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Proceedings

PROCEEDINGS

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Development in organic materials for FPDs
Dr. Alasdair Jelfs, Merk (Germany)
- **Wed-KN-02 : OLED**
AMOLED Large Size Technology
Dr. Douglas(Sung Soo) Park, Chi Mei EL Corp. (Korea)
- **Wed-KN-03 : 3D Systems and Applications**
The Latest Trends in 3D Entertainment
Dr. Joshua Greer, REALD (USA)

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Oh-Kyong Kwon, Hai-Jung In (Hanyang Univ., Korea)
- **Tue-S01-02 (Invited)**
Manufacturing Poly-Si Backplanes for Low cost and Large AMOLEDs
Dong-Hoon Shin, S.K. Lee, J.M Lee, K.K. Park, H.J. Kim (Viatron Technologies Corp., Korea), J.W. Hong, K.Y. Lee (Samsung SDI, Korea)
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Corbin Church, G. Reza Chaji, Muahel Tabet, Stefan Alexander, Arokia Nathan (Ignis Inovation Inc, Canada)
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Chun-Fu Wang, Chen-Hsin D. Lien, Jwo-Huei D. Jou (Nat'l Tsing Hua Univ., Taiwan)

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Yewchung Sermon Wu, Chih-Pang Chang (Nat'l Chiao Tung Univ., Taiwan)
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Inkjet-printed silver electrode and organic dielectric layer for all solution-process organic thin-film transistor applications
Yongtaek Hong, Seungjun Chung, Jaewook Jeong (Seoul Nat'l Univ., Korea)
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Performance of Thin Film Transistors Fabricated by Solid Phase Crystallization with Seed Layers of Microcrystalline Silicon
Yi-How Chou, Chuan-Sheng Wei, Guan-Ren Shen, Chang-Yu Huang, Pei-Ming Chen, Jim-Shone Chen (AU Optronics Corpo., Taiwan)
- **Tue-S02-05**
Superlateral growth of a-Ge film by excimer laser annealing
Hsinchi Chen, Wenchang Yeh, Hsiangen Huang, Chihping Hsiao, Jengywan Jeng (Nat'l Taiwan Univ. of Science and Technology, Taiwan)

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- **Tue-S03-01 (Invited)**
Low Power Color Character Displays by CNT-FEDs

Sashiro Uemura, Junko Yotani, Takeshi Nagasako, Hiroyuki Kurachi, Takehiro Nakao, Masaaki Ito, Akira Sakurai, Kouichi Sato (Noritake Co., Ltd, Japan), Kazuhiko Fukuda (Fuji Electric Systems Co., Ltd., Japan), Yahachi Saito (Nagoya Univ., Japan)

- **Tue-S03-02 (Invited)**

- **A Field Emission Lamp based upon CNT with unique fabrication method** (\$

- Kazuhiko Kasano, Masako Harada, Koji Tanoue (Display Tech 21, Corp., Japan)

- **Tue-S03-03**

- **A Novel See-thru Carbon Nanotube Field Emission Indicator** ((

- Yao-Zong Chen, Yu-An Li, Chen-Jing Yu, Shih-Chien Hsiao, Frank Yang, Kai-Shiuan Chen, David Yeh, Chun-Yen Hsiao, Chih-Che Kuo, Jin-Shou Fang (TECO Nanotech Co., Ltd., Taiwan)

- **Tue-S03-04**

- **High Voltage Full-Bridge Inverter for Driving Tubular Carbon Nanotube Field Emission Lamp** ((*

- Chang-Hua Lin, Ming-Hsuan Hung (Tatung Univ., Taiwan), Cheng-Chen Yang (Chunghwa Picture Tubes Ltd. , Taiwan), Tzung-Han Yan, Jian-Min Jeng (Tatung Company, Taiwan)

Session04 | 3D Systems and Applications (1) 3D Content and Application

- **Tue-S04-02 (Invited)**

- **Image-based Modeling** () \$

- Long Quan (The Hong Kong Polytechnic Univ., Hong Kong)

- **Tue-S04-03 (Invited)**

- **Adding the Third Dimension to a CG Animation Pipeline** () %

- Jiann-Rong (Chris) Wu, Shuen-Huei Guan, Hao-Ming Chen (Digimax Inc., Taiwan)

- **Tue-S04-04**

- **Stereoscopic Conversion of Monoscopic Video using Edge Direction Histogram obtained from Segmented Image** () (

- Jeehong Kim, Ji-Sang Yoo (Kwangwoon Univ., South Korea)

- **Tue-S04-05**

- **Massive Multithreading Stereo Image-based Rendering** () ,

- Kai-Che Liu, Wei-Hao Huang, Wei-Jia Huang (ITRI, Taiwan)

- **Tue-S04-06**

- **Novel Multi-View Generation Algorithm Based on Two-Layered Depth Image for 3DTV** (** &

- Chia-Ming Cheng, Shu-Jyuan Lin, Shang-Hong Lai (Nat'l Tsing Hua Univ., Taiwan)

- Kuen Lee (ITRI, Taiwan)

Session05 | OLED (2) OLED Processing and Manufacturing

- **Tue-S05-01 (Invited)**

- **Solution Processing for OLED Manufacturing Success** (**)

- Marie O'regan (DuPont Displays, Ireland)

- **Tue-S05-02 (Invited)**

- **Sub Atomic Layer Deposition technology for mass production of AMOLED** (** +

- Byung-Il Lee (TERA Semicon Corp., Korea)

- **Tue-S05-03 (Invited)**

- **Advanced Process Technology for OLED Manufacturing** (** + %

- Tukaram K. Hatwar, Takashi Anjiki (Kodak Japan Company, Japan), Michael Long (Eastman Kodak Company, USA)

- **Tue-S05-04**

- **Solution-Processible Trifluoromethyl-Iridium-Complex for High-Efficiency Green Phosphorescent Device** (** +)

- Jwo-Huei Jou, Mao-Feng Hsu, Wei-Ben Wang, Yu-Chiao Chung, Shih-Ming Shen, Cheng-Chung Chen, Chi-Ping Liu, Chun-Jan Wang, Ming-Hsuan Wu, Sun-Zen Chen (Nat'l Tsing Hua Univ., Taiwan), Chin-Ti Chen (Academia Sinica, Taiwan)

- **Tue-S05-05**

- **Solution-Processable Single-Layered White Organic Light-Emitting Devices Using Cationic Transition Metal Complexes** (** +,

- Hai-Ching Su (Nat'l Chiao Tung Univ., Taiwan), Chih-Che Liu, Chung-Chih Wu, Hsiao-Fan Chen, Fu-Chuan Fang, Ken-Tsung Wong, Yi-Hung Liu, Shie-Ming Peng (Nat'l Taiwan Univ., Taiwan)

Session06 | Active Matrix Devices (5) Novel Devices, Sensor, Displays

- **Tue-S06-01 (Invited)**

- **Sensor Applications of Thin-Film Devices - Photosensor, Magnetic Sensor, Temperature Sensor and Chemical Sensor** (- **, &

- Mutsumi Kimura, Takehiro Shima, Takeshi Ogura, Yuta Miura, Hayami Hashimoto, Masaaki Hirako, Toshifumi Yamaoka, Satoshi Tani, Yohei Yamaguchi, Koushi Setsu, Yoshiki Imuro, Kosuke Bundo (Ryukoku Univ., Japan), Tomohisa Hachida, Yoshitaka Nishizaki, Takehiko Yamashita, Yuki Sagawa (Nara Institute of Science and Technology, Japan), Tokihiro Yoshikawa, Tomohiro Tadokoro (NEC SCHOTT Components Corp., Japan)

- **Tue-S06-02 (Invited)**

- **Large-size TFT-LCD With Embedded Photo Sensors in Pixels and The Applications** (**, *

- Jian-Shen Yu, Min-Feng Chiang, Hsueh-Ying Huang, Chung-Hung Yang, Yung-Tse Cheng, Yu-Min Hsu, Jun-Wei Yang, Ming-Shen Lai (AU Optronics Corp., Taiwan)

- **Tue-S06-03 (Invited)**

- **Flexible Active Matrix Displays** (** - \$

- Ted Hong Shinn (Prime View International Co., LTD, Taiwan)

- **Tue-S06-04**

- **Complementary Circuits of Ambipolar Organic/Oxide Thin-Film Transistors for AMFPD**

Applications - &

Yi-Hsing Chu, Gao-Ming Wu, Wei-Kuan Yu, Fang Chung Chen, Han-Ping D. Shieh (Nat'l Chiao Tung Univ., Taiwan)

- **Tue-S06-05**

- **The impact of layout design on device performance in Hydrogenated Amorphous Silicon TFTs - ***

Chao-Chien Chiu, Chuan-Sheng Wei, Ching-Chieh Shih, Jim-Shone Chen, Wei-Ming Huang (AU Optronics Corp., Taiwan)

Session07 | Emissive & Other Display (2) Portable Device

- **Tue-S07-02**

- **2D and Projection Hybrid Switchable Mobile Display - %\$**

Yu-Cheng Lai, Yu-Cheng Chang, Yi-Pai Huang, Han-Ping D. Shieh (Nat'l Chiao Tung Univ., Taiwan), Hsin-Hsuan Huang, Cheng-Huan Chen (Nat'l Tsing Hua Univ., Taiwan), Chih-Wen Chen (AU Optronics Corp., Taiwan)

- **Tue-S07-03**

- **The Development of Single layer Multi-color Electrowetting Display - %\$(**

Shu-Wei Kuo, W. Y. Cheng, K. L. Lo, D. W. Lee, H. H. Lee, K. T. Chen, Y. H. Tsai, Y. C. Chen, S. Y. Fuh, C. Y. Wang, P. J. Su, W. W. Chiu, K. C. Lee, J. W. Shiu, Y. C. Liao (ITRI, Taiwan)

