Sinatra (Quantum solutions, Saudi Arabia)

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Topic Title:	10. Emerging Display Technologies
Session Title:	04. Emerging Electronics and Optics

[04_10_1738] [Invited]

Ultrathin and Waterproof OLEDs for Flexible Displays

Changmin Keum (Univ. of St Andrews, UK), Caroline Murawski (Univ. of St Andrews, UK and Kurt-Schwabe-Institut für Mess- und Sensortechnik e.V. Meinsberg, Germany), Emily C. Archer, Seonil Kwon, Andreas Mischok (Univ. of St Andrews, UK), and Malte C. Gather (Univ. of St Andrews, UK and University of Cologne, Germany)

[04_10_1711]

Maltose-Ascorbic Acid Electrolyte Based Synaptic Transistors

Wei Qin, Jin Hyeok Lee, Byung Ha Kang, I Sak Lee, Kyungho Park, and Hyun Jae Kim (Yonsei Univ., Korea)

[04_10_1232]

Edge Detection Metalens with Additional Spiral Phase Profiles

Young Jin Kim, Jongwoo Hong, and Byoungho Lee (Seoul Nat'l Univ., Korea)

[04_10_1708]

Enhancement in Photo Sensitivity of MoS_2 Phototransistors by Simple Method of Reduction Treatment with Tannic Acid

Sujin Jung, I Sak Lee, Byung Ha Kang (Yonsei Univ., Korea), Seong In Hong (Sungkyunkwan Univ., Korea), Jusung Chung, Hyukjoon Yoo (Yonsei Univ., Korea), Sunkook Kim (Sungkyunkwan Univ., Korea), Hyun Jae Kim (Yonsei Univ., Korea)

[04_10_1709]

Enhancement of Photosensing Characteristics for IGZO Based Visible Light Phototransistor via PDMS Residues

Kyungho Park, Jin Hyeok Lee, Byung Ha Kang, Jusung Chung, and Hyun Jae Kim (Yonsei Univ., Korea)

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Topic Title:	10. Emerging Display Technologies
Session Title:	05. Poster Session 10

[05_10_1167]

Non-Electrical Light-Emitting Neon-Sig Llike Display Which Enables to Make Transparent from Back Side Using Fluorescent Dye-Doped Resin Blocks

Kunio Sakamoto and Suguru Monzen (Konan Univ., Japan)

[05_10_1240]

Dynamic Metasurface Hologram for Image Encryption and Decryption

Chulsoo Choi, Jangwoon Sung, and Byoungho Lee (Seoul Nat'l Univ., Korea)

[05_10_1296]

Off-Screen Camera and Display Technology

Zifeng Wang, Lei Cao, Yan Ren, Jummin Sun, Jinggang Wei, Wenbin Wang, and Yunpeng WU (BOE Tech. Group Co., Ltd., China)

[05_10_1307]

Analysis of Active Optical Resonances in Dielectric VO_2 Nanogratings

Kyuho Kim, Sun-Je Kim, and Byoungho Lee (Seoul Nat'l Univ., Korea)

[05_10_1493]

An EPD Pixel Structure with an ITO Pixel Electrode Selectively Blocking the Region of TFT

Min Wang, Gang Hua, Dong Wang, Zhe Wang, Liguang Deng, Guangquan Wang, Shaobo Li, Meng Gong, Jintang Hu, Pengkai Fan, Chao Tian, Zhiyong Wang, and Shilong Lang (Beijing BOE Optoelectronics Tech. Co., Ltd., China)

[05_10_1512]

Color Glass by Metal Oxide Multilayer Film for Building Integrated Photovoltaic (BIPV) System

Akpeko Gasonoo, Hyeon-Sik Ahn, Eun-Jeong Jang, Seongmin Lim, Jae-Hyun Lee, and Yoonseuk Choi (Hanbat Nat'l Univ., Korea)

[05_10_1565]

Absorptive Color Filter based on Digitalized Anisotropic Metamaterial

Jongwoo Hong, Changhyun Kim, and Byoungho Lee (Seoul Nat'l Univ., Korea)

[05_10_1568]

Metasurface Hologram with Color and Polarization Multiplexing

Changhyun Kim, Junhyeok Jang, and Byoungho Lee (Seoul Nat'l Univ., Korea)

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Topic Title:	11. Lighting Materials and Applications
Session Title:	01. Advanced LED and Micro-LED Technologies

[01_11_1724] [Invited]

Planar and Nanostructured AlGaN Ultraviolet Light Emitting Diodes and Lasers

Haiding Sun (Univ. of Science and Tech. of China, China)

[01_11_1725] [Invited]

Development of MicroLED Light Sources for Wearable Measurement System Applications

Ray-Hua Horng (Nat'l Chiao Tung Univ., Taiwan)

[01_11_1731] [Invited]

Micro-LEDs based on InGaN QDs for Display and Visible Light Communication

Lai Wang, Lei Wang, Zhibiao Hao, and Yi Luo (Tsinghua Univ., China)

[01_11_1680]

Broadband-Enhanced Light Emission from Quantum Dots Assembled in Multiscale Phase-Separated Block Copolymers

Geon Yeong Kim, Shinho Kim, Jinyoung Choi, Min Seok Jang, Duk Young Jeon, and Yeon Sik Jung (KAIST, Korea)

[01_11_1679]

Luminance Degradation Mechanism at Different Gray Levels after Constant Current Stressing

Yoonsuk Choi, Sangkil Kim, Heejin Kim, Donggi Ahn, Youngtae Choi, and Jongwoo Park (Samgsung Display Co., Ltd., Korea)

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Topic Title:	11. Lighting Materials and Applications
Session Title:	02. Advanced Lighting Materials and Applications

[02_11_1756] [Invited]

High Resolution Micro-LED Matrix for Augment Reality Application

Kai-Ling Liang, Wei-Hung Kuo, Yen-Hsiang Fang (Industrial Tech. Research Inst., Taiwan), and Chien-Chung Lin (Industrial Tech. Research Inst., Taiwan and Nat'l Chiao Tung Univ., Taiwan)

[TBA] [Invited]

TBA

Wanki Bae (Sungkyunkwan Univ., Korea)

[02_11_1790] [Invited]

High Efficiency Non-Doped White Organic Light-Emitting Diodes based on Exciplex Emission

Xinglei Xu, Han Wang, Dongxu Feng, and Gufeng He (Shanghai Jiao Tong Univ., China)

[02_11_1353]

Single-Unit Color Tunable White OLED Using a Charge Modulating Layer

Liang Gao, Menglan Xie, Huiqing Pang, Nannan Lu, Wei Cai, Ray Kwong, and Sean Xia (Beijing Summer Sprout Tech. Co., Ltd., China)

[02_11_1375]

Flexible Fiber-Based OLEDs from a Thermal Evaporation Process for Wearing Displays

Seong Uk Kong, Yong Ha Hwang, Ho Seung Lee, Yongmin Jeon, So Yeong Jeong, Seonil Kwon, and Kyung Cheol Choi (KAIST, Korea)

[02_11_1474]

Enhanced Optical Performances with High Refractive Index Material for Various Optics and Lighting Applications

Sang-Hun Choi, Selina Monickam, and Serpil Gonen Williams (Pixelligent Tech. LLC, USA)

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Topic Title:	11. Lighting Materials and Applications
Session Title:	03. Poster Session 11

[03_11_1178]

Trichogenic Stimulation via Flexible Vertical Micro LED

Han Eol Lee, Jae Hee Lee, and Keon Jae Lee (KAIST, Korea)

[03_11_1182]

Super-Thin Mini-LED BLU with Micro-Pyramids Textures

XianqinMeng, Weiting Peng, Yishan Tian, Qiuyu Ling, Wei Wang (BOE Tech. Group Co., Ltd., China), and Xiaochuan Chen (BOE Tech. Group Co., Ltd., China and Tsinghua Univ., China)

[03_11_1221]

Micro-Cavity Tandem NIR OLED for Bio/Medical Applications

Yongjin Park, Yongmin Jeon (KAIST, Korea), Hye-Ryung Choi, Kyoung-Chan Park (SNUBH, Korea), and Kyung Cheol Choi (KAIST, Korea)

[03_11_1250]

Emission of Continuously Varying Linear Polarization from a Single Substrate

Young-Kyo Seo, Yanqiu Chen, You-Jin Lee, Jae-Hoon Kim, and Chang-Jae Yu (Hanyang Univ., Korea)

[03_11_1310]

Efficient Yellow to Red Thermally Activated Delayed Fluorescence Emitters by Introducing Novel Rigid Acceptor

Soon Jae Hwang, Jee Hyun Maeng, and Jang Hyuk Kwon (Kyung Hee Univ., Korea)

[03_11_1369]

High Triplet Energy Bipolar Host Materials with Benziimidazobenzoimidazole and Dibenzofuran Moieties for Blue Thermally Activated Delayed Fluorescent Device

Hee Chang Lee, Hyuna Lee, Han Jong Yu, Young Hoon Jung, and Jang Hyuk Kwon (Kyung Hee Univ., Korea)

[03_11_1420]

Large Scale Textile-Based Organic Light Emitting Diodes(OLEDs) with High Flexibility for Fashion Displays.

