Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-1] 14:00~15:30 Enhanced Performance of I-III-VI Type Quantum Dot-Light-Emitting Devices

through Introducing Alloyed Oxide Nanoparticle-Based Electron Transport

Layer

Chang-Yeol Han, Jong-Hoon Kim, Ki-Heon Lee, Dae-Yeon Jo, and Heesun Yang (Hongik Univ.,

Korea)

[P1-2] 14:00~15:30 In2O3 Overcoating on InP/ZnS Quantum Dots toward Improved Fluorescent

Stability

Jung-Ho Jo, Eun-Pyo Jang, and Heesun Yang (Hongik Univ., Korea)

[P1-3] 14:00~15:30 Polydispersity in Colloidal InP Nanocrystal Quantum Dots: Insights Obtained

from Dissolution Studies

Youngsik Kim, Kyungnam Kim, Sudarsan Tamang, and Sohee Jeong (KIMM, Korea)

[P1-4] 14:00~15:30 Enhanced Solution-Processed Quantum Dot Light Emitting Diodes with

Additional Organic Hole Transport Layer

Hye-Ryeon Jang, Yun-Soon Ka, and Woon-Seop Choi (Hoseo Univ., Korea)

[P1-5] 14:00~15:30 A Study of Efficient Charge Transfer in PbS Colloidal Quantum Dots Solids

Seung Jin Heo, Seokhyun Yoon, and Hyun Jae Kim (Yonsei Univ., Korea)

Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-6] 14:00~15:30 White Light Base on Blue Quantum Dot Light-Emitting Diodes Combine with

Yellow Phosphor

Ngoc Hung Vu, Seob Won, and Won Bin Im (Chonnam Nat'l Univ., Korea)

[P1-7] 14:00~15:30 Efficiently Fabricated Quantum Dot Film by Polymer-Free Nanoparticles

Adhesion Technique for Down-Conversion of Blue Light in Organic Light

Emitting Diode

Velu Arasu, Deok Su Jo, Bong Sung Kim, and Ho Kyoon Chung (Sungkyunkwan Univ., Korea)

[P1-8] 14:00~15:30 Optimization of Organic-Inorganic Hybrid Quantum Dot Light Emitting Diode

Based on ZnO NPs as ETL

Yun-Soon Ka, Hye-Ryeon Jang, and Woon-Seop Choi (Hoseo Univ., Korea)

[P1-9] 14:00~15:30 White Quantum Dot Light-Emitting Diodes with Improved Performance

Using Conjugated Polyelectrolyte

Heeyoung Jung, Myeongjin Park, Yeonkyung Lee (Seoul Nat'l Univ., Korea), Wan Ki Bae (KIST,

Korea), and Changhee Lee (Seoul Nat'l Univ., Korea)

[P1-10] 14:00~15:30 Synthesis of YF3:Yb3+/Er3+ Nanosheets and Their Upconversion

Luminescence

G.Murali, Tae Hyung Kim, Jee Hun Kim, Jae Myeong Lee, Sung Cheol Noh, Eun Jeong Shin (Chonbuk Nat'l Univ., Korea), Dong Kwon Lim (Korea Univ., Korea), and Seung Hee Lee (Chonbuk Nat'l Univ., Korea)

Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-11] 14:00~15:30 The Influence of the Dimensions of CdSe/Cd1-XZnXS Core/Shell Type-I

Heterostructured Quantum Dots on the Performances of Light-Emitting

Devices

Jun Hyuk Chang (Seoul Nat'l Univ., Korea), Byeong Guk Jeong (KAIST, Korea), Kookheon Char

(Seoul Nat'l Univ., Korea), and Wan Ki Bae (KIST, Korea)

[P1-12] 14:00~15:30 Transparent Cd-Free Quantum Dots Light Emitting Diodes with Inorganic

Oxide Charge Transport Layers

Hee Yeon Kim, Yu Jin Park, Byungwook Yoo, Jiwan Kim, Gun Wook You, Chul Jong Han, Sung Ho Lee, Myo Jung Choi (KETI, Korea), Christian Ippen, Armin Wedel (Fraunhofer Inst. for Applied

Polymer Research, Germany), Byeong-Kwon Ju (Korea Univ., Korea), and Min

[P1-13] 14:00~15:30 Tuned Reactivity Effects on the Structural and Optical Properties of Chemical

Composition Gradient Quantum Dots

Velu Arasu, Deoksu Jo, Bongsung Kim, and Hokyoon Chung (Sungkyunkwan Univ., Korea)

[P1-14] 14:00~15:30 Thermally Stable In-Ga-Zn-O Homojunction Formed by Plasma Treatment

with Substrate Bias for Self-Aligned Thin-Film Transistors

Yusaku Magari, Dapeng Wang, and Mamoru Furuta (Kochi Univ. of Tech., Japan)

[P1-15] 14:00~15:30 Silver Nanowires Based Stretchable Strain Gauge for Printed Electronics

Hyungdong Lee, Baekhoon Seong, and Doyoung Byun (Sungkyunkwan Univ., Korea)

Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-16] 14:00~15:30 Flexible Liquid Crystal Display for Wearable Smart Device

Yu-Hsien Lin, Wen-Yuan Li, Tai-Hsiang Huang, Jen-Kuei Lu, and Sugiura Norio (AU Optronics

Corp., Taiwan)

[P1-17] 14:00~15:30 Perchlorate-Doped PEDOT:PEG as an Additional Hole Injection Layer for Quantum-Dot Light Emitting Diodes

