

# IMiD 2020

The 20th International Meeting on Information Display  
August 25 - 28, 2020 / Online Conference

**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)

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[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)

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[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<sub>4</sub>-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), Konstantin Mischick (Amplitude System, France), and Han Gyuwan (Samsung Display Co., Ltd., Korea)

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[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)

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[03\_08\_1480]

## Study of Laser Patterning 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 Samsung 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)

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[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)