Yunha Na, Seungyeop Choi, and Kyung Cheol Choi (KAIST, Korea)

[03_11_1469]

The Key Role of Acceptor Moieties on the Structural and the Electronic Properties of Thermally Activated Delayed Fluorescence Emitters in Excited States: A Computational Study

Sunwoo Kang, Sang Ho Jeon, Young Mi Cho, and Yong Jo Kim (Samsung Display Co., Ltds., Korea)

[03_11_1515]

Donor Effect on Multi-Resonance Type Thermally Activated Delayed Fluorescence

Jae Doh Park, Han Jong Yoo, Hyuna Lee, and Jang Hyuk Kwon (Kyung Hee Univ., Korea)

[03_11_1566]

A Study on the Optimization of the Configuration of Quantum Dot Films and the Reflecting Property of Reflection Films for Edge-Lit Backlights

Gi Jung Lee, Jung Gyun Lee (Hallym Univ., Korea), Younduk Kim, Taehee Park (Cheorwon Plasma Research Inst., Korea), Young Wook Ko (GLVISON Co., Ltd., Korea), and Jae-Hyeon Ko (Hallym Univ., Korea)

[03_11_1567]

Simulation Study on the Improvement of Luminance and Color Uniformities of Advanced Backlight Units based on Quantum Dots

Jung Gyun Lee and Jae-Hyeon Ko (Hallym Univ., Korea)

[03_11_1629]

Collimation and Homogenization of Light for LED Based Systems.

Souptik Mukherjee, Li Anran, and Abhishek K. Srivastava (HKUST, Hong Kong)

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[03_11_2009]

Investigation of Generated Aggregation by a Strong Dipole Moment of Antibiotics for the Efficiency Enhancement of Organic LightEmitting Diodes

Dong Hyun Kim, Chang Min Lee, Hyung Ju Chae, Jun Su Yang, Gyu Chan Lee, Ui Jun Lee, and Seung Yoon Ryu (Korea Univ., Korea)

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Topic Title:	12. Micro-LEDs
Session Title:	01. Micro-LED Epitaxy, Chip Fabrication & Transfer, and Characteristics for Display Applications

[01_12_1772] [Invited]

Road to Ultimate Displays with MicroLED

Ying-Tsang Liu, Kuan-Yung Liao, and Yun-Li (Charles) Li (PlayNitride Display Co., Ltd., Taiwan)

[TBA] [Invited]

Micro-Transfer Printing of microLED Pixel Engines for Emissive Displays

Chris Bower (X-display, USA)

[TBA] [Invited]

Integration of III-V nanowire LEDs on Si

Katsuhiro Tomioka (Hokkaido Univ., Japan)

[01_12_1763] [Invited]

Making 3μm Chip Size Micro LED Display

Chieh-Ting Chen and Li-Yi Chen (Mikro Mesa Technology Co., Ltd., Taiwan)

[TBA] [Invited]

GaN-Based Nanowire Micro LEDs: Current Status, Prospects, and Challenges

Zetian Mi (Univ. of Michigan, USA)

[01_12_1788] [Invited]

MicroLEDs for Non-Display Applications

Ioannis (John) Kymissis, Zachary A. Lamport, Keith Behrman (Columbia Univ., USA), and Chang-Hyun Kim (Gachon Univ., Korea)

[01_12_1792] [Invited]

Direct Assembly of Micro LEDs and Their Thermal Management

Ju Seung Lee, Haeleen Hong, and Tae-il Kim (Sungkyunkwan Univ., Korea)

[01_12_1767] [Invited]

Toward Ultra-High-Resolution Micro/Nano-LED Display

Sanghyeon Kim and Dae-Myeong Geum (KAIST, Korea)

[01_12_1634]

Full-Color-LED Integration by Adhesive Bonding and Epitaxial Lift-Off

Seung-Hyun Mun, Soo-Young Choi, Je-Sung Lee, Woo-Lim Jeong, Kyung-Pil Kim, and Dong-Seon Lee (GIST, Korea)

[01_12_1682]

Micro-LED Display Enables Full-Screen Fingerprint Sensors

Woo-Rim Lee, Jongbin Kim, and Seung-Woo Lee (Kyung Hee Univ., Korea)

[01_12_1409]

Temperature-Dependent Efficiency Droop in InGaN/GaN Flip-Chip Blue Micro Light-Emitting Diodes

Abu Bashar Mohammad Hamidul Islam, Tae Kyoung Kim (Sunchon Nat'l Univ., Korea), Dae San Ahn, Dong-Soo Shin, Jong-In Shim (Hanyang Univ. ERICA, Korea), and Joon Seop Kwak (Sunchon Nat'l Univ., Korea)

[01_12_1653]

Transferable Micro-LED Epitaxy for Flexible Display Technology

Young Joon Hong (Sejong Univ., Korea)

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Topic Title:	12. Micro-LEDs
Session Title:	02. Poster Session 12

[02_12_1260]

Integrated Glass Based Mini LED Backlight

Ruoyu MA, Zezhou Yang, Liangliang Jin, Zhongbao Wu, and Zilong Zhou (BOE Tech. Group Co., Ltd., China)

[02_12_1402]

Effect of Current Stress on the Optoelectronic Performances of InGaN-Based Flip-Chip Blue Micro Light-Emitting Diodes

Tae Kyoung Kim, Abu Bashar Mohammad Hamidul Islam (Sunchon Nat'l Univ., Korea), Dae San Ahn, Dong-Soo Shin, Jong-In Shim (Hanyang Univ. ERICA, Korea), and Joon Seop Kwak (Sunchon Nat'l Univ., Korea)

[02_12_1477]

Development of Metapad for Micro-LED Transfer

Jung Yup Kim (KIMM, Korea), Sejeong Won (CAMM, Korea), Yun Hwangbo, Jae-Hyun Kim (KIMM, Korea), and Hak-Joo Lee (CAMM, Korea)

[02_12_1519]

Stretchable Micro-Light Emitting Diode Arrays for Color Sensing Systems

Shin Park, Su Eon Lee, Jun Hyun Park, Young Chun Ko, Hye Young Kim, Sun Hee Lee, Jun Pyo Hwang, Seung Won Seon, Tae Sang Yu, and Bong Hoon Kim (Soongsil Univ., Korea)

[02_12_1656]

Effect of ITO Treatment on Improving the Carrier Transport in Ag/p-GaN Interface of InGaN/GaN Micro-LEDs by Originating Inhomogeneous Schottky-Barrier-Height

Tae Kyoung Kim, Abu Bashar Mohammad Hamidul Islam, and Joon Seop Kwak (Sunchon Nat'l Univ., Korea)

[02_12_1667]

The Transfer Process of the Lateral Type Vertical Type Micro LEDs

Jun-Beom Park and Tak Jeong (KOPTI, Korea)

[02_12_1722]

Light Output Characteristics of Vertical Type AlGaInP-Based Red LEDs with Various Mesa Sizes

Je-Sung Lee, Seung-Hyun Mun, Jinsoo Kim, and Dong-Seon Lee (GIST, Korea)

[02_12_2010]