- **Tue-S07-04**

- **Influence of Response Time by Fluoropolymer Side Wall Height of Electrowetting Light Valve - %\$+**

Jhuang-Yu Cyue, In-Cha Hsieh, Ying-Chang Li, Jiao-Long Cheng (Nat'l Chung Hsing Univ., Taiwan)

- **Tue-S07-05**

- **Reflective Electronic Paper Display by Particle Polarization with Tunable Stability - %%%**

Shih-Chiang Chen, Cheng-Pu Chiu, Ching-Hsiang Hsu, Shih-Kang Fan (Nat'l Chiao Tung Univ., Taiwan)

Session08 | 3D Systems and Applications (2) 3D Capturing, Coding and Transmission

- **Tue-S08-01 (Invited)**

- **Three-dimensional Video Capturing for Realistic Broadcasting Services - %%)**

Yo-Sung Ho, Eun-Kyung Lee (GIST, Korea)

- **Tue-S08-02 (Invited)**

- **Compression of 3D Video: Various Approaches to Compress Time Varying Meshes - %%-**

Kiyoharu Aizawa (Tokyo Univ., Japan)

- **Tue-S08-03**

- **Temporal Consistency Enhancement of Background for Depth Estimation - %&**

Sang-Beom Lee, Cheon Lee, Yo-Sung Ho (Gwangju Institute of Science and Technology (GIST), Korea)

- **Tue-S08-04**

- **Depth-Aware Achromatic Image/Video Enhancement - %&***

Chung-Te Li, Chao-Chung Cheng, Yi-Min Tsai, Liang-Gee Chen (Nat'l Taiwan Univ., Taiwan)

- **Tue-S08-05**

- **Using Model-based Hand Tracking for an Interactive Game - % %**

Jun-Mein Wu, Wen-Show Luo, Chia-Chen Chen, Shih-Pin Chao, Hsien-Chang Lin (ITRI, Taiwan), Cheng-Yuan Tang (Huafan Univ., Taiwan)

Session09 | OLED (3) OLED Materials and Devices (I)

- **Wed-S09-01 (Invited)**

- **White Phosphorescent OLEDs: Maximizing the power efficacy lifetime product - % ***

Raymond C. Kwong, Brian W. D'Andrade, James Esler, Chun Lin, Vadim Adamovich, Sean Xia, Michael S. Weaver, Julie J. Brown (Universal Display Corp., USA)

- **Wed-S09-02 (Invited)**

- **Electroactive polymers and molecular glasses for optoelectronic applications - % -**

Juozas Vidas Grazulevicius (Kaunas Univ. of Technology, Lithuania)

- **Wed-S09-03 (Invited)**

- **Synthesis and Characterization of Efficient Cyclometalated Pt Complexes for Full-color Displays - %(%**

Jian Li (Arizona State Univ., USA)

- **Wed-S09-04**

- **Improving the Performance of Blue PHOLEDs Using Composite Emitter - %(&**

Meng-Ting Lee, Jin-Sheng Lin, Miao-Tsai Chu, Mei-Rung Tseng (ITRI, Taiwan)

- **Wed-S09-05**

- **Bipolar Conductive Vinyl Copolymers for Homojunction and Heterojunction OLED Applications - %()**

Louis M Leung, Yik-Chung Law, Michael Y. Wong, T-H Lee, K.M. Lai, Lok-Yee Tang (Hong Kong Baptist Univ., Hong Kong)

Session10 | Active Matrix Devices (2) AM Displays for Low Power Applications

- **Wed-S10-01 (Invited)**

- **Display Power Reduction Technology - %(-**

(Kuang-Lang) Wolf Chen (CPT, Taiwan)

- **Wed-S10-02 (Invited)**

- **Utilizing TFT-LCD infrastructure to manufacture low power, high speed MEMS displays - %)\$**

Richard S Payne (Pixtronix, USA)

- **Wed-S10-03 (Invited)**
LCD new future through BLU technology
C.H. (Jerry) Yao (Chi Mei Optoelectronics Corp., Taiwan)
- **Wed-S10-04**
Adaptive Backlight in Field Sequential Color Displays for Optimizing Color Breakup Suppression
Shih-Hsun Chien, Chun-Ho Chen, Fang-Cheng Lin, Yi-Pai Huang, Han-Ping D. Shieh (Nat'l Chiao Tung Univ., Taiwan), Shian-Jun Chiou, Wen-Chih Tai (Chuanghwa Picture Tubes, Ltd., Taiwan)
- **Wed-S10-05**
A Field Sequential Color 15.4-in. TN-TFT Notebook
Shian-Jun Chiou, Ying-Hui Chen, Yuan-Hsin Tsou, Wen-Chih Tai, Chia-Lin Liu, Chi-Neng Mo (Chunghwa Picture Tubes, Ltd., Taiwan)

Session11 | 3D Systems and Applications (3) 3D Display and System

- **Wed-S11-01 (Invited)**
Dive Into the Game with GeForce 3D Vision
Jeffrey Yen (NVIDIA, USA)
- **Wed-S11-02 (Invited)**
Making of Virtual Human body -Virtual Human body as communication interface
Etsuo Genda (Kyushu Univ., Japan)
- **Wed-S11-03 (Invited)**
True 3D Volumetric Displays with Focus Cues
Brian Thomas Schowenger (Univ. Of Washington, USA)
- **Wed-S11-04**
The Simulation of the EWP Optical Scanning Film for Time-sequential Multi-view Autostereoscopic Display System
Wei-Liang Hsu, Chao-Hsu Tsai, Hsiu-Hsiang Chen, Chia-Tai Chen, Chung-Han Wu (ITRI, Taiwan)
- **Wed-S11-05**
Characterization of autostereoscopic 3D displays using Fourier optics instrument &
Pierre Boher, Thierry Leroux, Thibault Bignon, Veronique Collomb-Patton, David Glinel (ELDIM, France)

Session12 | OLED (4) OLED Materials and Devices (II)

- **Wed-S12-01 (Invited)**
OLED-Innovations for Active Matrix Displays – the PIN-Structure
Gerd Günthers (Novaled, Germany)
- **Wed-S12-02 (Invited)**
White Tandem Architectures for Large-Area AMOLED TV Displays
Tukaram K. Hatwar (Eastman Kodak Company, USA)
- **Wed-S12-03 (Invited)**
RGB and White OLEDs with High Performance
Kazuki Nishimura, Masahiro Kawamura, Yukitoshi Jinde, Toshihiro Iwakuma, Masakazu Funahashi, Hitoshi Kuma, Kenichi Fukuoka, Chishio Hosokawa (Idemitsu Kosan Co., Ltd., Japan)
- **Wed-S12-04**
Organic tandem device integrated with electroluminescence and photovoltaic properties
Chih-Chien Lee, Jia-Chin Huang, Chih-Han Wang (Nat'l Taiwan Univ. of Science and Technology, Taiwan), Shun-Wei Liu (Academia Sinica / Nat'l Taiwan Univ., Taiwan), Chi-Feng Lin (Nat'l Taiwan Univ., Taiwan), Chin-Ti Chen (Academia Sinica, Taiwan)

Session13 | LCD (5) Electronic Materials and Their Designs for Display Applications

- **Wed-S13-01 (Invited)**
Integration of Capacitive Touch Panel
Chia-Yen Li, Chen-Chu Sung, Fu-Tien Ku (Dano Tech., Taiwan)
- **Wed-S13-02 (Invited)**
David King (Litemax Inc., Taiwan)
- **Wed-S13-03 (Invited)**
UV Resistant LED Packaging Materials
Shu-Chen Huang (MCL/ITRI, Taiwan)
- **Wed-S13-04**
Improving Liquid Crystal Displays against High-Voltage Electrostatic Discharge by Doping Nano-Scaled Tin-Doped Indium Oxide Particles
Bau-Jy Liang, Wun-Yi Shie, Don-Gey Liu, Sy-Ruen Huang (Feng Chia Univ., Taiwan)
- **Wed-S13-05**
Modeling Voltage Holding Ratio of a Liquid-Crystal Cell with a Parallel Resistor/Capacitor Circuit
Yu-Ting Lin, Yu-Jiun Lin, Wei Lee (Chung Yuan Christian Univ., Taiwan)

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Human Factors of Autostereoscopic Displays and Their Standardization
Hiroyasu Ujike (AIST, Japan), Shin-ichi Uehara (NEC LCD Techs., Japan), Akimasa Yuuki (Mitsubishi Elec., Japan), Goro Hamagishi (Seiko Epson, Japan), Kazuki Taira (Toshiba, Japan), Takafumi Koike (Hitachi, Japan), Kuniaki Izumi (3D Consortium, Japan), Yuzo Hisatake (Toshiba Matsushita Display Tech., Japan), Yoshihiko

Nakano (Japan Ergonomics Society, Japan)