Sang Moo Lee, Jae Eun Cho, and Seong Jun Kang (Kyung Hee Univ., Korea)

[P1-18] 14:00~15:30 Transparent Electrodes Based on Carbon Nanomaterials for Liquid Crystal

Displays

Seung Won Shin, Yong Un Jung, Ki-Beom Kim, Suk-Won Choi, and Seong Jun Kang (Kyung Hee

Univ., Korea)

[P1-19] 14:00~15:30 Highly Sensitive, Wearable, and Multimodal All-Carbon Electronic Skin

Capable of Simultaneously Detecting Tactile and Biological Stimuli

So Young Kim, Sangsik Park, Do Hyung Park, Han Wool Park, and Do Hwan Kim (Soongsil Univ.,

Korea)

[P1-20] 14:00~15:30 Stretchable Transparent Capacitive Touch Sensors Based on Spin-Coated

Silver-Nanowire Composite Electrodes

Tae Young Choi, Byeong-Ung Hwang, and Nae-Eung Lee (Sungkyunkwan Univ., Korea)

Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-21] $14:00^{\sim}15:30$ The Effect of Width and Shape on the Fatigue Behavior of Metal Lines in

Flexible AMOLED Devices

Kun Hu, Sheng Gao, Qi Shan, Xiaolong Yang, Tingting Zhang, Li Lin, Xiaoyu Gao, and Xiuqi

Huang (Kunshan New Flat Panel Display Tech. Center Co., Ltd., China)

[P1-22] 14:00~15:30 Fabrication of Organic Light Emitting Diode on Aramid Paper Substrate

Yeonkyung Lee (Seoul Nat'l Univ., Korea), Jiyoung Song, Hyoseok Kim (Toray Chemical Korea Inc., Korea), and Changhee Lee (Seoul Nat'l Univ., Korea)

[P1-23] 14:00~15:30 Stretchable and Transparent Electrodes Using Hybrid Structures of

Graphene-Metal Nanotrough Networks with High Performances and

Ultimate Uniformity

Byeong Wan An, Byung Gwan Hyun, So-Yun Kim, and Jang-Ung Park (UNIST, Korea)

[P1-24] 14:00~15:30 Stretchable and Deformable LED Configurations Based on Inkjet-Printed

Chip-Bonding Technology

Junghwan Byun, Byeongmoon Lee, Eunho Oh, Sangwoo Kim, Hyunjong Kim, Seongdae Choi,

and Yongtaek Hong (Seoul Nat'l Univ., Korea)

[P1-25] 14:00~15:30 Skin-Inspired Stretchable Electronic Skins Differentiating Multi-Directional

Tactile Stimuli

Jonghwa Park, Youngoh Lee, and Hyunhyub Ko (UNIST, Korea)

Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-26] 14:00~15:30 CNT/Metal Hybrid Electrodes with Low Contact Resistance for Organic Thin

Film Transistors

Yu Seon Jeong, Jinwook Jung, Seung-Hyeon Jeong, and Chung Kun Song (Dong-A Univ., Korea)

[P1-27] 14:00~15:30 The Properties of Nitride on Efficient Field Emission Displays

Alireza Khorami (IRIB Univ., Iran) and Shirin Ghanbari (IRIB Technical Research Center, Iran)

[P1-28] 14:00~15:30 Large-Area Synthesis of MoS2 Thin Films by Atomic Layer Deposition

Jung Joon Pyeon, Cheol Jin Cho, Soo Hyun Kim, Chong-Yun Kang, and Seong Keun Kim (KIST,

Korea)

[P1-29] 14:00~15:30 Large-Area MoS2 Thin Layers Fabricated by Sulfurization with Thermal

Cracker

Dae-Hyung Cho, Woo-Jung Lee (ETRI, Korea), Seung Won Shin (Kyung Hee Univ., Korea), Jae-Hyung Wi, Won Seok Han, Sung-Bock Kim (ETRI, Korea), Seong Jun Kang (Kyung Hee Univ.,

Korea), and Yong-Duck Chung (ETRI, Korea)

[P1-30] 14:00~15:30 Polymer-Dispersed Liquid Crystal Devices with Graphene Electrodes

Hee Yeon Noh, Eun Kyung Gil, Byeongdae Choi, and Seok-Hwan Chung (DGIST, Korea)

Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-31] 14:00~15:30 Polarization Rotation of Visible Light by Graphene Stacks at Room

Temperature

Hong-Ki Park, Chang-Mook Lee, Hoon Jeong (Kyung Hee Univ., Korea), Wook Sung Kim, Chunki Kim, Joong Hwan Yang, Gee Sung Chae, Jinook Kim, In Byeong Kang (LG Display Co., Ltd.,

Korea), and Jaewu Choi (Kyung Hee Univ., Korea)

[P1-32] 14:00~15:30 The Effect of Various Passivation Layers to the Stability of the MoS2 Field-

Effect Transistor

Geonho Kim, Ah-Jin Cho, and Jang-Yeon Kwon (Yonsei Univ., Korea)

[P1-33] 14:00~15:30 The Research of Improving Pooling of LCM after THB

Xiaoge Bai, Jeff Lai, Xuehui Wang, William Yang, and Zhuo Zhang (InfoVision Optoelectronics

(Kunshan) Co., Ltd., China)

[P1-34] 14:00~15:30 Carrier Control of Defective Few-Layer MoS2 by Thiol Molecule

Chemisorption

Dong Min Sim, Soonmin Yim, and Yeon Sik Jung (KAIST, Korea)

[P1-35] 14:00~15:30 Electrical Properties of MoS2 TFTs with Different Layer Thickness