Flexible Vertical GaN MicroLEDs for Transparent Biomedical Stimulator

Sang Hyun Park (KAIST, Korea), Han Eol Lee (Massachusetts Inst. of Tech., USA), and Keon Jae Lee (KAIST, Korea)

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Topic Title:	13. LC Technology and Electro-Optic Materials
Session Title:	01. LC Technology

[01_13_1611] [Invited]

Sub-Millisecond In-Plane Retardation Switching Behavior by Smectic Single Domain (SSD) Liquid Crystals

Akihiro Mochizuki (i-CORE Tech., LLC., USA)

[01_13_1206] [Invited]

Ultra-Narrow-Border Display Using Plastic LCDs

Shinichiro Oka, Yosuke Hyodo, Lu Jin, Genki Asozu, Hiromi Kaneda, Kazuhide Mochizuki, Marina Mochizuki, Yoshiro Aoki, and Naoyuki Asano (Japan Display Inc., Japan)

[01_13_1340]

Electrically Tunable Narrow Bandwidth Bandpass Filter

Ramesh Manda, Srinivas Pagidi, Young Jin Lim, and Seung Hee Lee (Jeonbuk Nat'l Univ., Korea)

[01_13_1596]

Fast Grey-to-Grey Switching of an Asymmetrically-Anchored Liquid Crystal Cell

Yeongyu Choi, Ho-Jin Sohn, and Tae-Hoon Yoon (Pusan Nat'l Univ., Korea)

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Topic Title:	13. LC Technology and Electro-Optic Materials
Session Title:	02. Display Optical Components

[TBA] [Invited]

Design and Manufacturing of Flat Micro-Optical Devices

Qihuo Wei (Southern Univ. of Science and Tech., USA)

[TBA] [Invited]

Dielectrophoresis in Liquid Crystal and its Applications for Optical Devices

Jang-Kun Song (Sungkyunkwan Univ., Korea)

[02_13_1687]

Thermally Stable Quantum Rods On-Chip LED with High Efficacy for LCD Backlight Application

Chengbin Kang, M.F. Prodanov, V.V. Vashchenko, M.Y. Diakov, S.K. Gupta, and A.K. Srivastava (HKUST, Hong Kong)

[02_13_1636]

Stokes Polarimetry for Measuring In-Plane and Out-of-Plane Retardation

Jongyoon Kim and Ji-Hoon Lee (Jeonbuk Nat'l Univ., Korea)

[02_13_1648]

Optical Anisotropy Control of Retarder Film Depending on Reactive Dopant Concentration

Jimin Park and Ji-Hoon Lee (Jeonbuk Nat'l Univ., Korea)

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Topic Title:	13. LC Technology and Electro-Optic Materials
Session Title:	03. Electrooptical Materials

[03_13_1735] [Invited]

Optically and Electrically Switchable Scattering- and Absorption-Mode Liquid Crystal Light Shutters

Ko-Ting Cheng, Jyun-Cong Lai, Wen-Fa Cheng, Cheng-Kai Liu, and Sharon Tan Fang Jie (Nat'l Central Univ., Taiwan)

[TBA] [Invited]

TBA

Su Seok Choi (POSTECH, Korea)

[03_13_1559]

Low-Voltage Fast-Switchable FLC Dammann Grating for 3D-Imaging

Zhengnan YUAN, Zhibo SUN, H.S. KWOK, and A.K. SRIVASTAVA (HKUST, Hong Kong)

[03_13_1652]

Twist-Bend Nematic Phase: Hierarchy of Periodic Patterns

Vitaly P. Panov and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[03_13_1641]

An Efficient Broadband Metamaterial Absorber in Mid-Infrared Region

Phuc Toan Dang (Jeonbuk Nat'l Univ., Korea), K. Q. Le, T. K. Nguyen (Ton Duc Thang Univ., Vietnam), and Ji-Hoon Lee (Jeonbuk Nat'l Univ., Korea)

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Topic Title:	13. LC Technology and Electro-Optic Materials
Session Title:	04. Poster Session 13

[04_13_1162]

Moving Image Quality Analysis of Liquid Crystal Display based on Human Perception

Zhenping Xia, Yu Song, Cheng Cheng, and Fuyuan Hu (Suzhou Univ. of Science and Tech., China)

[04_13_1207]

A Transparent Screen based on Polymer Network Liquid Crystal

Zhiqing Shi, Zhengyu Feng, Surgaltu Borjigin, Limei Zeng, Pojen Chiang, Dongze Li, Tsunglung Chang, Shujhih Chen, Chiayu Lee, and Xin Zhang (CSOT Co., Ltd., China)

[04_13_1342]

Modeling of Frequency Tunable Patch Antenna for Minimal Liquid Crystal

Dowon Kim, Kitae Kim, Hogyeong Kim, Moonyoung Choi, and Jun-Hee Na (Chungnam Nat'l Univ., Korea)

[04_13_1344]

High Definition Pixelated Wrinkles based on Liquid Crystalline Polymer

Kitae Kim, Dowon Kim, Hogyeong Kim, Moonyoung Choi, and Jun-Hee Na (Chungnam Nat'l Univ., Korea)

[04_13_1373]

Doping-Dedoping Interplay for Fine Patterning/Stacking of All-Polymer Optoelectronic Devices

Juhee Kim and Dae Sung Chung (POSTECH, Korea)

[04_13_1446]

Enhanced Electro-Optical Properties of Polymer Encapsulated Isotropic Liquid Crystal Droplets by PEDOT:PSS Polymer

Jun Hyeok Lee, Srinivas Pagidi, Tae Hyung Kim, Gwan Yong Lee, Young Jin Lim, and Seung Hee Lee (Jeonbuk Nat'l Univ., Korea)

[04_13_1447]

Hysteresis-Free Electrically Tunable Photonic Band Gap Structure in Single Crystal Blue Phases

Hong Gwon Lee, Hyoung Soo Park, Ramesh manda, and Seung Hee Lee (Jeonbuk Nat'l Univ., Korea)

[04_13_1456]

Electro-Optical Property of Multi-Layered Carbon Nanotubes Polarizer for Photoalignment of Liquid Crystals

Yuri Won, Mira Jo, Hoon Sub Shin, Young Jin Lim, and Seung Hee Lee (Jeonbuk Nat'l Univ., Korea)

[04_13_1473]

Measuring the Effects of Aging in Liquid Crystal Displays

Kevin Kam, Tiantong Yu, and Ioannis Kymissis (Columbia Univ., USA)

[04_13_1582]

Electrochemical Analysis of Optical Performance Degradation in an Ion-Doped Liquid Crystal Cell under Long-Term Operation

Ho-Jin Sohn, Jeong-Ho Seo, Jae-Won Huh (Pusan Nat'l Univ., Korea), Eunjung Lim (LG Chem Ltd., Korea), and Tae-Hoon Yoon (Pusan Nat'l Univ., Korea)

[04_13_1605]

Estimation of Beads Distribution Inside an Electroactive Photonic Crystal System

Sungeun Park, Jinyoung Choi, and Wooksung Kim (POSTECH, Korea)

[04_13_1632]

Synthesis of Functional Coating Materials for Electronic Devices based on Fluorinated Siloxane/Polysilazane and their Surface Properties

Jeong Ju Baek, Sung Man Park, Gwang Sik Song, Young Hun Kim, Yeong Rang Kim, Ki Cheol Chang, Youn Jung Heo, Kyung Ho Choi, and Gyo Jic Shin (KITECH, Korea)

[04_13_1639]

Aggregation and Ordering Behavior of Lyotropic Chromonic Liquid Crystals on Polyimide Alignment Layer

Hyeong Wook Kim, Sang Hee Won (Korea Univ., Korea), Valery Kuzmin (Light Polymers Inc., USA), Bo Sung Kim (Korea Univ., Korea), and Sung Tae Shin (Korea Univ., Korea and Light Polymers Inc., USA)

[04_13_1646]

Birefringence Sign Conversion in Mixture of Rodlike and Cross-Shaped Reactive Molecules

Jiyeon Kim and Ji-Hoon Lee (Jeonbuk Nat'l Univ., Korea)

[04_13_1647]

Viewing Angle Dependence of Liquid Crystal Display on the R_{th} of the Substrate Film

Sumin Ahn and Ji-Hoon Lee (Jeonbuk Nat'l Univ., Korea)