- **Wed-S14-02 (Invited)**
Influence of Optical Characteristics on Monocular/Binocular Viewing in Autostereoscopic Displays
Kazuki Taira (Toshiba, Japan), T. Koike (Hitachi, Japan), S. Uehara (NEC LCD Techs., Japan), K. Izumi (3D Consortium, Japan), H. Ujike (AIST, Japan), Y. Hisatake (Toshiba Matsushita Disp. Tech., Japan)
- **Wed-S14-03 (Invited)**
Camera Calibration for Measurements of Autostereoscopic Display
Takafumi Koike (Hitachi, Japan), Kazuki Taira (Toshiba, Japan), Akimasa Yuuki (Mitsubishi Elec., Japan), Goro Hamagishi (Seiko Epson, Japan), Shin-ichi Uehara (NEC LCD Techs., Japan), Kuniaki Izumi (3D Consortium, Japan), Yuzo Hisatake (Toshiba Matsushita Disp. Tech., Japan), Hiroyasu Ujike (AIST, Japan)
- **Wed-S14-04 (Invited)**
Measurement methods of QSVS based on interocular crosstalk
Takafumi Koike (Hitachi, Japan), Kazuki Taira (Toshiba, Japan), Akimasa Yuuki (Mitsubishi Elec., Japan), Goro Hamagishi (Seiko Epson, Japan), Shin-ichi Uehara (NEC LCD Techs., Japan), Kuniaki Izumi (3D Consortium, Japan), Yuzo Hisatake (Toshiba Matsushita Disp. Tech., Japan), Hiroyasu Ujike (AIST, Japan)
- **Wed-S14-05 (Invited)**
Study of optimal and allowable limits for 3D crosstalk in Autostereoscopic displays
Akimasa Yuuki (Mitsubishi Elec., Japan), S. Uehara (NEC LCD Techs., Japan), K. Taira (Toshiba, Japan), G. Hamagishi (Seiko Epson, Japan), K. Izumi (3D Consortium, Japan), T. Nomura (Sharp, Japan), K. Mashitani (Sanyo Elec., Japan), A. Miyazawa (NAMCO BANDAI Games, Japan), T. Koike (Hitachi, Japan), T. Horikoshi (NTT DoCoMo, Japan), S. Miyazaki (SONY, Japan), H. Ujike (AIST, Japan), Y. Hisatake (Toshiba Matsushita Display Tech., Japan)

Session15 | Manufacturing (1) Manufacturing Technologies and Equipment

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Challenges and innovative solution of PECVD for large size TFT-LCD manufacturing
Tak Tanaka (AKT.Inc., Japan)
- **Thu-S15-02 (Invited)**
Inkjet technology for "Color filter" manufacturing
Shigeru Tohno (Toray Engineering Co.,Ltd, Japan)
- **Thu-S15-03**
An Accurate Thermal Stress Estimation by Using Block Adaptation
Ming-Lang Tai, Wei-Jen Chen, Pai-Chun Chien, Yu-Sheng Chen (Chunghwa Picture Tubes, Ltd., Taiwan)
- **Thu-S15-04**
Organic deposition methods for half 4th generation AM-OLED by using the Circular Nozzle Source
Sungmoon Kim, Kwangho Jeong, Sujeong Moon (R&D center of YAS co., Ltd, Korea)
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Amorphous Indium Gallium Zinc Oxide Thin Film Transistors with Different Source/Drain Electrodes
Gao-Ming Wu, Yi-Shin Chu, Yi-Teh Chou, Han-Ping D. Shieh, Li-Feng Teng, Po-Tsun Liu (Nat'l Chiao Tung Univ., Taiwan), Chi-Neng Mo, Mei-Tsao Chiang, Huai-An Li (Chunghwa Picture Tubes, Ltd., Taiwan)

Session16 | Active Matrix Devices (3) Integrated Circuits and Embedded Devices

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Yoshiharu Nakajima (Sony Corp., Japan)
- **Thu-S16-02 (Invited)**
Advances in thin film transistor pixel amplifier technology for emerging large area imaging and display applications
Karim S Karim (Univ. of Waterloo, Canada)
- **Thu-S16-03 (Invited)**
High-Resolution Top Emission AMOLED technology for small- and medium-sized displays
Du-Zen Peng, Chang-Ho Tseng, Hsiang-Lun Hsu, Shou-Cheng Wang and Ryuji Nishikawa (TPO Displays Corp., Taiwan)
- **Thu-S16-04**
Improvement of Luminance Degradation via the Top Emission Structure for AMOLED Displays
Chih-Lung Lin, Yu-Zhan Tsai, Kuan-Wen Chou, Chun-Da Tu (Nat'l Cheng Kung Univ., Taiwan)
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Twin Poly-Si Thin Film Transistors EEPROM with Nitride Trapping Layer
Ji-Hong Chiang, Yung-Chun Wu, Lun-Jyun Chen (Nat'l Tsing Hua Univ., Taiwan), Hung-Bin Chen, Po-Wen Su, Chin-Wei Chang (Nat'l Chiao Tung Univ., Taiwan)

Session17 | LCD Components and Materials (1) Novel LC Materials and Devices

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Liquid Crystal Materials - Latest Developments and Key trends
Mark Verrall, Jack Hsu (Merck Display Technologies Ltd., Taiwan), Georg Bernatz (Merck KGaA, Germany)
- **Thu-S17-02 (Invited)**
Liquid Crystal Display Modes with Three-Electrode Structure
Tae-Hoon Yoon, Jong-In Baek, Jae Chang Kim (Pusan Nat'l Univ., Korea)
- **Thu-S17-03**
Plasma Alignment Technology For Liquid Crystal Devices

Chi-Wen Lin, Chin-Yi Hsu, Huang-Ming Philip Chen, Chin-Yang Lee (Nat'l Chiao Tung Univ., Taiwan), Yin-Chang Lin, Yao-Jane Hsu (Nat'l Synchrotron Radiation Research Center, Taiwan)

- **Thu-S17-04**
MIPI® (Mobile Industry Processor Interface) Display Bridge Controller for Existing Processors without MIPI® Capability & (Allen Tung, Miles Simpson (California Micro Devices, USA)
- **Thu-S17-05**
The influence of the temperature on the motion blur of the LCDs & ++ Ji-Young Ahn, Jae-Kyung Yoon, Moojong Lim, (LG Display, Korea)

Session18 | Manufacturing (2) Environmental Protection, Safety & Hygiene Management, and Loss Prevention

- **Thu-S18-01 (Invited)**
Energy Saving and Carbon Risk Reduction Assessment on Energy Intensive Industries in Taiwan &, \$ Chien-Ming Lee (Nat'l Taipei Univ., Taiwan)
- **Thu-S18-02 (Invited)**
The Energy Performance Rating Method for Fab Energy Efficient Design &, ' Kuei-Peng Lee, Te-Ang Cheng, Hsiang-Lun Chen (Nat'l Taipei Univ. of Technology, Taiwan)
- **Thu-S18-03 (Invited)**
Wastewater Treatment for Ammonium Nitrogen and Phosphorus Removal in TFT-LCD Industry &, + En-Tian Lin (TOPCO Scientific Co., LTD., Taiwan)
- **Thu-S18-04 (Invited)**
Acute and Chronic Toxic Responses of Aquatic Organisms on Ambient Effluents Exposure &- % Su Mei Wu (Chiayi Univ., Taiwan)
- **Thu-S18-05 (Invited)**
The Discussion on Recent Fire Safety Issues for High-Tech Facilities &- * Chiun-Hsun Chen (Nat'l Chiao Tung Univ., Taiwan)
- **Thu-S18-06 (Invited)**
Buckling Restrained Brace Frame System for Seismic Resistant Buildings & \$\$ Keh-Chyuan Tsai, Chih-Yu Wei (Nat'l Center for Research on Earthquake Engineering, Taiwan)

Session19 | Active Matrix Devices (4) Flexible Active-Matrix Displays

- **Thu-S19-01 (Invited)**
Flexible OLEDs: Challenges, Opportunities, and Current Status & \$) Michael Hack, Rui-Qing Ma, Julie J. Brown (Universal Display Corp., USA)
- **Thu-S19-03 (Invited)**
OTFT-driven Flexible AMOLED Display & \$- Kazumasa Nomoto (Sony Corp., Japan)
- **Thu-S19-04**
Self Heating Effect on Reliability for Low-Temperature a-Si:H TFTs on Flexible Substrate & % Hsiao Wen Zan, Shih-Chin Kao (Nat'l Chiao Tung Univ., Taiwan), Jung-Jie Huang, Bo-Cheng Kung (DTC/ITRI, Taiwan)
- **Thu-S19-05**
High Flexibility of AMOLED Displays on Colorless PI Substrate & % Yen Shih Huang, Hua Chi Cheng, Chan-Jui Liu, Chen-Wei Lin, King-Yuan Ho, Po-Feng Lee, Chih-Hung Cheng, Heng-Lin Pan, Jing-Yi Yan, Shu-Tang Yeh, Chao-Chiun Liang, Cheng-Chung Lee (DTC/ITRI, Taiwan)

Session20 | LCD Components and Materials (2) Novel LC Devices

- **Thu-S20-01 (Invited)**
Glassy-Cholesteric Films as Robust Organic Solid-State Lasers & % Shaw H. Chen, Simon K. H. Wei, Ksenia Dolgaleva, Svetlana G. Lukishova, Robert W. Boyd (Univ. of Rochester, USA)
- **Thu-S20-02 (Invited)**
An improved method of obtaining dielectric and elastic LC properties by fitting Theoretical Capacitance-Voltage curve with its Experimental Counterpart using the LCAS-3 &) Michael Wand (LC Vision Inc., USA)
- **Thu-S20-03 (Invited)**
Nanostructured alignment layers and their applications & B# Hoi-Sing Kwok, C. Y. Li, Y. W. Li (Hong Kong Univ. of Science and Technology, Hong Kong)
- **Thu-S20-04**
Light Valve Based on Photonic-Crystal/Liquid-Crystal Cell between Crossed Polarizers & ' & Victor Zyryanov, V.A. Gulyakov, S.A. Myslivets, V.G. Arkhipkin (L.V. Kirensky Institute of Physics SB RAS, Russia), Wei Lee (Chung Yuan Christian University, Taiwan)
- **Thu-S20-05**
Two-color-field Driving Scheme for Color Filterless LCD-TV & ' ' % Yi-Ru Cheng, Yi-Pai Huang, Han-Ping D.Shieh, Yu-Kuo Cheng (Nat'l Chiao Tung Univ., Taiwan), Shian-Jun Chiou, Wen-Chih Tai (Chuanghai Picture Tubes,Ltd., Taiwan)