Ji Heon Kim, Tae Ho Kim, Na Liu, Jun Ho Ye, and Cheol Jin Lee (Korea Univ., Korea)

Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-36] 14:00~15:30 General Plasma Doping Strategy for Two-Dimensional Transition Metal

Dichalcogenides Based on Self-Assembled Nanostructures

Soonmin Yim, Dong Min Sim, and Yeon Sik Jung (KAIST, Korea)

[P1-37] 14:00~15:30 Optimized Pixel Design for Better Optical Margin

Pengcheng Zang, Song Fang, Jun Jiang, and Yanbin Qiao (InfoVision Optoelectronics (Kunshan)

Co., Ltd., China)

[P1-38] 14:00~15:30 Amorphous InGaZnO Thin Film Transistors with Sputtered Silver Electrodes

Qi Wu, Ling Xu, Jianeng Xu, Haiting Xie (Shanghai Jiao Tong Univ., China), Shan Li, Chang-Cheng Lo (Shenzhen China Star Optoelectronics Tech. Co., Ltd., China), A. Lien (TCL Corporate Research, China), and Chengyuan Dong (Shanghai Jiao Tong Univ., China)

[P1-39] 14:00~15:30 Positive Bias Stress in Flowing Drain Current-Induced Degradations in Self-

Aligned Top-Gate a-IZO TFTs

Sungju Choi, Jonghwa Kim, Jungmok Kim, Jun Tae Jang, Hara Kang, Dong Myong Kim, Sung-Jin Choi (Kookmin Univ., Korea), Jae Chul Park (Samsung Advanced Inst. of Tech., Korea), and Dae

Hwan Kim (Kookmin Univ., Korea)

[P1-40] 14:00~15:30 Analysis of Hump Characteristics Induced Self-Heating and Charge Trapping in Bottom-Gate Etch-Stopper a-IGZO TFTs after Simultaneous Positive Gate

and Drain Bias Stress

Jonghwa Kim, Jun Tae Jang, Sungju Choi, Jungmok Kim, Hara Kang, Sung-Jin Choi, Dong Myong Kim, and Dae Hwan Kim (Kookmin Univ., Korea)

Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-41] 14:00~15:30 Role of Organometallic Interface on Dynamic Photoresponse of Organic

Field-Effect-Transistor Under Illumination

Hea-Lim Park, Chang-Min Keum (Seoul Nat'l Univ., Korea), Min-Hoi Kim (Hanbat Nat'l Univ.,

Korea), and Sin-Doo Lee (Seoul Nat'l Univ., Korea)

[P1-42] 14:00~15:30 Organic Thin-Film Transistors Employing Hybrid Bilayer Gate Dielectric for

AMOLED Displays

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

[P1-43] 14:00~15:30 High Mobility Amorphous Zinc Oxynitride Thin Film Transistors Using

UV/Ozone Post-Treatment below 175 ℃

Kyung-Chul Ok, Hyun-Jun Jeong, Hyun-Mo Lee, and Jin-Seong Park (Hanyang Univ., Korea)

[P1-44] 14:00~15:30 Enhanced Charge Injection into an Organic Semiconductor in Top-Contact

Field-Effect Transistors with a Metal Oxide Buffer Layer

Byung-Eun Park, Eul-Yong Shin, Jaehyun Lee, Yoon-Seok Choi, and Min-Hoi Kim (Hanbat Nat'l

Univ., Korea)

[P1-45] 14:00~15:30 Development of Fluorinated Hybrid Dielectric Material for Printed Organic

Thin Film Transistors

Kwang Ho Kim (KETI, Korea), Young Tae Kim, Jin-Kyun Lee (Inha Univ., Korea), Hyung-Ho Park (Yonsei Univ., Korea), Sung Kyu Park (Chung-Ang Univ., Korea), and Byungwook Yoo (KETI, Korea)

Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-46] 14:00~15:30 Atomic Layer Deposited Indium Zinc Oxide Thin Films and the Associated

Device Performances

Seung-Hwan Lee, Jung-Hoon Lee, Sheng Jiazhen, and Jin-Seong Park (Hanyang Univ., Korea)

[P1-47] 14:00~15:30 Characterization and Optimization of Plasma-Enhanced Chemical Vapor

Deposited SiO2 Film as a Hydrogen Diffusion Barrier in Metal Oxide Thin-

Film Transistors

Sung Haeng Cho, Hee-Ok Kim, Oh-Sang Kwon, Eun-Sook Park, Jong-Heon Yang, Chi-Sun Hwang

(ETRI, Korea), and Sang-Hee Ko Park (KAIST, Korea)

[P1-48] 14:00~15:30 Influence of Atmosphere on Textile Resistive Switching Memory Woven with

Al and Carbon Fibers

An Jae Jo, Young Dae Seo, and Mi Jung Lee (Kookmin Univ., Korea)

[P1-49] 14:00~15:30 New Shift Register Circuit Scheme for Stable Output Using Oxide TFTs

Jae-Eun Pi, Sung Haeng Cho, Chun-Won Byun, Jong-Heon Yang, Ji-Hun Choi, Oh Sang Kwon,

Eun Suk Park, and Chi-Sun Hwang (ETRI, Korea)

[P1-50] 14:00~15:30 High Performance Bottom Contact Organic Thin Film Transistor

Sihan Wang, Eung-Kyu Park, Ji-Hwan Kim, Jin-Ho Kim, and Yong-Sang Kim (Sungkyunkwan

Univ., Korea)

Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-51] 14:00~15:30 Binder-Free Poly(3-hexylthiophene) (P3HT) Field-Effect Transistors for

Printed Electronics

Hyungdong Lee (Sungkyunkwan Univ., Korea), Yong Jin Jeong (POSTECH, Korea), Byoung-Sun Lee (Samsung Advanced Inst. of Tech., Korea), Seonuk Park (POSTECH, Korea), Hadi Teguh Yudistira (Sungkyunkwan Univ., Korea), Chwee-Lin Choong (Samsung Advanced Inst. o

[P1-52] 14:00~15:30 Analysis of Bright Spots Caused by PI Coating Defect for Fringe Field **Switching Liquid Crystal Display**

> Haiyun Lin, Yuekai Gao, Jingpeng Li, Xingxun Song, Zhenyu Xie, TAEYUP Min, and Xuezhi Zhang (Beijing BOE Optoelectronics Tech. Co., Ltd., China)

[P1-53] 14:00~15:30 Thin-Film Laser Lift-Off for Dual-Mode Display Application

> Jong-Heon Yang (ETRI, Korea), Sang Chul Lim (Gumi Electronics and Information Tech. Research Inst., Korea), Chun-Won Byun, Hyunkoo Lee, Byoung-Hwa Kwon, Jong Tae Lim, Seong M. Cho (ETRI, Korea), Seunghyup Yoo (KAIST, Korea), Sung Haeng Cho, and Chi-Sun Hw

[P1-54] 14:00~15:30 An Electrochemical Study on Copper Multi-Layer Wet Patterning in Phosphoric Acid Solution for LTPS and Metal-Oxide TFTs Application

> Byoung O Kim (Korea Aerospace Univ., Korea), Moo Soon Ko, IlJeong Lee (Samsung Display Co., Ltd., Korea), Jeorg Winkler (Plansee SE, Korea), and Jong Hyun Seo (Korea Aerospace Univ.,

Korea)

[P1-55] 14:00~15:30 Research an Evaluation Method of Flicker of TN Mode & Affect for Image

> Zheng Wang, Sean Kim, Lan Feng, Qingna Hou, Liyan Xu, Hongtao Lin, and Dong Liu (Beijing BOE Display Tech. Co., Ltd., China)

Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-56] 14:00~15:30 Research on Line Image Sticking for Large Size High Resolution TFT-LCD Panel

Lei Liu, Yanping Liao, Jiajia Song, Dianzheng Dong, Weitao Chen, Dan Wang, and Xibin Shao

(Beijing BOE Display Tech. Co., Ltd., China)

[P1-57] 14:00~15:30 Strains of LCD Panels Accumulated during Manufacturing and Shipping

Processes and Light Leakage Thereof

Ki-Yong Park and Jang-Kun Song (Sungkyunkwan Univ, Korea)

[P1-58] 14:00~15:30 Application of Mura Index Methods to L0 Grey State

Jaegeon You and Qian Jia (BOE Tech. Group Co., Ltd., China)

[P1-59] 14:00~15:30 PS and Array Topology Effect on LO Grey Mura

Jaegeon You, Fang Liu, and Hanjun Park (BOE Tech. Group Co., Ltd., China)

[P1-60] 14:00~15:30 Light Leakage Simulation of the Curved ADS LCD

Jaegeon You, Weili Zhao, and Xinxing Wang (BOE Tech. Group Co., Ltd., China)

Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-61] 14:00~15:30 Active Tail Improving Effects on the TFT Character

Xue Jing, Wu Hao, Cui Ziwei, and Xue Jing (Beijing BOE Optoelectronics Tech. Co., Ltd., China)

[P1-62] 14:00~15:30 The Luminance Measurement Method at Real Moving Pictures Using a High Speed Camera

Seung Won Jung, Jin Yong Kim, and Hyuk Nyun Kim (LG Display Co., Ltd., Korea)

[P1-63] 14:00~15:30 Analysis and Improvement of Side Mura Defect in TN Mode Liquid Crystal

Panel

Xiongjian Zhang, Ku Hyun Park, Yun Bok Lee, Chun Cheng Che, and Seung Kyu Lee (BOE Optoelectronics Tech. Co., Ltd., China)

[P1-64] 14:00~15:30 Fabrication of X-Ray Detector for Real Time Image Sensing with a-IGZO TFT

Hyoung-seok Choi, Myeong-ho Kim, Ji-hwan Jung, and Duck-kyun Choi (Hanyang Univ., Korea)

[P1-65] 14:00~15:30 Automatic Micro Defect Detection in Non-Repetitive Patterns for High-Resolution TFT-LCDs

Euiyeol Oh, Dae Keun Kim, Jong Sang Baek (LG Display Co., Ltd., Korea), and Yoonsik Choe (Yonsei Univ., Korea)

Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-66] 14:00~15:30 Image Quality Evaluation between Hardware Calibration and Software

Calibration on the Display

Hyun-Suh Kim (Chung-Ang Univ., Korea) and Howard Kim (Sungkyunkwan Univ., Korea)

[P1-67] 14:00~15:30 Factors Affecting Contrast Ratio & Cell VT Curve of Small Size TFT LCD

Hongjun Yu, Ziwei Cui, Yanyan Yin, Jing Xue, Bin Ma, Liang Zhao, and Hongyan Xing (BOE

Optoelectronics Tech. Co., Ltd., China)

[P1-68] 14:00~15:30 Elimination of Off-Axis Color Shift by Doping Dichroic Dyes in a Cholesteric