[04_13_2011]

Fork Pattern Grating Film That Generates Multiple Orbital Angular Momentum Beam for Decoding/Demultiplexing

Jiseon Yang, Doyeon Lee, and Jang-kun Song (Sungkyunkwan Univ., Korea)

[04_13_2012]

Study on The Low Reflectivity of Display Module

Huizhong Zhu, Shenglin Sun, and Junguo Liu (BOE, China)

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Topic Title:	14. OLED Frontplanes
Session Title:	01. OLED Materials 1 – TADF

[01_14_1733] [Invited]

Non-Doped Blue Delayed Fluorescence Organic Light-Emitting Diodes Featuring Low Driving Voltage and High Brightness

Feng-Ming Xie, Shi-Jie Zou (Soochow Univ., China), Yan-Qing Li (East China Normal Univ., China), and Jian-Xin Tang (Soochow Univ., China)

[01_14_1773] [Invited]

Horizontally Oriented Thermally Activated Delayed Fluorescence (TADF) Emitters for Efficient OLEDs

Shaolong Gong (Wuhan Univ., China) and Chung-Chih Wu (Nat'l Taiwan Univ., Taiwan)

[01_14_1774] [Invited]

Chemical Origin Underlying the Intrinsic Stability of Thermally Activated Delayed Fluorescence Dopants

Youngmin You (Ewha Womans Univ., Korea)

[01_14_1411]

Transient Photoluminescence Simulations of Thermally Activated Delayed Fluorescence Host-Guest Systems

Siebe v. Mensfoort (Simbeyond B.V., The Netherlands), Christoph Hauenstein (Simbeyond B.V., The Netherlands and TU/e, The Netherlands), Stefano Gottardi, Harm v. Eersel (Simbeyond B.V., The Netherlands), and Reinder Coehoorn (TU/e, The Netherlands)

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Topic Title:	14. OLED Frontplanes
Session Title:	02. OLED Materials 2 – TADF

[02_14_1745] [Invited]

Design of Multi-Resonance Thermally Activated Delayed Fluorescence Materials for Organic Light-Emitting Diodes

Eli Zysman-Colman (Univ. of St Andrews, UK)

[02_14_1748] [Invited]

BF_2-Enabled TADF Materials for Efficient and Stable Green and Blue OLEDs

Guijie Li, Weiwei Lou, Feng Zhan, and Yuanbin She (Zhejiang Univ. of Tech., China)

[02_14_1564]

Highly Efficient Fluorescent and TADF Emitters for Deep-Blue OLEDs

Matthias Budzynski, Christian Kasparek, and Thomas Baumann (cynora GmbH, Germany)

[02_14_1471]

Highly Efficient Deep Blue Hyperfluorescence Organic Light Emitting Diode

Kijoon Yang, Hyuna Lee, Durai Karthik, Jaehong Ryu, and Jang Hyuk Kwon (Kyung Hee Univ., Korea)

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Topic Title:	14. OLED Frontplanes
Session Title:	03. OLED Materials 3

[03_14_1719] [Invited]

Phosphorescent OLED Materials with Breakthrough Spectral Line Shape and Operational Stability for Automotive Applications

Eric A. Margulies, Nicholas J. Thompson, Pierre-Luc T. Boudreault, Vadim I. Adamovich, Bert D. Alleyne, Michael S. Weaver, Julie J. Brown (UDC Inc., USA)

[03_11_1779] [Invited]

Design Rule of Ir(III) Complex for Highly Efficient OLEDs

Seung-Yeon Kwak, Byoungki Choi, and Sunghan Kim (Samsung Advanced Inst. of Tech., Korea)

[03_14_1787] [Invited]

Exceptionally High-Efficiency Deep Blue Fluorescent Nondoped OLED Materials and Device

Lei Wang (Huazhong Univ. of Science and Tech., China)

[03_14_1452]

Intrinsically Stretchable Elastomeric Composites for OLEDs

Hyein Ha, Young Jae Shim, and Min Chul Suh (Kyung Hee Univ., Korea)

[03_14_1429]

Patternable Semi-Transparent Cathode for Transparent Display Application

Han-un Park, Seong Keun Kim, Sang Won Jung, and Jang Hyuk Kwon (Kyung Hee Univ., Korea)

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Topic Title:	14. OLED Frontplanes
Session Title:	04. OLED Device Physics

[04_14_1742] [Invited]

Improving OLED Performance Through Semiconductor Dilution

Noel C. Giebink (Penn State Univ., USA)

[TBA] [Invited]

TBA

Dongdong Zhang (Tsinghua Univ., China)

[04_14_1765] [Invited]

Organic and Perovskite Light-Emitting Diodes: Emission Mechanisms and Highefficiency Devices

Dawei Di (Zhejiang Univ., China and Univ. of Cambridge, UK)

[04_14_1553]

High External Quantum Efficiency (>50%) and Long Lifetime (>30,000 h) Deep Blue Organic Light-Emitting Diodes

Won Jae Chung, Kyung Hyung Lee, Mina Jung (Sungkyunkwan Univ., Korea), Kang Mun Lee (Kangwon Nat'l Univ., Korea), Ho Cheol Park, Min-Sik Eum (Doosan Solus, Korea), and Jun Yeob Lee (Sungkyunkwan Univ., Korea)

[04_14_1298]

The Study of Optical and Electrical Effect of Doped Charge Injection and Generation Layer on Single and Tandem Blue Top-Emitting Organic Light-Emitting Diodes

Jaeyoung Park (ETRI, Korea and Hanbat Nat'l Univ., Korea), Jonghee Lee, Jae-hyun Lee (Hanbat Nat'l Univ., Korea), and Hyunsu Cho (ETRI, Korea)

[04_14_1294]

The Strategy to Enhance the Lifetime of Phosphor-Sensitized OLED Device: Multiscale Simulation

Sun Mi Choi, Sunwoo Kang, Sang Ho Jeon, Youngmi Cho, and Yongjo Kim (Samsung Display Co., Ltd., Korea)

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Topic Title:	14. OLED Frontplanes
Session Title:	05. OLED Display Manufacturing 1

[TBA] [Invited]

TBA

Remi Anemian (Merck, Germany)

[05_14_1405]

Parameter-Free OLED Device Simulations with Doped Injection Layers

Tobias Neumann, Franz Symalla (Nanomatch GmbH, Germany), Simon Kaiser, Artem Fediai, and Wolfgang Wenzel (Karlsruhe Inst. of Tech., Germany)

[05_14_1271]

Comprehensive Study on 3D Pixel Configuration Realizing High Efficiency OLED Display

Chung-Chia Chen, Hyunsung Bang, Wan-Yu Lin, Lisong Xu, Gang Yu, B. Leo Kwak, Robert Jan Visser (Applied Materials, Inc., USA), Yi-Ting Chen, Sheng-Wen Wen, Po-Hsiang Liao, Chang-Cheng Lee, Wei-Kai Lee, Chun-Wei Huang, Guo-Dong Su, Hoang Yan Lin, and Chung-Chih Wu (Nat'l Taiwan University, Taiwan)

[05_14_2016]

Ink Formulation for Stable Jetting and Patterning with Ternary Blends of Phosphorescent Emitters

Youjung Kang, Min Young Kim, Robert Bail, Chilwon Lee, and Byung Doo Chin (Dankook Univ., Korea)

[05_14_1670]

Quantifying Electro-Optical Cross-Talk in White OLED / Color Filter Displays

Chun-Yu Chou, Sandra Jenatsch, Roman Hiestand, Urs Aeberhard (Fluxim AG, Switzerland), and Beat Ruhstaller (ZHAW, Switzerland)

[05_14_1527]

The Trilogy for Improving Display Uniformity of AMOLED Foldable Notebook

Zhongjie Wang, Zhengde Lai, Suncun Li, Wenbo Chen, Zhongliu Yang, Guangran Guo, Puyu Qi, Ziliang Xue, Youxiong Feng, and Zhongjie Wang (BOE Tech. Group Co., Ltd., China)

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Topic Title:	14. OLED Frontplanes
Session Title:	06. OLED Display Manufacturing 2

[06_14_1782] [Invited]

High-Performance OLED Microdisplays Made with Multi-Stack OLED Formulations on WUXGA Backplanes

