

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 α -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 Encapsulated 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 α -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)

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[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 Characteristics 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 α -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)

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[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 (Kyungsoong Univ., Korea)

[08_05_1589]

Photolithography-Free Fabrication of α -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 α -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)

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[08_05_1650]

Electrical Properties of Low-Temperature Top Gate InGaSnO Thin-Film Transistors with Al₂O₃ 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 α-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)

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[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)