Session21 | Flexible Display (1) Flexible Display

- **Thu-S21-01(Invited)**
Systems-level understanding of the fabrication of active matrix flexible displays on plastic

with a temporary bonding approach

Gregory B. Raupp (Arizona State Univ., USA)

• **Thu-S21-02 (Invited)**

Enabling Printed Electronics through Materials Design

Beng Ong (Nanyang Univ., Singapore)

• **Thu-S21-03 (Invited)**

Recent Advances in Flexible Reflex? Based Cholesteric Displays

Asad Khan (Kent Displays Incorporated, USA)

• **Thu-S21-04**

Fracture Analysis of Conductive Thin Films on Flexible Substrates

Rwei-Ching Chang, Chin-Hsiang Tu, Yan-Ciou Li, (St. John's Univ., Taiwan), Chin-I Chiang, Chien-Lung Tsou, Chi-Neng Mo (Chunghwa Picture Tubes, Ltd., Taiwan)

• **Thu-S21-05**

Effects of mechanical strain on electrical properties and stability of $\mu\text{-Si}$ thin film transistors on Polyimide

I-Chung Chiu, I-Chun Cheng, Jian-Zhang Chen (Nat'l Taiwan Univ., Taiwan), Jung-Jie Huang, Yung-Pei Chen (ITRI, Taiwan)

Session22 | Active Matrix Devices (6) Organic/Oxide TFT Devices and Displays

• **Thu-S22-01 (Invited)**

Printed OTFT for stable organic electronics

Jin Jang, Seung Hoon Han, Sun Hee Lee, Min Hee Choi (Kyung Hee Univ., Korea)

• **Thu-S22-02 (Invited)**

Stretchable, large-area electronics using printed organic transistors

Takao Someya, Tsuyoshi Sekitani (Tokyo Univ., Japan)

• **Thu-S22-03 (Invited)**

What have been clarified for amorphous oxide semiconductors?

Toshio Kamiya, Hideo Hosono (Tokyo Institute of Technology Materials and Structures Laboratory, Japan), Kenji Nomura (ERATO-SORST, Japan)

• **Thu-S22-04**

Self-aligned Top-gate Coplanar In-Ga-Zn-O Thin Film Transistors

Cheng-Han Wu, Hsing-Hung Hsieh, Chih-Wei Chien, Chung-Chih Wu (Nat'l Taiwan Univ., Taiwan)

• **Thu-S22-05**

Hysteresis-free Photopatternable Dielectrics for Flexible Organic Thin-Film Transistors

Bing-Ruei Zeng, Fang-Chung Chen, Shang-Chieh Chien (Nat'l Chiao Tung Univ., Taiwan), Chi-Neng Mo, Huai-An Li, Shou-Cheng Weng (Chunghwa Picture Tubes, Ltd., Taiwan)

Session23 | LCD Components and Materials (3) LC Devices and High Dynamic Driving Algorithm

• **Thu-S23-01**

Solvent and Thermal Processing of Thermotropic Nematic Oligo(flourene-co-bithiophene) into Oriented Films

Shaw H. Chen, Lichang Zeng, Feng Yan, Simon K. -H. Wei, Sean W. Culligan (Univ. of Rochester, USA)

• **Thu-S23-02**

Motion Blur Suppression by 120Hz Local Blinking High Dynamic Range LCD Systems

Lin-Yao Liao, Chih-Wei Chen, Yi-Pai Huang (Nat'l Chiao Tung Univ., Taiwan), Szu-Che Yeh (AU Optronics Corp., Taiwan)

• **Thu-S23-03**

Multi-Electrically Driven Cylindrical Liquid Crystal Lens

Chun-Hsien Lee, To-Chiang Shen, Lin-Yao Liao, Chih-Wei Chen, Yi-Pai Huang, Han-Ping David Shieh (Nat'l Chiao Tung Univ., Taiwan)

• **Thu-S23-04**

Segment Color Control (SCC) Algorithm for High Dynamic Range LCD-TVs

Guo-Zhen Wang, Yi-Pai Huang, Han-Ping D. Shieh (Nat'l Chiao Tung Univ., Taiwan), Szu-Che Yeh (AU Optronics Corp., Taiwan)

• **Thu-S23-05**

Color Optimization Model for Color-Controlled Backlight System in High Dynamic Range LCD-TVs

Yi-Ling Chen, Yu-Kuo Cheng, Yi-Pai Huang, Han-Ping D. Shieh (Nat'l Chiao Tung Univ., Taiwan), Szu-Che Yeh (AU Optronics Corp., Taiwan)

Session24 | Flexible Display (2) Flexible Display Medium

• **Thu-S24-01 (Invited)**

Recent Developments in Electrowetting Displays and Research of a New and Improved 'Electrofluidic' Display Platform

Jason Heikenfeld, Eric Kreit, Kaichang Zhou, Shu Yang (Univ. of Cincinnati, USA), Ken Dean, Emmett Howard, Michael Johnson (Motorola Incorporated, USA), Wei Yuan Cheng, Kuo Lung Lo (ITRI, Taiwan)

• **Thu-S24-02 (Invited)**

Optical Performance of In-Plane Electrophoretic Color e-Paper

Alwin R.M. Verschuere, Leon W.G. Stofmeel, Patrick J. Baesjou, Marc H.W.M. van Delden, Kars-Michiel H. Lenssen, Manfred Mueller, Gerrit Oversluizen (Philips Research, Netherlands), Jack J. van Glabbeek, Johan T.M. Osenga, Roland M. Schuurbijs (Philips Research MiPlaza, Netherland)

• **Thu-S24-03**

Large Area Bistable Cholesteric Liquid Crystal Display and the driving system

Kuo Chang Lee, C. C. Tsai, J.W. Shiu, C. C. Lee, Y. Y. Chang, James Liang, C. Y. Huang, W. H. Huang, C. H.

Hsieh (ITRI, Taiwan)

- **Thu-S24-04**
Roll-to-Roll Laser-addressing e-Papers (\$\$
Chao-Chiun Liang, Shang-Chia Chen, Chung-Shu Chang, Heng-Yin Chen, Hsuan-Kai Lin (ITRI, Taiwan)
- **Thu-S24-05**
Brightness Enhancement of Cholesteric LCD by Prism Array with Additional Light Source (\$(\$
Ching-Yao Huang, Chien-Hsiang Hung, Yi-Pai Huang, Chung-Hao Tien (Nat'l Chiao Tung Univ., Taiwan)

Session25 | Active Matrix Devices (7) Transparent Oxide TFT

- **Thu-S25-01 (Invited)**
Synthesis of ZnO thin films and its applications to sophisticated TFT devices (\$,
Takashi Hirao (Kochi Univ., Japan)
- **Thu-S25-02 (Invited)**
a-IGZO TFTs for Flat Panel Displays \$B#
Jerzy Kanicki (Univ. of Michigan, USA)
- **Thu-S25-03 (Invited)**
Develop Low Temperature Solution-based Process for Oxide-based TFTs (\$-\$
Chih-Hung Chang, Seung-Yeol Han, Yu-Jen Chang, Doo-Hyoung Lee (Oregon State Univ., USA), Si-Ok Ryu (Yeungnam Univ., Korea), Gregory S. Herman (Sharp Laboratories of America, USA)
- **Thu-S25-05**
High Operating Current ZnO Based Thin Film Transistors by Inserting a Thin Ga-doped ZnO Layer (%
Kuang Chung Liu, Hung Li Chiang, Shih Hua Hsiao, Liang Yu Su, Lung Han Peng, Jian Jang Huang (Nat'l Taiwan Univ., Taiwan), Yung-Hui Yeh, Chun-Cheng Cheng (ITRI, Taiwan)

Session26 | LCD Components and Materials (4) Electronic Printing Materials and Lighting effects on Display

- **Thu-S26-01 (Invited)**
Materials for Printed Electronics (%
Emily Chou (Evonik Degussa, Taiwan)
- **Thu-S26-02 (Invited)**
Processing Chemical Study for FPD Application (%
Der-Gun Chou, Yen-Cheng Li (ECIC, Taiwan)
- **Thu-S26-03 (Invited)**
New Transparent PI-silica Hybrid Substrate for Flexible Display and Electronic (%
Chya Ming Leu, Tzong Ming Lee (ITRI, Taiwan)
- **Thu-S26-04**
Study of Ambient Light effect to a Color Sequential Display with color sensor (&\$
Kai-Ting Hu, Chi-Chung Tsai, Huang-Min Chen, Shian-Jun Chiou, Wen-Chih Tai, Chia-Lin Liu, Chi-Neng Mo (Chunghwa Picture Tubes, Ltd., Taiwan)
- **Thu-S26-05**
Front Lighting Design for Reflective Display: Free-form Surface Reflector for Uniform Illumination (&(
Hao-Wen Chuang, Chien-Hsiang Hung, Chung-Hao Tien, Yi-Pai Huang (Nat'l Chiao Tung Univ., Taiwan)