John Hamer, Marina Kondakova, Jeffrey Spindler, Robert Cupello, Suzannah Hamer, Michael Andre, Scott McClurg, Anatole Pleten, Bruno Primerano, David Scott, George Scherer, and Scott Stickel (OLEDWorks LLC, USA)

[06_14_1760] [Invited]

High-Resolution Hole Patterning of Organic and Hybrid Electronics for Sensors-in-Display Applications

Tung-Huei Ke (imec, Belgium), Chi-Ting Tsai (imec, Belgium and Nat'l Cheng Kung Univ., Taiwan), Gema Molina Alvarez, Erwin Vandenplas, Luis Moreno Hagelsieb (imec, Belgium), Hylke Akkerman, Santhosh Shanmugam, Albert van Breemen (Holst centre, The Netherlands), Pawel E. Malinowski, and Paul Heremans (imec, Belgium)

[06_14_1691]

Ultra-Efficient Organic Light-Emitting Diodes Using a High Refractive Index Micro-Lens Array

Jinouk Song and Seunghyup Yoo (KAIST, Korea)

[06_14_1218]

Breath Figure Patterned Microlens Array Films for Organic Light-Emitting Diodes Outcoupling

Sung Bin Park, Joo Woo Han (Pukyong Nat'l Univ., Korea), Chul Woong Joo (ETRI, Korea), Jonghee Lee (Hanbat Nat'l Univ., Korea), and Yong Hyun Kim (Pukyong Nat'l Univ., Korea)

[06_14_1204]

Organic Light Emitting Device with Asymmetric View-Angle Characteristic for Automotive Display Applications

Xing Huang, Xin Mou, Lin Zhang, Zheng-Mao Yu, Wen-Jie Hu, Cui-Cui Liang, and You-Xiong Feng (BOE Tech. Group Co., Ltd., China)

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Topic Title:	14. OLED Frontplanes
Session Title:	07. Poster Session 14

[07_14_1185]

Inorganic Thin-Film Encapsulation with a Low Temperature Process for Organic Light Emitting Diode (OLED) Application

Junmo Kim (GERI, Korea and Kumoh Nat'l Inst. of Tech., Korea), Myungchan An, Hyeoung Woo Bae, Kyoungtae Park, Yongwoo Kwon, Jungsik Koo (GERI, Korea), Wonho Lee (Kumoh Nat'l Inst. of Tech., Korea), and Donggu Lee (GERI, Korea)

[07_14_1188]

Acidic Polyester-Type Binder Polymers for Photolithographic Patterning of Black Pixel Define Layer in Organic Light Emitting Diode

Genggongwo Shi (CCTech., Korea), Kyeong Ha Baek (UNIST, Korea), Jeseob Kim (CCTech., Korea), and Lee Soon Park (UNIST, Korea)

[07_14_1189]

Synthesis of Methacrylated Polyimides and Application as Thermal Stabilizer for the Black Pixel Define Layer in Organic Light Emitting Diode

Genggongwo Shi (CCTech., Korea), Kyeong Ha Baek, and Lee Soon Park (UNIST, Korea)

[07_14_1191]

Synthesis and Electron Transporting Properties of Pyridine-Substituted Anthracene Derivatives for Organic Light-Emitting Diodes

Ki Ju Kim, Hakjun Lee, Kyo Min Hwang, Taekyung Kim, and Young Kwan Kim (Hongik Univ., Korea)

[07_14_1193]

Hybrid White QD-OLED with Stable $CIE_{x,y}$ Coordinates by Introducing of N-Type Modulation Layer

Hakjun Lee, Kyo Min Hwang, Ki Ju Kim, Young Kwan Kim, and Taekyung Kim (Hongik Univ., Korea)

[07_14_1194]

Hole Injection Properties of Inkjet-Printed OLED Displays Employing Double-Layered Bank Structure

Jiyoon Kim, Yool-Guk Kim, Donghoon Kwak, and Chang-Hee Lee (Samsung Display Co., Ltd., Korea)

[07_14_1219]

Enhanced Light-Outcoupling in ITO-Free Organic Light-Emitting Diodes Using Surface Nanostructure Embedded High-Refractive Index Polymers

Joo Won Han, Dong Woo Kim, Kwon Taek Lim, and Yong Hyun Kim (Pukyong Nat'l Univ., Korea)

[07_14_1249]

Highly Polarized Emission in a Mixture of Mesogenic Compounds

Jin-Kyung Han, Chang-Jae Yu (Hanyang Univ., Korea), E-Joon Choi (Kumoh Nat'l Inst. of Tech., Korea), and Jae-Hoon Kim (Hanyang Univ., Korea)

[07_14_1254]

Origin of Relaxation Frequency Change in Blue Organic Light-Emitting Diodes

Yeeun Kim, Inyeob Na, Youkyung Seo (Sookmyung Women's Univ., Korea), Heeyoung Chae, Kilhwan Oh, Joonyoung Yang, Sooyoung Yoon (LG Display Co., Ltd., Korea), and Min-Kyu Joo (Sookmyung Women's Univ., Korea)

[07_14_1255]

Contact Resistance and Trap Energy Degradation in Blue Organic Light-Emitting Diodes

Youkyung Seo, Inyeob Na, Yeeun Kim (Sookmyung Women's Univ., Korea), Heeyoung Chae, Kilhwan Oh, Joonyoung Yang, Sooyoung Yoon (LG Display Co., Ltd., Korea), and Min-Kyu Joo (Sookmyung Women's Univ., Korea)

[07_14_1311]

Solution Processed Doping for Poly(3,4-Ethylenedioxythiophene)-Poly(Styrenesulfonate) Hole Injection Layer of Organic Light-Emitting Diodes

Jae-Min Yoo, Gunel Huseynova, Baek-Sang Sung, Seung-Hoon Lee, Jang Won Lee, Seung Wan Woo (Hanbat Nat'l Univ., Korea), Yong Hyun Kim (Pukyong Nat'l Univ., Korea), Jae-Hyun Lee, and Jonghee Lee (Hanbat Nat'l Univ., Korea)

[07_14_1336]

3 Stack Top Emitting Tandem White Organic Light Emitting Diodes for High Resolution Micro Display

Chur-Hyun Shin and Seung Hyun Lee (KETI, Korea)

[07_14_1389]

Colored Electrodes for Blue Phosphorescent Organic Light-Emitting Diodes

Gunel Huseynova, Young-Ji Lim, Akpeko Gasonoo (Hanbat Nat'l Univ., Korea), Chul Woong Joo (ETRI, Korea), Jae-Min Yoo, Seung-Hoon Lee (Hanbat Nat'l Univ., Korea), Jaeyoung Park (Hanbat Nat'l Univ., Korea and ETRI, Korea), Nam Sung Cho (ETRI, Korea), Yong Hyun Kim (Pukyong Nat'l Univ., Korea), Jonghee Lee, and Jae-Hyun Lee (Hanbat Univ., Korea)

[07_14_1422]

Micropatterning of Green and Red Emitting Layers through Photolithography

Yu Min Choi, Han Young Shin, Euiho Lee (Univ. of Seoul, Korea), Jongchan Son, Chunhee Park, Jin-Kyun Lee (Inha Univ., Korea), Byung Jun Jung (Univ. of Seoul, Korea)

[07_14_1425]

Visible Parylene Film as Conformal Light Extraction Layer for Improving the Outcoupling Efficiency and Spectral Stability of Bottom-Emitting OLEDs

Akpeko Gasonoo, Ye-Seul Lee, Ji-Hyeon Yoon, Baek-Sang Sung, Yoonseuk Choi, Jonghee Lee, and Jae-Hyun Lee (Hanbat Nat'l Univ., Korea)

[07_14_1428]

Passivation for Organic Light-Emitting Diodes Using Cyclo-Olefin Polymer Film for Flexible Display

Ji-Hoon Park, Byung-Min Park, and Kwan-Young Han (Dankook Univ., Korea)

[07_14_1430]

Optical Spectroscopic Analysis of Hole-Transporting Organic Molecules with Electrocheminal Methods

Seo-Yoon Lee, Young-Ji Lim, Jonghee lee, and Jae-Hyun Lee (Hanbat Nat'l Univ., Korea)