Liquid Crystal Device

Jun-Hee Park, Seung-Won Oh, and Tae-Hoon Yoon (Pusan Nat'l Univ., Korea)

[P1-69] 14:00~15:30 High-Transmittance Fast-in-Plane-Switching Negative-LC Cell with Double-

Sided Patterned Electrodes

Joon Heo, Tae-Hoon Choi, Jae-Won Huh, and Tae-Hoon Yoon (Pusan Nat'l Univ., Korea)

[P1-70] 14:00~15:30 Fast Switching of Nematic Liquid Crystals over a Wide Temperature Range for

Outdoor Applications

Tae-Hoon Choi, Young-Jin Park, Jung-Wook Kim, and Tae-Hoon Yoon (Pusan Nat'l Univ., Korea)

Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-71] 14:00~15:30 Method to Reduce Iridescent Reflection from LCD Panel with Fine Electrodes

Ho-Kil Oh and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[P1-72] 14:00~15:30 Adaptive Optically Isotropic Liquid Crystal Micro-Lens with Fast Switching

Ki Hoon Song, Jae Myeong Lee, Zuowei Zhou, Hongwen Ren, and Seung Hee Lee (Chonbuk

Nat'l Univ., Korea)

[P1-73] 14:00~15:30 Alignment of LCs Using Polyimide Doped with SiO2 Nanoparticles for a High-

Transmittance LCD

Byung Wok Park, Jun-Hee Park (Pusan Nat'l Univ., Korea), Ji-Hoon Lee (Chonbuk Nat'l Univ., Korea), Jonghyun Choi (The New Zealand Inst. of Plant and Food Research, New Zealand), and

Tae-Hoon Yoon (Pusan Nat'l Univ., Korea)

[P1-74] 14:00~15:30 Reversible Optical Storage Material Using Photo-Responsive Rod-Like

Molecules Nanosegregated in the B4 Structure of Achiral Banana-Shaped

Molecule

Kibeom Kim and Suk-Won Choi (Kyung Hee Univ., Korea)

[P1-75] 14:00~15:30 Low Laser Emission Energy in a Polymer Stabilized Blue Phase II

Seong-Yong Jo and Suk-Won Choi (Kyung Hee Univ., Korea)

Session Title: Poster Session I

August 20, 2015 (Thursday) Date:

Time: 14:00~15:30

[P1-76] 14:00~15:30 Investigation of Polymer Wall Structure Influence on Electro-Optical

Properties of Flexible Cholesteric LCDs

Yan Jin, Zhe Hong, and Soon-Bum Kwon (Hoseo Univ., Korea)

[P1-77] 14:00~15:30 Smart Reflector Using Photo-Luminescence Cholesteric Liquid Crystal Film

Dong-kun Lee, Jeong Min Choi, and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[P1-78] 14:00~15:30 **Dielectrophoretic Manipulation of Isotropic & Nematic Droplets**

Bomi Lee and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[P1-79] 14:00~15:30 **Polymer Stabilized Vertical Alignment Flexible Display**

> You Ri Kwon, Jong Chan Kim, Young Eun Choi, Jin Hyun Kim, Han Sol Choi, G. Murali, Young Jin Lim, and Seung Hee Lee (Chonbuk Nat'l Univ., Korea)

[P1-80] 14:00~15:30 Synthesis and Electronic/Optical Properties of Dimesogenic Asymmetric

Bent-Core Molecules

Sa-Wook Kim, Hak-Kyu Kim (Kumoh Nat'l Inst. of Tech., Korea), Hak-Rin Kim (Kyungpook Nat'l Univ., Korea), and E-Joon Choi (Kumoh Nat'l Inst. of Tech., Korea)

Session Title: Poster Session I

August 20, 2015 (Thursday) Date:

Time: 14:00~15:30

[P1-81] 14:00~15:30 Synthesis of Hockey Stick-Shaped Reactive Mesogens and Their E/O-Property

in VA Mode Cell

Myung-Ha Kim, Tae-Joon Park, E-Joon Choi (Kumoh Nat'l Inst. of Tech., Korea), You-Jin Lee, and

Jae-Hoon Kim (Hanyang Univ., Korea)

[P1-82] 14:00~15:30 Improvement of Off-Axis Gamma Distortion in Vertical Alignment Liquid

Crystal Mode Using Hybrid Pixel Electrode Structure

Jeong Min Bae, Min Kyu Park, Jin-Tae Kim, and Hak-Rin Kim (Kyungpook Nat'l Univ., Korea)

[P1-83] 14:00~15:30 Nanoparticles with High Permittivity Doped into Nano-Sized Polymer

Dispersed Liquid Crystals to Reduce Driving Voltage

Gyu-Yeop Shim, Hyun gyu Kim, Ji-Sub Park, Dong-Jin Lee (Kyungpook Nat'l Univ., Korea), Ji-Ho Baek, Joun-Ho Lee, Byeong Koo Kim (LG Display Co., Ltd., Korea), and Hak-Rin Kim (Kyungpook

Nat'l Univ., Korea)

[P1-84] 14:00~15:30 New Vertical Alignment Mode of Liquid Crystal Display with Reduced

Gamma Distortions by Periodic Patterns of Reactive Mesogens on Alignment

Layer

Se-Um Kim, Jiyoon Kim, Jeng-Hun Suh, Bo-Yeon Lee, and Sin-Doo Lee (Seoul Nat'l Univ., Korea)

[P1-85] 14:00~15:30 **Patterned Polymer Networks Formed in Nematic Liquid Crystals**