Poster Session | Active Matrix Devices

- **Wed-P1-01**
A resistive multi-touch screen integrated into LCD (&,
Chun-Wei Wu, Long-Cai Jhuo, Cheng-Chun Hu (Chunghwa Picture Tubes, Ltd., Taiwan)
- **Wed-P1-02**
Amorphous Indium Gallium Zinc Oxide Thin Film Transistors with Interface Modification Layer (' \$
Gao-Ming Wu, Yi-Shin Chu, Yi-Teh Chou, Han-Ping D. Shieh, Li-Feng Teng, Po-Tsun Liu (Nat'l Chiao Tung Univ., Taiwan), Chi-Neng Mo, Mei-Tsao Chiang, Huai-An Li (Chunghwa Picture Tubes, Ltd., Taiwan)
- **Wed-P1-03**
Characteristics and Stability of Indium-Gallium-Zinc Oxide Thin Film Transistor Devices (' ' '
Ya-Hui Yang, Sidney S. Yang, Chen-Yu Kao, Kan-Sen Chou (Nat'l Tsing Hua Univ., Taiwan)
- **Wed-P1-04**
The Electrical Behavior of the GZO Delta-doped ZnO TFTs using Nanocrystalline Model (' *
Shih Hua Hsiao, Kuang Chung Liu, Liang Yu Su, Lung-Han Peng, Jian Jang Huang (Nat'l Taiwan Univ., Taiwan), Y. H. Yeh, C.C.Cheng (ITRI, Taiwan)
- **Wed-P1-05**
Room Temperature Fabrication of Enhancement/Depletion Mode Thin Film Transistors Based on Amorphous Indium Oxide Channel (' -
Sung-Li Wang, Hung-Wei Kuo, Lung-Han Peng (Nat'l Taiwan Univ., Taiwan)
- **Wed-P1-06**
Research of light sensor for SiO₂ Nanoparticles on n-ZnO/p-Si Heterojunction photodetector (&(
Chun-Wei Wu, Long-Cai Jhuo, Cheng-Chun Hu (Chunghwa Picture Tubes, Ltd., Taiwan)
- **Wed-P1-07**
Extended lifetime of pentacene thin-film transistor with modified polyvinyl alcohol (PVA) passivation layer (' ()
Taek Ahn, Hye Jung Suk, Mi Hye Yi (Korea Research Institute of Chemical Technology (KRICT), South Korea)
- **Wed-P1-08**
Low-temperature processable and surface energy controlled polyimide gate insulators for

flexible organic thin film transistor (,

Taek Ahn, Yoojeong Choi, Ji Young Kim, Mi Hye Yi (Korea Research Institute of Chemical Technology (KRICT), South Korea)

• **Wed-P1-09**

The Fabrication of Thin-Film Transistors by Using Room Temperature Sputtering Deposited Aluminum-doped Zinc Oxide Film () %

Chiung Wei Lin, Yi-Liang Chen, Shu-Jheng Lin (Tatung Univ., Taiwan), Chi-Neng Mo (Chunghwa Picture Tube, Ltd., Taiwan)

• **Wed-P1-10**

Active-Layer Thickness Effects on the On-state Current and Threshold Voltage of ZnO TFT () (

Chengyuan Dong, Yikai Su (Shanghai Jiao Tong Univ., China), Junfeng Li, Bo Jin (SVA (GROUP) CO., LTD., China)

• **Wed-P1-11**

Channel Etch Dependence on Device performance Of On/Off state Current () ,

Chuan-Sheng Wei, Wan-Yu Lo, Pei Ming Chen, Yeong-Shyang Lee, Jim-Shone Chen, Wei-Ming Huang (AU Optronics Corp., Taiwan)

• **Wed-P1-12**

Photo Leakage Current Reduction with Various Channel Etch Type and Plasma Influence on Back-Surface Transfer Characteristics (* &

Chuan-Sheng Wei, Guang-Ren Shen, Pei Ming Chen, Chao-Chien Chiu, Yeong-Shyang Lee, Jim-Shone Chen, Wei-Ming Huang (AU Optronics Corp., Taiwan)

• **Wed-P1-14**

Trap state related the back-interface reliability with various Plasma treatment influence (*)

Chuan-Sheng Wei, Chao-Chien Chiu, Jungyen Huang, Chih-Huang Shih, Guang-Ren Shen, Pei Ming Chen, Jim-Shone Chen, Wei-Ming Huang (AU Optronics Corp., Taiwan)

• **Wed-P1-15**

A Novel LTPS-TFT Pixel Circuit Design for AMOLED Using External Driving Method (+ \$

Chung-Lung Lin, Yu-Zhan Tsai, Min-Chin Chuang, Chia-Che Hung (Nat'l Cheng Kung Univ., Taiwan)

• **Wed-P1-16**

Oxygen Plasma effects on Indium oxide-based thin film transistors (+ (

Chao-Feng Sung, Yuh-Zheng Lee (ITRI, Taiwan), Dhananjay, Chih-Wei Chu (Academia Sinica, Taiwan)

• **Wed-P1-17**

The Effect of Helium Gas on Microcrystalline Silicon Thin Film Transistors (++

Chiung Wei Lin, Yao-Chang Tsai, Yi-Liang Chen (Tatung Univ., Taiwan), Chi-Neng Mo (Chunghwa Picture Tubes Ltd., Taiwan)

• **Wed-P1-18**

Low temperature Top-Gate Amorphous IGZO Thin Film Transistors and Inverter Fabricated on Polyimide and glass substrates (+ -

Chang-Yu Lin (ITRI / Nat'l Taiwan Univ., Taiwan), Geng-Tai Ho, Ming-Jiue Yu, Shou-En Liu, Chun-Cheng Cheng, Chih-Ming Lai, Yung-Hui Yeh, Chyi-Ming Leu, Cheng-Han Wu, Chih-Wei Chien, Hsing-Hung Hsieh, Chung-Chih Wu (ITRI, Taiwan)

• **Wed-P1-19**

Process Steps Reduction by Excimer Laser Direct Patterning in Organic-Based Passivation a-Si:H TFT LCD Fabrication (, %

Kuo Hui Su, Chao-Nan Chen, Fan-Wei Chang, Yu-Chien Lai, Min-Chi Wang, Shin-Chuan Chiang (Taiwan TFT-LCD Association, Taiwan)

• **Wed-P1-20**

Improvement of the Driving Voltage Schemes for Cholesteric LCDs (,)

Chang-Ho Liou, Chin-Ming Lai, Kuo-Hua Tseng, Ming-Daw Chen (ITRI, Taiwan)

• **Wed-P1-21**

Stability of IZO Thin Film Transistor Device Fabricated by Solution Process (, +

Yu Chien Lai, Chin-Chih Yu, Fan-Wei Chang, Liang-Yu Lin, Min-Chi Wang, Shin Chuan Chiang (Taiwan TFT-LCD Association, Taiwan)

• **Wed-P1-22**

Solution-Processed Indium-Zinc Oxide Thin Film Transistors and the Influences of Stoichiometry (- %

Chang-Ken Chen, Hsing-Hung Hsieh, Chung-Chih Wu (Nat'l Taiwan Univ., Taiwan)

Poster Session | 3D Systems and Applications

• **Wed-P2-01**

A high quality Autostereoscopic 2D/3D Switchable Display (- (

Chun-Wei Wu, Long-Cai Jhuo, Cheng-Chun Hu (Chunghwa Picture Tubes, Ltd., Taiwan)

• **Wed-P2-02**

Multi-view Viewpoint Based Dense Depth Map Generation (- *

Kai-Che Liu, Chun-Te Wu, Chin-Yuan Wang (ITRI, Taiwan)

• **Wed-P2-03**

Liquid crystal pixel for improving efficiency of barrier type autostereoscopic three-dimensional displays) \$\$

Chiu-Ting Hsieh, Shang-Chih Chuang, Cheng-Huan Chen (Nat'l Tsing Hua Univ., Taiwan), Chi-Lin Wu, Wallen Mphépö, Yi-Pai Huang (Nat'l Chiao Tung Univ., Taiwan), Shih-Chia Hsu, Ching-Huan Lin, Chih-Jen Hu (AU Optronics Corp., Taiwan)

• **Wed-P2-04**

ARM Based 3D Photo Frame) \$(

Kai-Che Liu, Fu-Chiang Jan, Wei-Liang Hsu, Feng-Hsiang Lo (ITRI, Taiwan)

• **Wed-P2-05**

4DCap: Dynamic 3D Objects Interactive System) \$,

Chih-Jen Teng, Wen-Chao Chen, Fu-Jen Hsiao, Te-Chin Shao (ITRI, Taiwan)

• **Wed-P2-06**

Towards Real time Interaction with an Auto-stereoscopic Display – gCubik -) %&

Roberto Lopez-Gulliver, Shunsuke Yoshida, Sumio Yano, Naomi Inoue (NICT / ATR, Japan)

• **Wed-P2-07**

3-D Reconstruction using Surface Detection) %&

Woo-Seok Jang, Kwan-Jung Oh, Yo-Sung Ho (GIST, Korea)

• **Wed-P2-08**

Novel direct emission backlight system of 4-view time-multiplexed 3D display) &\$

Ching-Wen Wei, Ching-Yi Hsu, Yi-Pai Huang (Nat'l Chiao Tung Univ., Taiwan), Huang-Min Chen (Chuanghwa Picture Tubes, Ltd., Taiwan)

• **Wed-P2-09**

Novel Multi-View Generation Algorithm Based on Two-Layered Depth Image for 3DTV) &(

Chia-Ming Cheng, Shu-Jyuan Lin, Shang-Hong Lai (Nat'l Tsing Hua Univ., Taiwan), Kuen Lee (ITRI, Taiwan)

• **Wed-P2-10**

Investigation of Dynamic Crosstalk for 3D Display) &+

Yu-Cheng Chang, Chieh-Yao Chiang, Kuo-Tsung Chen, Yi-Pai Huang (Nat'l Chiao Tung Univ., Taiwan)

• **Wed-P2-11**

A Novel Region-arbitrary Autostereoscopic Display) ' %

Chi-Chung Tsai, Ming-Der Chou, Chia-Lin Liu, Chi-Neng Mo (Chunghwa Picture Tubes, Ltd., Taiwan)

• **Wed-P2-12**

Generation of Dense Image Matching Using Epipolar Geometry) ')

Maw-Kae Hor, Kai-Hsuan Chan, Jui-Yang Tsai (Nat'l Cheng Chi Univ., Taiwan), Wen-Chao Chen (ITRI, Taiwan), Cheng-Yuan Tang, Yi-Yu Chen (Huafan Univ., Taiwan), Yi-Leh Wu (Univ. of Science and Technology, Taiwan)