[07_14_1448]

The Effect of Molecular Structure of Host Materials for Solution Processed OLEDs

Da Hwan Lee, Ja Yeon Lee, and Min Chul Suh (Kyung Hee Univ., Korea)

[07_14_1455]

The White Perovskite Quantum Dot LED

Jungwon Kim, Min Woo Hyeon, Thi Na Le, and Min Chul Suh (Kyung Hee Univ., Korea)

[07_14_1457]

Improved White Angle Difference of Microcavity OLEDs by Applying Nano-Islands Formed beneath Anode

Jae Ho Song, Dae Yeong Kim, Eunyoung Park, and Min Chul Suh (Kyung Hee Univ., Korea)

[07_14_1601]

Improved Barrier Property and Controllability of Laterally Mixed Nanostructure Using Plasma-Enhanced Atomic Layer Deposition

Dong-Yeon Kim, Ju-Hwan Han, and Jin-Seong Park (Hanyang Univ., Korea)

[07_14_1633]

Nano-Hole Arrays for Efficient Light Extraction in Perovskite Light-Emitting Diodes

Jee-Won Jung, Young-Jin Jung, Seung-Taek Lee, Youn-Seob Shin, and Jeong-Hwan Lee (Inha Univ., Korea)

[07_14_1640]

Highly Efficient Dual-Gate Oranic Light-Emitting Transistors

Seung-Taek Lee, Young-Jin Jung, Jee-Won Jung, Youn-Seob Shin, Jeong-Hwan Lee (Inha Univ., Korea)

[07_14_1690]

Highly Efficient Blue Thermally Activated Delayed Fluorescence with Ortho-Donor Appended Cyclic Boryl Acceptor

Woochan Lee (KAIST, Korea), Hanif Mubarok, Taehwan Lee, Jaehoon Jung, Min Hyung Lee (Univ. of Ulsan, Korea), and Seunghyup Yoo (KAIST, Korea)

[07_14_2014]

Color Purity Control of Bottom-Emission Organic Emitting Diodes Using Semireflective Metal Thin Film

Dong-pil Park, Won-hyeok Park, and Sang Soo Kim (Sungkyunkwan Univ., Korea)

[07_14_2015]

Device Engineering of Blue Hyperfluorescence OLED Using TADF Sensitizer and Boron Type Dopant Materials

Hui Jae Choi, Young Ho Shin, Chil Won Lee, and Byung Doo Chin (Dankook Univ., Korea)

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Topic Title:	15. Touch and UI/UX Displays
Session Title:	01. User-Interactive Display & Sensors

[TBA] [Invited]

Self-Powering Electronics and Display via Triboelectrification

Sang Woo Kim (Sungkyunkwan Univ., Korea)

[TBA] [Invited]

Triboelectrification as an Efficient Tool for Self-Powered Applications

Zong-Hong Lin (Nat'l Taiwan Univ., Taiwan)

[TBA] [Invited]

Flexible, Large-Area Covert/Overt Displays based on Structural Colors

Young Min Song (GIST, Korea)

[01_15_1354]

A Machine-Learning Based Cross-Reactive Sensor Arrays for Next Generation Interactive Displays

Jun Ho Lee, Yoon-Jeong Kim, Keon woo Lee, Young woo Jang, and Sung Kyu Park (Chung-Ang Univ., Korea)

[01_15_1463]

Acoustic Imaging Representation Using a Sequentially Coupled Analysis for Ultrasonic FoDs

Hyun Sung Park, Hyundo Shin, Jisoo Kim, Yudeok Seo, Dongjing Seo, and Yongjo Kim (Samsung Display Co., Ltd., Korea)

[01_15_1518]

Flexible Ultrasound Device Array Compatible to Large Area Displays for Mid-Air UI/UX Application

Yongbin Jeong, Christopher Chare (IMEC, Belgium and ESAT, Belgium), Pieter Gijsenbergh, Veronique Rochus (IMEC, Belgium), Paul Heremans (IMEC, Belgium and ESAT, Belgium), and David Cheyns (IMEC, Belgium)

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Topic Title:	15. Touch and UI/UX Displays
Session Title:	02. Next-Generation Soft Touch & Haptics

[02_15_1734] [Invited]

Piezo/Triboelectric Potential Modulated Semiconductor Devices

Qijun Sun (Chinese Academy of Sciences, China)

[TBA] [Invited]

TBA

Jeong-Yun Sun (Seoul Nat'l Univ., Korea)

[02_15_1784] [Invited]

Optical and Thin Film Approaches to Mechanical Sensing

Zachary A. Lamport, Keith Behrman, Marco R. Cavallari, Kevin Kam, Christine K. McGinn, Pedro Piacenza, Benedikt Schifferer (Columbia Univ., USA), Caroline Yu (Apple, USA), Matei Ciocarlie, and Ioannis Kymissis (Columbia Univ., USA)

[02_15_1674]

Novel Approach of Amine-Functionalized Polymer Semiconductor Network for NO2 Chemotransistor with Remarkable Sensitivity and Recovery

Hyukmin Kweon, Jaehee Kim, Han Wool Park, Pureunsan Go, Joo Sung Kim, and Do Hwan Kim (Hanyang Univ., Korea)

[02_15_1712]

Flexible Diketopyrrolopyrrole-Polymer/Metal-Oxide Hybrid Phototransistors for Low-Power Physiological Monitoring

Byung Ha Kang, Sujin Jung, Kyungho Park, Dong Hyun Choi (Yonsei Univ., Korea), Mike Hambsch (TU Dresden, Germany), and Hyun Jae Kim (Yonsei Univ., Korea)

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Topic Title:	15. Touch and UI/UX Displays
Session Title:	03. Poster Session 15

[03_15_1288]

Intrinsically Strain-Insensitive, Hyperelastic Temperature-Sensing Fiber with Compressed Micro-Wrinkles for Integrated Textronics

Jihyun Lee, Da Wan Kim, and Changhyun Pang (Sungkyunkwan Univ., Korea)

[03_15_1289]

Flexible Piezoelectric Nanocomposites Device with Microhairy Structure for Energy Harvesting

Ja Yun Choi, Sungwoo Chun, and Changhyun Pang (Sungkyunkwan Univ., Korea)

[03_15_1442]

Analysis and Improvement of Defective Whine on Touch Screen

Peirong Huo, Shun Zhao, Delong Zhong, Zhiqiang Wang, and Jingyi Xu (Ordos Yuansheng Optoelectronics Co., Ltd., China)

[03_15_1449]

Development of Touch Screen Panel(TSP)-Based Bio-Sensing Technology

Yuna Kim, Boram Choi, Soojung Lee, Seungwook Chun, Chul Kim, WonSang Park, and Bonghyun You (Samsung Display Co., Ltd., Korea)

[03_15_1621]

Hydrogen Bond-Triggered Mechanotransduction in Synthetic Multicellular Hybrid Ion Pump for Ultrasensitive Ionic Skin

Joo Sung Kim, Hanbin Choi, Hyukmin Kweon, and Do Hwan Kim (Hanyang Univ., Korea)

[03_15_1666]

High-Performance Ionic Polymer-Metal Composite Based Mechanotransducer for Soft Haptic Feedback

Hanbin Choi, Joo Sung Kim (Hanyang Univ., Korea), Yongchan Kim, Changhyeon Cho, Hojin Lee (Soongsil Univ., Korea), and Do Hwan Kim (Hanyang Univ., Korea)

[03_15_1701]

Interactive 360° Viewable Holographic Tabletop Display by Hand Gestures

Jaehan Kim, Sungbae Cho, and Jinwoong Kim (ETRI, Korea)

[03_15_1702]

Enhancement in Sensitivity of Flexible Capacitive Pressure Sensors by Using Double-Layered Elastomeric Dielectric

Jeong Sik Na and Tae Hoon Lee (Kwangwoon Univ., Korea)

[03_15_2017]

Conformal Fingertip Sensor Using in-situ Human Tactile Perception Analysis Method

Minhoon Park (KRISS, Korea), Je-Jung Kim (Yonsei Univ., Korea), Bo-Gyu Bok (KRISS, Korea), Jong-Hyun Ahn (Yonsei Univ., Korea), and Min-Seok Kim (KRISS, Korea)