Vijay Kumar Baliyan, Sudarshan Kundu, Vineet Kumar, Seung Hee Lee, and Shin-Woong Kang

(Chonbuk Nat'l Univ., Korea)

Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-86] 14:00~15:30 Quantitative Analysis of Image Flickering in Negative Fringe-Field-Switching

Liquid Crystal Display: Effect of Flexoelectric Polarization and Impurity

Charge

Hyojin Lee and Ji-Hoon Lee (Chonbuk Nat'l Univ., Korea)

[P1-87] 14:00~15:30 The Study of Order Parameter in PS-VA Mode

Nakcho Choi, Minjung Oh, Yeogeon Yoon, and Namseok Roh (Samsung Display Co., Ltd., Korea)

[P1-88] 14:00~15:30 Vertical Alignment and Stabilization of Director Pre-Tilt of Nematic Liquid

Crystal Doped by Surface Modified Silica Nano-Particles

Vijay Kumar Baliyan, Pankaj Kumar, Moon Bee Oh, Seung Hee Lee, and Shin-Woong Kang

(Chonbuk Nat'l Univ., Korea)

[P1-89] 14:00~15:30 Polar Anchoring Energy of PS-VA Panel

Keunwoo Park, Nakcho Choi, Eunhee Han, Yeogeon Yoon, and Namseok Roh (Samsung Display

Co., Ltd., Korea)

[P1-90] 14:00~15:30 Orientation Ordering Analysis of Photo Alignment Panel in PLS Mode

Jehong Choi, Nakcho Choi, Yeogeon Yoon, and Namseok Roh (Samsung Display Co., Ltd., Korea)

Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-91] 14:00~15:30 Photoinduced In-situ Anchoring Transition from Random Planar to Uniform

Planar Using Photochromic Azo-Dye in a Nematic Liquid Crystal

Randhir Kumar Sinha, Sudarshan Kundu, Vineet Kumar, Myong-Hoon Lee, and Shin-Woong

Kang (Chonbuk Nat'l Univ., Korea)

[P1-92] 14:00~15:30 PI-less Vertical Alignment with a Predetermined Director Tilt Achieved by In Situ Photo-Irradiation of Obliquely Incident Unpolarized UV-Light

Randhir Kumar Sinha, Sudarshan Kundu (Chonbuk Nat'l Univ., Korea), Heung-Shik Park (Samsung Display Co., Ltd., Korea), Myong-Hoon Lee, and Shin-Woong Kang (Chonbuk Nat'l

Univ., Korea)

[P1-93] 14:00~15:30 In-situ Vertical Alignment of Nematic Liquid Crystals Using Photo-

Polymerizable Acrylate Mixtures

Sudarshan Kundu (Chonbuk Nat'l Univ., Korea), Heung-Shik Park, Jae-Jin Lyu (Samsung Display Co., Ltd., Korea), Aboozar Nasrollahi, and Shin-Woong Kang (Chonbuk Nat'l Univ., Korea)

[P1-94] 14:00~15:30 Nano-Encapsulated Liquid Crystal Display Mode with Reduced Driving

Voltage

Jung Ho Han, In-Haeng Lee, You-Jin Lee, Chang-Jae Yu, and Jae-Hoon Kim (Hanyang Univ.,

Korea)

[P1-95] 14:00~15:30 Alignment Stability of Uniformly Lying Helix Mode by Controlling Pretilt

Angle

Hyun Bae Park, Kyoung-Seeok Park, You-Jin Lee, Jae-Hoon Kim, and Chang-Jae Yu (Hanyang Univ., Korea)



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Time: 14:00~15:30

[P1-96] 14:00~15:30 Enhanced Color Reflector with the Micro Pattern Array

Geon Bae, Jun Min Yoon, Dong Bin Yeo, Dae Soo Kim (Hoseo Univ., Korea), Jang-Kun Song

(Sungkyunkwan Univ., Korea), and Chul Gyu Jhun (Hoseo Univ., Korea)

[P1-97] 14:00~15:30 Color Polymer Dispersed Liquid Crystal Device with Color Core-Shell

Structure

Dae Soo Kim, Dong Bin Yeo, and Chul Gyu Jhun (Hoseo Univ., Korea)

[P1-98] 14:00~15:30 LED Backlight with Special FOV for Automobile

Feng Qibin, Yin Huijuan (Hefei Univ. of Tech., China), Shi Zuchuan, Feng Qinggang, Li Dejun, Fang Xuedong (Hefei BOE Display Lighting Co., Ltd., China), and Lv Guoqiang (Hefei Univ. of

Tech., China)

[P1-99] 14:00~15:30 Slot Die Coating for Multilayer Organic Light-Emitting Diodes

Kwang-Jun Choi, Jin-Young Lee, Jin-Hwan Lee, Dongkyun Shin, Su-Ho Yoo, Kyung-Jun Jeon, and

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

[P1-100] 14:00~15:30 Factors that Affect the LED Color

Hebbe Wang, Jianing Wang, Zhuo Zhang, Chiu June, and Xixin Zhang (InfoVision

Optoelectronics (Kunshan) Co., Ltd., China)

Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-101] 14:00~15:30 ZigBee Light Link Based Wireless Lighting Control Design and

Implementation Using a Touchpad

Jongwoo Choi, Jung-Sik Sung, Seong-Hee Park, Hyun-Chul Kang, Hyun-Joo Kang, and Tae-Gyu

Kang (ETRI, Korea)