• **Wed-P2-13**

Using 3D Patches for Refinement of 3D Reconstruction from Multiple Images) ' -

Maw-Kae Hor, Jeng-Jiun Tsai, Kai-Hsuan Chan (Nat'l Cheng Chi Univ., Taiwan), Wen-Chao Chen (ITRI, Taiwan), Cheng-Yuan Tang (Huafan Univ., Taiwan), Yi-Leh Wu (Univ. of Science and Technology, Taiwan)

• **Wed-P2-14**

Refinement of 3D Models Reconstructed from Visual Hull) ((

Maw-Kae Hor, Kai-Hsuan Chan, Kun-Shin Wu (Nat'l Cheng Chi Univ., Taiwan), Hsien-Chang Lin, Wen-Chao Chen (ITRI, Taiwan), Cheng-Yuan Tang (Huafan Univ., Taiwan), Yi-Leh Wu (Univ. of Science and Technology, Taiwan)

• **Wed-P2-15**

Moiré Pattern Reduction by Using Multi-pitch Parallax Barrier in an Autostereoscopic Display) (,

Wei-Liang Hsu, Chi-Lin Wu, Chao-Hsu Tsai, Shih-Wen Yang (ITRI, Taiwan)

• **Wed-P2-16**

Fabrication of In-cell Microretarder & In-cell Polarizer for Stereoscopic LCD by Solution Process)) &

Chao-Te Lee, Hoang-Yan Lin (Nat'l Taiwan Univ., Taiwan), Chao-Hsu Tsai (ITRI, Taiwan), Wei-Chih Liu (Taiwan TFT LCD Association, Taiwan)

• **Wed-P2-17**

The status of 3D display measurement standard)) *

Kuo-Chung Huang, Lang-Chin Lin, Kuen Lee (ITRI, Taiwan), Hoang-Yan Lin (Nat'l Taiwan Univ., Taiwan)

• **Wed-P2-18**

Crosstalk issue in Stereo/autostereoscopic display) * \$

Kuo-Chung Huang, Kuen Lee (ITRI, Taiwan), Hoang-Yan Lin (Nat'l Taiwan Univ., Taiwan)

• **Wed-P2-19**

Rotation Invariant Correlation and its Application to Dense 3D Extraction) *)

Zhi-Wei Gao, Wen-Kuo Lin, Yu-Shian Shen, Chia-Yen Lin, Chih-Cheng Chang (TECO Group Research Institute, Taiwan)

• **Wed-P2-20**

The Application of Three-Dimensional Monitor in Microscopic Vascular Anastomosis) * -

Tien-Hsiang Wang, Chao-Hsu Tsai, Hsu Ma (Taipei Veterans General Hospital, Taiwan), Wei-Liang Hsu (ITRI, Taiwan)

• **Wed-P2-21**

Design and Analysis of Electro-Holography in 3D Displays) +&

Chun-Wei Su, Jan-Tien Lien, Ming-Der Chou, Chien-Lung Tsou, Chi-Neng Mo (Chunghwa Picture Tubes, Ltd., Taiwan)

• **Wed-P2-22**

3D Display System Using Grating Film for Stereo Image Separation) +)

Kunio Sakamoto, Takashi Ohara (Konan Univ, Japan), Shusaku Nomura (Nagaoka Univ. of Technology, Japan),

Tetsuya Hiroto, Kuninori Shiwaku, Masahito Hirakaw (Shimane Univ., Japan)

- **Wed-P2-23**
Registration Progress Report for 3-D Object Display) +-
Daniel Moldovan, Sumio Yano, Naomi Inoue (NICT, Keihanna Lab, Japan)
- **Wed-P2-24**
Lens design of the optical system of a 3D Head-Mounted Display) , &
Chien-Yue Chen, Yang-Hua Chang , Min-Ying Tsai (Nat'l Yunlin Univ. of Science and Technology, Taiwan)
- **Wed-P2-25**
A Novel 2D to 3D Conversion Technology Based on Image Analysis) ,)
Chien-Hung Chen, Hsiang-Tan Lin, Meng-Chao Kao, Chun-Chieh Chiu (Chunghwa Picture Tubes, Ltd., Taiwan)
- **Wed-P2-26**
A 2D/3D Video Conversion Scheme Based on Multiple Depth Cue Analyses) , ,
Guo-Shiang Lin (Da Yeh Univ., Taiwan), Cheng-Ying Yeh, Wen-Nung Lie (Nat'l Chung Cheng Univ., Taiwan), Kai-Che Liu, Wen-Chao Chen (ITRI, Taiwan)
- **Wed-P2-27**
Noise Reduction in Digital Holography) - &
Hyun-Jun Choi, Young-Ho Seo, Ji-Sang Yoo, Dong-Wook Kim (Kwangwoon Univ., South Korea)
- **Wed-P2-28**
3D data acquisition using the ground vehicle) - +
Tzung-Han Lin (ITRI, Taiwan)
- **Wed-P2-29**
Spatial Images Localization using SIFT features tracking *** \$%
Tzung-Han Lin (ITRI, Taiwan), Yao-Jen Chan, Zhaoyin Jia, Tsuhan Chen (Carnegie Mellon Univ., USA)
- **Wed-P2-30**
Stereoscopic based Digital Signage System *** \$)
Kugjin Yun, BongHo Lee, Hyun Lee, Namho Hur, Jinwoong Kim (ETRI, Korea), Yoonjin Lee (Univ. of Kyunghee, Korea)
- **Wed-P2-31**
Electronic holography using horizontal scanning *** \$-
Naoya Okada, Yasuhiro Takaki (Tokyo Univ. of Agriculture and Technology, Japan)
- **Wed-P2-32**
Hardware Implementation of Real-time Stereo Matching Algorithm *** %
Wan-Soo Shin, Hyun-Jun Choi, Ji-Sang Yoo, Dong-Wook Kim, Young-Ho Seo (Kwangwoon Univ., South Korea)
- **Wed-P2-33**
Multiview Imaging for 3D Displaying *** %&
Sabri Gurbuz, Shoichiro Iwasawa, Shunsuke Yoshida, Sumio Yano, Naomi Inoue (NICT Universal Media Research Center, Japan)
- **Wed-P2-34**
A Single-lens Stereoscopic Camera with a Symmetrical Prism Pair *** &\$
Chien-yue Chen, Zhi-Sheng Cheng, Qing-Long Deng, Yi-Fan Wang (Nat'l Yunlin Univ. of Science and Technology, Taiwan)
- **Wed-P2-35**
Viewer-Tracking 3D Display *** &'
Wu-Li Chen, Jian-Chiun Liou, Kuen Lee, Chun-Fu Lu, Chang-Shuo Wu, W. L. Hsu, Ching-Chiu Liao (ITRI, Taiwan)
- **Wed-P2-36**
The Development of the Integrated-Screen Autostereoscopic Display System *** &+
Wu-Li Chen, Wei-Liang Hsu, Chao-Hsu Tsai, Chy-Lin Wang, Chang-Shuo Wu, Ying-Chi Chen, Shu-Chuan Cheng (ITRI, Taiwan)
- **Wed-P2-37**
Comparison of Stereo Matching Algorithm on Image Quality for Depth Map Rendering ***' &
Jinn-Cherng Yang, Chang-Shuo Wu, Kuen Lee (ITRI, Taiwan), Shang-Hong Lai (Nat'l Tsing Hua Univ., Taiwan)
- **Wed-P2-38**
Shutter-Glasses Type 3D Display with Dynamic Backlight ***' *
Jian-Chiun Liou, Wei-Ting Yen, Kuen Lee (ITRI, Taiwan)
- **Wed-P2-39**
Enhancing GraphCut Algorithm Based Depth Map Generation by Using Moving Objects Detection *** (\$
Jaeho Lee, Gun Bang, Namho Hur, Jinwoong Kim (KAIST, South Korea), Changick Kim (Korea Advanced Institute of Science and Technology, South Korea)
- **Wed-P2-40**
Fabrication of Polymeric Microretardation Film Using Thermal Printing Technology *** ((
Ying-Chi Chen, Rung-Ywan Tsai, Chao-Hsu Tsai (ITRI, Taiwan)
- **Wed-P2-41**
Fabrication of Microretarder Film Using Indirect Laser Heating *** (,
Ying-Chi Chen, Rung-Ywan Tsai, Seung-Ho Baek (ITRI, Taiwan)
- **Wed-P2-42**
3D display measurement using luminance meter ***) &
Chou-Lin Wu, Kuo-Chung Huang, Ching-Chiu Liao, Kuen Lee (ITRI, Taiwan)
- **Wed-P2-43**
2D/3D switchable autostereoscopic display ***) +
Chun-Fu Lu, Jinn-Cherng Yang, Wei-Liang Hsu, Chao-Hsu Tsai, Kuen Lee (ITRI, Taiwan)
- **Wed-P2-44**
The Real-time Stereoscopic Monitor and Display System A Special Case for the Constant Rotary Target Object *** * %

Chien-Yue Chen, Qing-Long Deng, Zhi-Sheng Cheng, Yi-Fan Wang (Nat'l Yunlin Univ. of Science and Technology, Taiwan)