[03_15_2018]

Enhanced Actuating Deflection Using Analytical Study of Multilayered Structure

Jun Hyuk Shin, Su An Lee, and Su Seok Choi (POSTECH, Korea)

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Topic Title:	16. Quantum Dots
Session Title:	01. Photophysical Properties of QDs

[01_16_1365] [Invited]

Learnings from Fluorescence Lifetime and Intensity Distribution of Quantum Dots

Sungmin Park, Jeongmin Lee, Sanghwa Moon, and Kyoungwon Pak (KETI, Korea)

[01_16_1482]

III-V Semiconductor Nanocrystal Quantum Emitters

Donghyo Hahm, Seong Pil Huh, Jisoo Park, Joonha Hwang, Kee Young Lee, Dongju Jung, and Wan Ki Bae (Sungkyunkwan Univ., Korea)

[01_16_1614]

Highly Lattice Mismatched $ZnSe_{1-x}Te_x$ Alloy Quantum Dots for Blue to Yellow Light-Emitting Diodes

Jun Hyuk Chang, Hak June Lee, Jeong Woo Park, Doyoon Shin, and Wan Ki Bae (Sungkyunkwan Univ., Korea)

[01_16_1699]

Facile Synthesis of ZnSe Based Blue Quantum Dots with High Color Purity Using Gradient Shelling Method and their Display Devices

Woon-Ho Jung, Chil Won Lee, Jong-Gyu Kim, Jang Sub Kim, and Byung Doo Chin (Dankook Univ., Korea)

[01_16_1770] [Invited]

Colloidal Quantum Dot Light-Emitting Diodes with an Integrated Optical Cavity toward Solution Processable Laser Diodes

Jeongkyun Roh (Pusan Nat'l Univ., Korea, and Los Alamos Nat'l Lab., USA), Young-Shin Park (Los Alamos Nat'l Lab., USA and Univ. of New Mexico, USA), Jaehoon Lim (Los Alamos Nat'l Lab., USA and Sungkyunkwan Univ., Korea), and Victor I. Klimov (Los Alamos Nat'l Lab., USA)

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Topic Title:	16. Quantum Dots
Session Title:	02. Down Conversion Application of Quantum Dots

[02_16_1747] [Invited]

Quantum Dot Luminescent Solar Concentrators: The Future of Energy

Hunter McDaniel (UbiQD, Inc., USA)

[02_16_1759] [Invited]

Core/Shell Quantum Dot Implemented Color Photovoltaic Modules: Lessons from Quantum Dot Displays

Hyung-Jun Song (Seoul Nat'l Univ. of Science and Tech., Korea), Byeong Guk Jeong, Donghyo Hahm (Sungkyunkwan Univ., Korea), Jun Young Kim (Gyeongsang Nat'l Univ., Korea), Sohee Jeong, and Wan Ki Bae (Sungkyunkwan Univ., Korea)

[02_16_1781] [Invited]

New Materials for High Color Gamut Displays

Mathias Rapphahn, Katharina Sievert (Litec-LLL GmbH a company of Merck, Germany), and Ingo Köhler (Merck KGaA, Germany)

[02_16_1720]

High Efficient QD Colour Converting on Blue OLED

Armin Wedel, Yohan Kim, Andre Gessner, Hyung Seok Choi, Jiyong Kim (Fraunhofer IAP, Germany), Chul Jong Han, Min Suk Oh, and Byungwook Yoo (KETI, Korea)

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Topic Title:	16. Quantum Dots
Session Title:	03. Electroluminescence of Quantum Dots I

[03_16_1736] [Invited]

Luminescent Nanomaterials and Devices for Display, Lighting and Photomedicine

Yajie Dong, Manuel A. Triana, and Caicai Zhang (Univ. of Central Florida, USA)

[03_16_1750] [Invited]

QLEDs : Form Materials, Devices to Inkjet Printing

Lei Qian, Chaoyu Xiang, Ruifeng Li, and Ting Zhang (Ninbo Inst. of Materials Tech. and Engineering, China)

[03_16_1721]

Efficiency Enhancement of InP-Based Inverted EL-QLEDs Utilizing ZnO/ZnMgO Bilayer as an Electron Transport Layer

Yohan Kim, Andre Gessner, Hyung Seok Choi, Jiyong Kim (Fraunhofer IAP, Germany), Chul Jong Han, Min Suk Oh, Byungwook Yoo (KETI, Korea), and Armin Wedel (Fraunhofer IAP, Germany)

[TBA] [Invited]

TBA

Yizheng Jin (Zhejiang Univ. of Tech., China)

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Topic Title:	16. Quantum Dots
Session Title:	04. Electroluminescence of Quantum Dots II

[04_16_1481] [Invited]

High-Resolution Patterning of Colloidal Quantum Dots via Light-Driven Ligand Crosslinking

Moon Sung Kang (Sogang Univ., Korea)

[04_16_1600]

Thermodynamic-Driven Polychromatic Quantum Dot Printing for Light-Emitting Diodes

Tae Won Nam, Moohyun Kim (KAIST, Korea), Yanming Wang (MIT, USA), Geon Yeong Kim, Wonseok Choi, Hunhee Lim, Kyeong Min Song, Min-Jae Choi, Duk Young Jeon (KAIST, Korea), Jeffrey C. Grossman (MIT, USA), and Yeon Sik Jung (KAIST, Korea)

[04_16_1498] [Invited]

Microcavity Structure for Highly Efficient Cadmium-Free Quantum Dot Light-Emitting Diodes

Jaehoon Kim, Jaehong Park, Jingoo Kang, Jaekook Ha, and Changhee Lee (Samsung Display Co., Ltd., Korea)

[04_16_1531]

Enhanced Performance of Quantum Dot Based Light-Emitting Diodes by Controlling Charge Confinement Property

Seunghyun Rhee, Jun Kyuk Chang, and Wan Ki Bae (Sungkyunkwan Univ., Korea)

[04_16_1208]

Improvement of Efficiency of Green InP Quantum Dot Light-Emitting Diodes by Employing Suitable Electron-Transporting Materials

Yukiko Iwasaki, Genichi Motomura, Kei Ogura, and Toshimitsu Tsuzuki (NHK STRL, Japan)

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Topic Title:	16. Quantum Dots
Session Title:	05. Poster Session 16

[05_16_1303]

Improvement of Ink-Jet Printed QLED Performance by Controlling Time-Dependent Characteristics of ZnO NPs ETL by IPL Post-Treatment

Young Joon Han (KITECH, Korea and Korea Univ., Korea), Kyung-Tae Kang (KITECH, Korea), Byeong-Kwon Ju (Korea Univ., Korea), and Kwan Hyun Cho (KITECH, Korea)

[05_16_1304]

Structural Analysis of InP/ZnSe/ZnS Core-Shell Quantum Dots by HR-TEM

Soon Mi Choi, Sanghyoung Lim, Doohyoung Lee, Myeong Kyu Park, and Nari Ahn (Samsung Display Co., Ltd., Korea)

[05_16_1346]

Electron Transporting Property Optimization for Quantum Dot Light Emitting Diodes

Hyunmi Doh, Jongwoo Shin, Myungjin Park, Sungwoon Kim, Jaekook Ha, and Chang Hee Lee (Samsung Display Co., Ltd., Korea)

[05_16_1367]

Highly Efficient Red InP-Based QLEDs via Surface Ligand Engineering of Core Formation Process

Wei Jiang and Heeyeop Chae (Sungkyunkwan Univ., Korea)

[05_16_1371]

Synthesis and Characterization of Tunable Blue Emitting Colloidal Gallium Nitride Quantum Dots

Gahyeon Kim, Yunchang Choi (Korea Univ., Korea), Hyunjin Kim (Hanyang Univ., Korea), Chiho Lee, Juhee Son (Korea Univ., Korea), Hionsuck Baik (KBSI, Korea), Sungnam Park (Korea Univ., Korea), Jaekyun Kim (Hanyang Univ., Korea), and Kwang Seob Jeong (Korea Univ., Korea)

[05_16_1390]

Degradation Mechanism in High Performance Inverted Red Indium Phosphide-Quantum Dot Light-Emitting Diodes