[P1-102] 14:00~15:30 The Method to Reconstruct RGBW LED Dimming Value for Ensuring Linearity

for Brightness of LED Lighting

Seonghee Park, Hyunchul Kang, HyeonJu Kang, Jongwoo Choi, Jung-Sik Sung, and Taegyu Kang

(ETRI, Korea)

[P1-103] 14:00~15:30 Temporal Changes in Optical Characteristics of White Light Emitting Diodes

Under UV Irradiation

Bong-Jin Cho, Ji-Sun Kim, and Jae-Hyeon Ko (Hallym Univ., Korea)

[P1-104] 14:00~15:30 Broadband Red, Green and Blue Light Sources for Speckle Noise Reduction

on Laser Projection Display

Seong-Jin Son, Ju Won Choi, Do-Kyeong Ko, and Nan Ei Yu (GIST, Korea)

[P1-105] 14:00~15:30 Fabrication of OLED Lighting Using Light Scattering Solution for Flexible OLED

Light Extraction

Dasom Song, Il-Ji Bae, Miyoung Kim, Bum-Joo Lee, and Jin-Koog Shin (KETI, Korea)

Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-106] 14:00~15:30 Improvement of Light Emitting Efficiency on Flip Chip LED with Patterned

Sapphire Substrate

Hyun Jung Park, Dong Kyu Lee, Yu-Jung Cha, and Joon Seop Kwak (Sunchon Nat'l Univ., Korea)

[P1-107] 14:00~15:30 Silicon Based UV Curable Sealant and Characterization of OLED Lighting

According to Moisture Scavenger Contents of Sealant

II-Ji Bae (KETI, Korea), Sun Ryu (Momentive Performance Materials Korea Co., Ltd., Korea),

Dasom Song, Miyoung Kim, Bum-Joo Lee, and Jin-Koog Shin (KETI, Korea)

[P1-108] 14:00~15:30 Implementation of the RSSI-Based Lighting Control System

Hyun-Chul Kang1, Jung-Sik Sung, Seong-Hee Park, Hyun-Joo Kang, Jong-Woo Choi, Tae-Gyu

Kang (ETRI, Korea)

[P1-109] 14:00~15:30 Fabrication of Phosphor-Converted White OLEDs with Internal & External

Light Extraction Techniques

Chanho Kim, Hyeon Jeong Kim, Youngki Chai, Seunghwan Lee, and Sung Min Cho

(Sungkyunkwan Univ., Korea)

[P1-110] 14:00~15:30 Application of Fuzzy Decision on Lighting

Alireza Khorami (IRIB Univ., Iran) and Shirin Ghanbari (IRIB Technical Research Center, Iran)

Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-111] 14:00~15:30 Selective Area Regrowth for Dual-Color-Emitting LEDs by MOCVD

Jun-Yeob Lee, Duk-Jo Kong, Chang-Mo Kang, and Dong-Seon Lee (GIST, Korea)

[P1-112] 14:00~15:30 Spectral Variation in YAG:Ce3+ Nanophosphor for White LED

Daehan Kim, Hyoungseak Jeong, Kwangwon Park, and Jongsu Kim (Pukyong Nat'l Univ., Korea)

[P1-113] 14:00~15:30 Yellow YAG:Ce Single Crystal Phosphor with High Thermal Stability for High-Power White Light Source

Taewook Kang, Heelack Choi (Pukyong Nat'l Univ., Korea), Youngsic Kim, Sunghoon Lee, Jeonggon Ryu (Hyosung Corp., Korea), Jaehyoung Park, Seokkyu Lim, and Jongsu Kim (Pukyong Nat'l Univ., Korea)

[P1-114] 14:00~15:30 Development of a "Sedimentation-Free" Phosphor for LED Color Bin Yield

Enhancement

Shih-Yi Wen, Tung-Yun Liu, and Chen-Peng Hsu (ITRI, Taiwan)

[P1-115] 14:00~15:30 Highly Color Rendering and Luminescent GaN-Based White LEDs with Red InP/ZnS Quantum Dots

Tae Hoon Kim, Young Moon Yu, and Jong Su Kim (Pukyong Nat'l Univ., Korea)

Session Title: Poster Session I

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[P1-116] 14:00~15:30 Colloidal Synthesis of Green-Emitting CdSeS/CdS Dot-in-Rod Structure for

Light-Emitting Device

Yewon Kim, Doh C. Lee (KAIST, Korea), and Wanki Bae (KIST, Korea)

[P1-117] 14:00~15:30 Study on Improvement of the Leakage-like Defect Problems in OLED Panel by

Off-Current Control of the Driving TFTs

Youl Kyu Lee, Daechoon Kim, Jaewoo Choi, and Sang Soo Kim (Sungkyunkwan Univ., Korea)

[P1-118] 14:00~15:30 Ultracompact Complex Spatial Light Modulation Pixel Using Plasmonic

Waveguides

Joonsoo Kim (Seoul Nat'l Univ., Korea), Hwi Kim (Korea Univ., Korea), and Byoungho Lee (Seoul

Nat'l Univ., Korea)

[P1-119] 14:00~15:30 Optical Phase Modulation Characteristics of Subwavelength Tilted Nano-Slit

Yohan Lee, Jongwoo Hong (Seoul Nat'l Univ., Korea), Hwi Kim (Korea Univ., Korea), and

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

[P1-120] 14:00~15:30 Plasmonic Wavefront Detection by the Use of Transport of Intensity Equation

Yongjun Lim (ETRI, Korea), Seung-Yeol Lee, Byoungho Lee (Seoul Nat'l Univ., Korea), Hyon-Gon

Choo, and Jinwoong Kim (ETRI, Korea)

Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-121] 14:00~15:30 Acoustic Properties of Polydimethylsiloxane as a Function of Pressure

Sunhyeop Shin, Jae-Hyeon Ko, Jaehoon Park (Hallym Univ., Korea), Young Ho Ko, and Kwang

Joo Kim (Agency for Defense Development, Korea)

[P1-122] 14:00~15:30 High Performance Transparent Conducting Electrode Film Using Surface-

Embedded Metal Nanotrough Network

Hyeon-Gyun Im (KAIST, Korea), Byeong Wan An (UNIST, Korea), Junho Jang (KAIST, Korea),

Jang-Ung Park (UNIST, Korea), and Byeong-Soo Bae (KAIST, Korea)

[P1-123] 14:00~15:30 Double-Layer Negative Dispersion Retarder Using Negative Birefringence

Materials

Seungbin Yang, Anoop Kumar Srivastava, and Ji-Hoon Lee (Chonbuk Nat'l Univ., Korea)

[P1-124] 14:00~15:30 Viewing Angle Property in Vertical Alignment Liquid Crystal Display Using a

Novel Negative C Plate

Hyungmin Kim, Seungbin Yang, Dong-Gue Kang, Kwang-Un Jeong, and Ji-Hoon Lee (Chonbuk

Nat'l Univ., Korea)

[P1-125] 14:00~15:30 Black Dye Doped LCD without Polarizers

Gi Heon Kim, Won-Jae Lee, and Yong Hae Kim (ETRI, Korea)

Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-126] 14:00~15:30 Characterization of Polymer Dispersed Liquid Crystal Having Dichroic Dyes

Gi Heon Kim, Won-Jae Lee, and Yong Hae Kim (ETRI, Korea)

[P1-127] 14:00~15:30 Electrochromic Device Using ZnO Nanowire

Han Na Kim (Univ. of Science and Tech., Korea), Seong-Mok Cho, Chil Seong Ah, Juhee Song, Yong Hae Kim (ETRI, Korea), and Tae-Youb Kim (Univ. of Science and Tech., Korea)

[P1-128] 14:00~15:30 Improvement of Light Out-Coupling Efficiency in Organic Light-Emitting Diodes with Micro-Lens Array

Se Hyuk Yeom, Sang Chul Lim, Myung Chan An, Dong Ic Lee, Gyeong-Tae Park, Chang Taek Seo, Gyu Seok Choi, and Heon Gon Kim (Gumi Electronics and Information Tech. Research Inst., Korea)

[P1-129] 14:00~15:30 Fine Width Metal Mesh Fabrication by the Ion-Beam Assisted Deposition(IBAD) for the Touch Screen Panel(TSP)

Bo-Sung Kim, Sang Hyun Cho, Sung Ho Lee (Daegu Technopark, Korea), Jaeho Lee (AT Co., Ltd., Korea), and Chan Seok Park (Daegu Technopark, Korea)

[P1-130] 14:00~15:30 Suppression of Moiré Fringes Induced by Metal Meshes for Touch Screen

Dongkyun Shin, Jin-Young Lee, Jin-Hwan Lee, Kwang-Jun Choi, Su-ho Yoo, Kyung-Jun Jeon, and Jongwoon Park (Korea Univ. of Tech. and Education, Korea)

Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-131] 14:00~15:30 A Diamond Hole Pattern with High Sensitivity and Linearity for Capacitive

Touch Screen Panels

SeungHee Han, Yoonsu Kang, Jihyun Lee, Dain Kim, and Yuseok Kang (Gyeonggibuk Science

High School, Korea)

[P1-132] 14:00~15:30 Flexible Pressure Sensor Array Based on Highly Elastic Porous Film

Bo-Yeon Lee, Jiyoon Kim, and Sin-Doo Lee (Seoul Nat'l Univ., Korea)

[P1-133] 14:00~15:30 Synthesis of Silver Nanowire and Application to Fabrication of Touch Screen

Panel

Min Yeob Lee (Kyungpook Nat'l Univ., Korea), Duck Min Seo, Lee Soon Park (UNIST, Korea), and

Gi Seop Kwak (Kyungpook Nat'l Univ., Korea)

[P1-134] 14:00~15:30 The Reliability Improvement of Drive Characteristic Evaluation for Large Size

Touch Panel

Eun Woo Lee and Yun Su Lee (Kyungpook Nat'l Univ., Korea)

[P1-135] 14:00~15:30 A Capacitive Touch Sensing System Robust to Environmental Noise with a

Third-Order Correlated Double Sampling Method

Junchul Park, Bumsoo Kim, Hyunkyu Ouh, Yoon-Kyung Choi, and Yong-In Park (Samsung

Electronics Co., Ltd., Korea)



Session Title: Poster Session I

Date: August 20, 2015 (Thursday)

Time: 14:00~15:30

[P1-136] 14:00~15:30 Fingerprint Sensor on Display

Jun Young Hwang, Seong Jae Moon, Jin Kuk Kim (Hoseo Univ., Korea), Ho Sik Jeon, Jun Suck Lee

(CrucialTec Co., Ltd., Korea), and Byung Seung Bae (Hoseo Univ., Korea)

[P1-137] 14:00~15:30 Dependence of Sensing Signal on the Resistance of Bus Lines

In Hye Kang, Seung Jae Moon, Jin Kook Kim (Hoseo Univ., Korea), Jun Seok Lee, Ho Sik Jeon (CrucialTec Co., Ltd., Korea), and Byung Seong Bae (Hoseo Univ., Korea)