- **Wed-P2-45**
Auto-stereoscopic Display Apparatus with Segmented Lenticular Array *** (Lang-Chin Lin, Kuen Lee, Wei-Liang Hsu (ITRI, Taiwan))
- **Wed-P2-46**
Study on the Performance of Sub-Pixel Arrangement on NVIDIA CUDA *** , Chang-Shuo Wu, J.C. Yan, C. L. Wu, K. Lee, C. S. Tsai (ITRI, Taiwan)
- **Wed-P2-47**
Multi-modal Interface for Interactive Display System *** +& Sanghoon Lee, Hyeran Byun (Yonsei Univ., Korea), Min-Chul Park (Korea Institute of Science and Technology, Korea)
- **Wed-P2-48**
Stereoscopic 3D Display using Patterned Retarder *** ++ Yu-June Wu, Yue-Shih Jeng, Pi-Chun Yeh, Chin-Jen Hu, Wei-Ming Huang (AU Optronics Corp., Taiwan)
- **Wed-P2-49**
Multichannel audio service system on Satellite DMB environment *** , & Yong Ju Lee, Jeongil Seo, Seung Kwon Beack, Kyeongok Kang (Electronics and Telecommunications Research Institute, Korea)
- **Wed-P2-50**
4D Vessel Image Reconstruction System *** . * Chin-An Lin, Chien-Hsing Huang, Guo-Zua Wu (ITRI, Taiwan)
- **Wed-P2-51**
Four Viewing Direction Display for Collaborative Work on Round Table *** - \$ Kunio Sakamoto, Mitsuru Okumura (Konan Univ, Japan), Shusaku Nomura (Nagaoka Univ. of Technology, Japan), Tetsuya Hiroto, Kuninori Shiwaku, Masahito Hirakawa (Shimane Univ., Japan)
- **Wed-P2-52**
Position Measuring and Reconstruction Method of Group Activity in Mixed Reality Environment *** - (Kunio Sakamoto, Tomonori Otsuka, (Konan Univ, Japan), Shusaku Nomura (Nagaoka Univ. of Technology, Japan), Tetsuya Hiroto, Kuninori Shiwaku, Masahito Hirakawa (Shimane Univ., Japan)

Poster Session | Emissive & Other Displays

- **Wed-P3-01**
Virtual Screen and Its Applications for Windows *** - , Tai-Wen Yue, Chia-Cheng Kuo (Tatung Univ., Taiwan), Chi-Neng Mo, Hsueh-Fang Yin (Chunghwa Picture Tubes, Ltd., Taiwan)
- **Wed-P3-02**
Invisible Two-dimensional Code Display Unit for Group Activity on Life Review Therapy ***+\$& Kunio Sakamoto, Tomofumi Yamanari, (Konan Univ, Japan), Shusaku Nomura (Nagaoka Univ. of Technology, Japan), Tetsuya Hiroto, Kuninori Shiwaku, Masahito Hirakawa (Shimane Univ., Japan)
- **Wed-P3-03**
Luminescence of ZnS:Cu,Cl Phosphor Powder Excited by Photons, an Electric Field and Cathode Rays ***+\$* Yung-Tang Nien, In-Gann Chen (Nat'l Cheng Kung Univ., Taiwan)
- **Wed-P3-04**
Full Color Cholesteric Liquid Crystal Display with Dual Stacking Structure ***+\$, Kuan-Ting Chen, Yuan-Chang Liao, Jen-Chieh Yang, Jyh-Wen Shiu, Yi-Shou Tsai, Kuan-Wei Wu, Chih-Jen Chen, Chien-Chih Hsu, Cheng-Chung Wu, Wen-Chih Chen, Chih-Lung Chin (ITRI, Taiwan)
- **Wed-P3-05**
Synthesis and Characterization of Ga-doped ZnO Nanostructures with Different Oxygen Flow Rates ***+% Cheng-Hsun Tsai, Shuo-Xun Li, Su-Hua Yang (Nat'l Kaohsiung Univ. of Applied Sciences, Taiwan)
- **Wed-P3-06**
The Study of image processing technology in 25 inch low-work-function printable Field Emission Display ***+(Zhixian Lin, Tailliang, Guo, Yun Ye (Fuzhou Univ., China)
- **Wed-P3-07**
Enhancement of field emission property by modifying sprawling carbon nanotubes using ion bombardment technology ***+% Jian-Min Jeng, Chen-Pang Huang, Wen-Ching Shih (Tatung Univ., Taiwan), Jason Lo (Tatung Company, Taiwan), Chi-Neng Mo, Mei-Tsao Chiang (Chunghwa Picture Tubes, Ltd., Taiwan)
- **Wed-P3-08**
A Novel Laser Projection System by Use of the Beam-Shaping Method to Reduce the Speckle Phenomenon ***+% Wei-Feng Hsu, Chuan-Feng Yeh (Nat'l Taipei Univ. of Technology, Taiwan)

Poster Session | Flexible Display

- **Wed-P4-01**
Control of the dispersion capability of PMMA-coated TiO₂ particles for electronic paper application ***+&) Min Ho Son, Won-Keun Kim, Soon-Hyung Kwon, Jeong-In Han (Korea Univ., Korea), Byeong-Kwon Ju (Korea Univ., Korea)
- **Wed-P4-02**
Geometry Effect of the Polycrystalline Pentacene Thin Film Transistor with ITO Electrodes ***+&-

Yu Wu Wang, De-zhi Liu, Ming-Yuan Hong (Nat'l Changhua Univ. of Education, Taiwan)

- **Wed-P4-03**
Development of High Performance Flexible Gas-Barrier Substrate &
Hsiao-Fen Wei, Liang-You Jiang, Pao-Ming Tsai, Hung-Uang Lee, Dong-Sen Chen, Ming-Liang Tsai, Yun-Chiao Hsiao, Yu-Yang Chang (ITRI, Taiwan), Dong-Sing Wu, C.C. Lai (Nat'l Chung Hsing Univ., Taiwan)
- **Wed-P4-04**
Indium-Gallium-Zinc Oxide Transparent Thin-Film Transistors on the Flexible Stainless Steel Foil *
Chin-Yi Hsu, Tse-Hsien Lee, Pei-Yi Kao, Huang-Ming Philip Chen (Nat'l Chiao Tung Univ., Taiwan), Huai-An Li, Chi-Neng Mo (Chunghwa Picture Tubes, Ltd., Taiwan), Kevin Chou (Everlight Chemical Industrial Corp., Taiwan)
- **Wed-P4-05**
Flexible pentacene thin-film transistors fabricated on polystyrene/polyamide bilayer gate dielectrics -
Chin-Tsou Kuo, Ying-Hao Chen (Tatung Univ., Taiwan)
- **Wed-P4-06**
Single-substrate Cholesteric Liquid Crystal Displays in Environment Test (*
Cheng-Hsi Hsieh, Kuo-Chang Lee, Jyh-Wen Shiu (ITRI, Taiwan)
- **Wed-P4-07**
Mechanical Properties of Aluminum-doped Zinc Oxide Transparent Conducting Films Prepared by Sol-gel Process (*
Yung-Yu Chen, Yung-Jen Lin, Chia-Hao Yang, Cheng-Wei Lin (Tatung Univ., Taiwan), Yao-Li Cheng (Chunghwa Picture Tubes, Ltd., Taiwan)
- **Wed-P4-08**
The application of thermoplastic polyimide in the flexible display (,
Keng-Yu Tsao, Chi-Yuan Huang, Ruei-Shu Chou, Chi-shan Tsai (Tatung Univ., Taiwan), Chi-Neng Mo (Chunghwa Picture Tubes, Ltd., Taiwan)
- **Wed-P4-09**
Fast Cell Filling with a Constant Cell Pressure for Flexible Liquid Crystal Displays (%
Ching-Ming Hsu, Chia-Jen Chang, Wen-Taun Wu (Southern Taiwan Univ., Taiwan)
- **Wed-P4-10**
A Variable Time Gap Dynamic Driving parameters measurement System for Bistable Cholesteric LCD (++)
Zheng Wei Sun, Chiao-Nan Huang, Wu-Jeng Li, Heng-Yin Chen, Tai-Ann Chen, Ju-Yen Su, Chao-Chiun Liang (ITRI, Taiwan)
- **Wed-P4-11**
Fabrication of nano-crystalline silicon thin film on flexible substrate by cathodic vacuum arc (+) -
Tsung Ying Lin, Zi-Jie Liao, Jeff Tsai (Tatung Univ., Taiwan), Daniel Chua (Univ. of Singapore, Singapore), Jia-Ling Peng, Chia-Lin Liu, Chi-Neng Mo (Chunghwa Picture Tubes, Ltd., Taiwan)

Poster Session | LCD Components & Materials

- **Wed-P5-01**
Optical Simulation and Analysis of Visible-light Excited Phosphor Sheet (VEPS) System (++)
Bo-Wen Xiao, Chien-Hsiang Hung, Hsin-Tao Huang, Yi-Pai Huang, Chung-Hao Tien, C. C. Tsai, Han-Ping D. Shieh (Nat'l Chiao Tung Univ., Taiwan), Jerry Chen, Jeremy Lin, Win-Chi Chang (KISmart Corp., Taiwan)
- **Wed-P5-02**
Design and Implementation High Power-LED Module Driving System for LED Backlighting Large-area LCD Displays (++)
Chun-Wei Su, Chin-I Chiang, Chien-Lung Tsou, Chi-Neng Mo (Chunghwa Picture Tubes, Ltd., Taiwan)
- **Wed-P5-03**
Formation Study for the Metallic Au Nanostructures Using in Backlight layer of a Light Emitting Device (++)
Yeong Der Yao (Tatung Univ., Taiwan), Da Hua Wei (Nati'l Taipei Univ. of Technology, Taiwan), Chia You Hsu, Sen Yu Hsu, Pei Kuen Wei (Academia Sinica, Taiwan), Ming Der Chou, Chi Neng Mo (Chunghwa Picture Tubes Ltd., Taiwan)
- **Wed-P5-04**
Development of high anti-reflection structure layers by ink-jet printing (++)
Hong-Ming Lin, Zih-Jie Jian, Hang-Jui Hsu, Wei-Syuan Lin, Wei-Jen Liou (Tatung Univ., Taiwan), Wen-Jen Hsieh, Feng-Ching Tang, Chi-Hsin Li (Chunghwa Picture Tubes, Ltd., Taiwan)
- **Wed-P5-05**
RAM-Less MIPI (Mobile Industry Processor Interface) Display Client for Mobile Internet Devices and Other Hand-held Devices (++)
Allen Tung (California Micro Devices, USA)
- **Wed-P5-06**
Preparation and characterization of non-contact alignment layer by molecular self-assembled method (++)
Yao-Jane Hsu, Y. C. Lin, Y. L. Lai, D. H. Wei (Nat'l Synchrotron Radiation Research Center, Taiwan), Chun-Mei Chen, Shu-Wei Kuo, Jin-Hao Jhang, W. H. Hung (Nat'l Taiwan Normal Univ., Taiwan), Ze-Yu Yen, Ding-Jen Chen (Taiwan TFT LCD Association, Taiwan)
- **Wed-P5-07**
A Compact 12-Bit Digital-to-Analog Converter for LCD Driver ICs (B#
Shu-Chuan Huang, Chun-Hsien Chou, Chih-Cheng Wang (Tatung Univ., Taiwan), Chih-Cheng Wang (Chunghwa Picture Tubes Ltd. Taiwan)
- **Wed-P5-08**
Analysis of Gray-to-Gray Response Curves of FPD by Various Filters (++) , %