Su Jeong Kim, Dong Hyun Shin, Raju Lampande, Nagarjuna Naik Mude, and Jang Hyuk Kwon (Kyung Hee Univ., Korea)

[05_16_1391]

Highly Efficient Quantum Dot Light Emitting Devices with Organic/Inorganic Electron Transport Layers

Da-Young Park, Seong-Geun Kim, Ji-Ho Kang, and Dae-Gyu Moon (Soonchunhyang Univ., Korea)

[05_16_1496]

The Effect of Surface Ligand on Performance of Electroluminescence QD Device

Yun Ku Jung, Hye Kyoung Choi, Sung Woon Kim, Jae Kook Ha, and Chang Hee Lee (Samsung Display Co., Ltd., Korea)

[05_16_1516]

PbS Colloidal Quantum Dot SWIR Photodetectors with Rapid Thermal Annealing

Junyoung Jin (KIST, Korea and Korea Univ., Korea), Ji-hoon Kyhm (Dongguk Univ., Korea), Do Hyung Hwang, Kyung-Seok Lee (KIST, Korea), Tae-Yeon Seong (Korea Univ., Korea), and Gyu Weon Hwang (KIST, Korea)

[05_16_1520]

Investigation of Anomalous Emission Profile and Remedy for Spectrally-Narrow Green InP Quantum Dots

Yeong-Ho Choi, Donghyo Hahm, Jun Hyuk Chang, Wan Ki Bae (Sungkyunkwan Univ., Korea), Ju-Hyung Kim (Ajou Univ., Korea), and Jaehoon Lim (Sungkyunkwan Univ., Korea)

[05_16_1532]

Hole-Only Quantum Dot Light-Emitting Diode for Color-Tunable Pixel

Suk-Ho Song, Sung-Jae Park, Sang Soo Kim, and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[05_16_1547]

Angular Dependent Polarized Emission of Semiconductor Quantum Rods

GAO Yiyang, Kang Chengbin, Swadesh Kumar Gupta, and Abhishek Kumar Srivastava (HKUST, Hong Kong)

[05_16_1576]

The Efficiency Improvement of Quantum Rod Light Emitting Diode by Smooth Hole Transport Layer

Mallem Kumar, Maksym F. Prodanov, Bryan Siu Ting Tam, Valerii V. Vashchenko, and Abhishek K. Srivastava (HKUST, Hong Kong)

[05_16_1586]

Synthesis of Highly Stable Perovskite Quantum Dots Using Zinc-Trioctylphosphine-Oxide and their Light-Emitting-Diodes Application

Seungmin Baek (Ajou Univ., Korea), Seokwoo Kang (Kyung Hee Univ., Korea), ChaeYeon Son, Hyo Geun Gwon, Jin Soo Ha (Ajou Univ, Korea), Jongwook Park (Kyung Hee Univ., Korea), Sang-Wook Kim (Ajou Univ., Korea)

[05_16_1592]

Development of Non-Toxic Organic QD-LED based on the Self-Assembled Protein Peptide Nanosphere

Junekyun Park, Eunkyu Shin (Sungkyunkwan Univ., Korea), Jongwoo Park (Samsung Display Co., Ltd., Korea), and Yonghan Roh(Sungkyunkwan Univ., Korea)

[05_16_1594]

Investigation on Sub-Band Gap Operation Mechanism of Quantum Dot-Based Light-Emitting Diodes

Hyeonjun Lee (KAIST, Korea), Byeong Guk Jeong (Sungkyunkwan Univ., Korea), Doh C. Lee (KAIST, Korea), and Jaehoon Lim (Sungkyunkwan Univ., Korea)

[05_16_1604]

Stable Inverted Quantum Dot Light-Emitting Diode with Modified Electron Transport Layer

Yu Luo and Junbiao Peng (SCUT, China)

[05_16_1609]

Effect of ZnO NPs Surface Flatness on Inverted QLED Devices with Pixels Formed by Inkjet Printing Process

Youngwoo Lee (KITECH, Korea and Hanyang Univ. ERICA, Korea), and Young-Cheol Jeong (KITECH, Korea)

[05_16_1637]

Colloidal III-V Nanocrystals with Well-Defined Surfaces

Youngsik Kim, Eunhye Cho, Hamin Kim, Mahnmin Choi, and Sohee Jeong (Sungkyunkwan Univ., Korea)

[05_16_1643]

Near-Unity Photoluminescence Quantum Yield in II-VI Heterostructure ZnSeTe

JunHyuk Chang (Sungkyunkwan Univ., Korea), HakJune Lee (Seoul Nat'l Univ., Korea), and Wan Ki Bae (Sungkyunkwan Univ., Korea)

[05_16_1644]

The Synthesis of InAs Quantum Dots based on Continuous Growth Reaction

Seongmin Park, Taewan Kim, Sohee Jeong (Sungkyunkwan Univ., Korea)

[05_16_1655]

Small Organic Molecule Treatment ZnMgO NPs for High-Performance Quantum Dot Light-Emitting Diodes

Hongjoo Shin, Hyunjin Cho, and Yeon Sik Jung (KAIST, Korea)

[05_16_1663]

A Study of Random Micro-Structure to Improve the Light Out-Coupling Efficiency of QLEDs Devices

Hakjeon Kim (ETRI, Korea and Dankook Univ., Korea), Sooyoung Yeom, Kitae Kim (Chungnam Nat'l Univ., Korea), Won Jun Lee (Dankook Univ., Korea), Jun-Hee Na (Chungnam Nat'l Univ., Korea), and ByoungHwa Kwon (ETRI, Korea)

[05_16_1695]

Tunable Singlet-Triplet Energy Splitting of Graphene Quantum Dots

Minsu Park, Hyung Suk Kim, Hyewon Yoon, Jin Kim, Sukki Lee, Seunghyup Yoo, and Seokwoo Jeon (KAIST, Korea)

[05_16_1700]

Enhancement of Conventional QD-LED Device Properties by Introducing Hybrid Inorganic/Organic Bi-Layered Electron Transport Layer Using Environmentally Friendly InP/ZnSe/ZnS QDs.

Hyun Jun Kim, Min Young Kim, Ji Hye Kim, You Jung Kang, Woon Ho Jung, and Byung Doo Chin (Dankook Univ., Korea)

[05_16_2019]

High Resolution Quantum Dot Light Emitting Diode based on the Fine-Pitch-Nozzle Printing Process

Ji Hye Kim, Min Young Kim, Chil Won Lee, Byung Doo Chin (Dankook Univ., Korea)

[05_16_2020]

Diagnosis of Degradation in Quantum Dot Light-Emitting Diodes by Low Frequency Noise Analysis

Suhyeon Lee (Seoul Nat'l Univ., Korea), Kookjin Lee2 Gyu-Tae Kim (Korea Univ., Korea), and Jeonghun Kwak (Seoul Nat'l Univ., Korea)

[05_16_2021]

High Performance of Top-Emitting Red CdSe Quantum Dot Light-Emitting Diodes via Modified Surface Ligands

Geun Woo Baek (Seoul Nat'l Univ., Korea), Donghyo Hahm, Wan Ki Bae (Sungkyunkwan Univ., Korea), and Jeonghun Kwak (Seoul Nat'l Univ., Korea)

[05_16_2022]

Improvement of QLED Efficiency Using PCBM Doped PVK

Jae-Peel Chung, Jae-In Yoo, Suk-Ho Song, Sung-Jae Park, Sang-Soo Kim, and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[05_16_2023]

Photoluminescence of InP Based Red Quantum Dot Layer Using Electroluminescence of Blue PHOLEDs

Dongpil Park, Wonhyeok Park, and Sang Soo Kim (Sungkyunkwan Univ., Korea)

[05_16_2024]

Quantum Dot Arrays Control by Photo-Polymerization of Reactive Mesogen in Dielectrophoresis Medium

Vijay Kumar Baliyan, Bomi Lee, and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[05_16_2025]

TFB-Doped Quantum Dot Light-Emitting Diode for Charge Balance Improvement

Jae-In Yoo, Suk-Ho Song, Sung-Jae Park, Sang-su Kim, and Jang-Kun Song (Sungkyunkwan Univ., Korea)