Shau-Wei Hsu, Kuei-Neng Wu, Sheng-Tzung Kuo, Bao-Jen Pong (ITRI, Taiwan), Kuei-Po Chen (Nat'l Taiwan Univ., Taiwan)

- **Wed-P5-09**
Polydimethylsiloxane Thin Films for Vertical Alignment of Liquid Crystals , (Wenjun Zheng, Lu-Hsiang Yang, Ming-Hong Huang, Chung-Lung Ko (Nat'l Sun Yat-Sen Univ., Taiwan)
- **Wed-P5-11**
Minimizing Voltage-dependent Color Shift in Reflective Cholesteric LCDs , , Cheng-Fu Cheng, Huang-Ming P. Chen, Wei-Chung Cheng (Nat'l Chiao Tung Univ., Taiwan), Jih-Fon Huang (ITRI, Taiwan)
- **Wed-P5-12**
Anchoring energy of nanoparticles as vertical alignment layers in liquid crystal displays +- % Yan-Rung Lin, Chia-Wei Kuo, Mei-Ju Lee, Chi-Chang Liao (ITRI, Taiwan), Jow-Tsong Shy (Nat'l Tsing Hua Univ., Taiwan)
- **Wed-P5-13**
Coatable Birefringent Film Aligned by Ion-Beam-Treated Polyimide +- (Hui-Mei Liu, Wei-Ren Tu, Wei-Chih Liu (Taiwan TFT-LCD Association, Taiwan)
- **Wed-P5-14**
Pre-imidized polyimide using in a low temperature process +- , Yan-Rung Lin, Mei-Ju Lee, Chia-Wei Kuo, Chun-Kang Ku, Chi-Chang Liao (ITRI, Taiwan)
- **Wed-P5-15**
Atmospheric Plasma as a Tool for Tuning Vertical Liquid Crystal Alignment , \$% Oleg Yaroshchuk, R. Kravchuk, S. Pogulyai, S. Tsiolko (Institute of Physics, NASU, Ukraine, Ukraine)
- **Wed-P5-16**
Preferred Luminance and Image Quality of Flat Panel Display , \$ Yueh-Yi Lai, Wen-Hung Liao, Ran-How Chen, Sheng-Po Wang (Taiwan TFT-LCD Association, Taiwan)
- **Wed-P5-17**
The design of LED side-lighting backlight system by micromachining technology , \$- Chao Heng Chien, Zhi-Peng Chen (Tatung Univ., Taiwan), Chi-Neng Mo, Tzung-Yang Li (Chunghwa Picture Tubes, Ltd., Taiwan)
- **Wed-P5-18**
Color Breakup Suppression in Color Filter-Less LCDs by Optimized Stencil-Field-Sequential-Color Method , % Chi-Chu Tsai, Fang-Cheng Lin, Ching-Ming Wei, Yi-Pai Huang , Han-Ping D. Shieh (Nat'l Chiao Tung Univ., Taiwan), Shian-Jun Chiou, Wen-Chih Tai (Chunghwa Picture Tubes, Ltd., Taiwan)
- **Wed-P5-19**
A Novel Light-bar Scanning Control Technology for Side-light LED Backlight Large-area Displays , %+ Chin-I Chiang, Chun-Wei Su, Tzu-Pin Lin, Tzung-Yang Li, Chien-Lung Tsou, Chi-Neng Mo (Chunghwa Picture Tubes, Ltd., Taiwan)

Poster Session | Manufacturing

- **Wed-P6-01**
Embedded Capacitive Touch Panel for Field Sequential Color Display , &\$ Chih-Chung Chen, Ming-Ta Hsieh, Chien-Ming Lin, Hsueh-Fang Yin, Ching-Ho Li, Yi-Nan Chu, Huai-An Li (Chunghwa Picture Tubes, Ltd., Taiwan)
- **Wed-P6-02**
Two-Axes Rotatable Micromirror Array for Applications of MEMS Display , & Pin-Hsu Kao, Ching-Liang Dai (Nat'l Chung Hsing Univ., Taiwan), Cheng-Chih Hsu (Yuan Ze Univ., Taiwan), Chi-Neng Mo, Chien-Pang Lee, Ming-Wei Huang (Chunghwa Picture Tubes, Ltd., Taiwan)
- **Wed-P6-03**
Infinite Capacity Planning for Color Filter Fabs , &+ James C. Chen, Gary C. Chao, Cheng-Ju Sun, Kuo-Jung Chao, Jui-Wei Chien (Chung Yuan Christian Univ., Taiwan), Chih-Cheng Chen, Chi-Neng Mo, Tzu-Wei Peng, Yu-Yao Wei, Chao-Hsuan Feng, Yu-Chen Liu, Mei-Tsao Chiang (Chunghwa Picture Tubes, Ltd., Taiwan)
- **Wed-P6-04**
In-Situ Time-Resolved Optical Inspection System for Silicon Thin Films , ' % Chil-Chyuan Kuo, Chin-Sheng Chao (Ming Chi Univ. of Technology, Taiwan)
- **Wed-P6-05**
Low temperature process for the preparation ZnO-NCs thin film transistors , ' (Heh-Chang Huang, Ming-Huan Yang, Tsung-Eong Hsieh, (Department of Materials Science and Engineering, Taiwan), Chao-Feng Sung (ITRI, Taiwan)
- **Wed-P6-06**
Novel electroless copper plating as gate electrodes for a-TFTs AMLCD application , ' + Chih-Yu Su, Yi-Teh Chou, Po-Tsun Liu (Nat'l Chiao Tung Univ., Taiwan), Hung-Ming Chen (Air Liquide Laboratories, Japan)
- **Wed-P6-07**
Preparation of nano-scale ZnO and IGZO₄ suspensions using a hybrid of chemical dispersion and mechanical grinding process , (% Chun Chieh Lo, Yin Hsien Huang, Tsung-Eong Hsieh (Department of Materials Science and Engineering, Taiwan), Chuang-Hung Chiu, Huai-An Li, Chi Neng Mo (Chunghwa Picture Tubes, Ltd., Taiwan)
- **Wed-P6-08**
Preparation the Anti-finger print films by microemulsion , () Yi Hu, Jiun-Shing Liu, Jhong-Ming Lyu (Tatung Univ., Taiwan), Ricci Li, Wen-Chin Hung (Chunghwa Picture Tubes, Ltd., Taiwan)
- **Wed-P6-09**
Skin-color extraction algorithm developed in skin-based color space , (-

Yu-Chia Hsu, Hung-Shing Chen (Nat'l Taiwan Univ. of Science and Technology, Taiwan)

- **Wed-P6-10**
The Design of Spatial Gamut Mapping Algorithms Applying on Display Color Correction,)'
Hung-Shing Chen (Nat'l Taiwan Univ. of Science and Technology, Taiwan), Pei-Li Sun (Shin-Hsin Univ, Taiwan)
- **Wed-P6-11**
Fabrication of Organic Thin-Film Transistor Arrays by Using Ink-Jet Printing Technology,) +
Chi-Shian Wu, Jung-An Cheng, Pei-Yi Kao, Han-Ping D. Shieh (Nat'l Chiao Tung Univ., Taiwan), Chi-Neng Mo, Huai-An Li, Shou-Cheng Weng, Mei-Tsao Chiang (Chunghwa Picture Tubes, Ltd., Taiwan)
- **Wed-P6-12**
Ambient Light Adaptive Compensation on TV System, * \$
Jing-Chi Huang, Hung-Shing Chen, Jia-Fong Lee (NTUST, Taiwan)
- **Wed-P6-13**
Quantifying the Edge Effect of the Image-Sticking Phenomenon in a Wide Range of Spatial, *)
Frequencies Jung Chih Su (Taiwan TFT-LCD Association, Taiwan)
- **Wed-P6-14**
Inkjet Printed Organic Thin-Film Transistor Arrays for Active-Matrix Backplane, * -
Jung-An Cheng, Pei-Yi Kao, Chi-Shian Wu, Han-Ping D. Shieh (Nat'l Chiao Tung Univ., Taiwan), Chi-Neng Mo, Huai-An Li, Shou-Cheng Weng, Mei-Tsao Chiang, Shang-Chih Wu (Chunghwa Picture Tubes, Ltd., Taiwan)

Poster Session | OLED

- **Wed-P7-01**
Enhanced effect of ZnO nanoparticles on DB-PPV base polymer light-emitting diodes, +'
Ming-Lung Tu (Fortune Institute of Technology, Taiwan), Yan-Kuin Su, Chen-Han Yeh (Nat'l Cheng Kung Univ., Taiwan)
- **Wed-P7-02**
New Current Programmed Pixel Circuit for Active-Matrix Organic Light-Emitting-Diode Displays, +*
Fang-Hsing Wang, H. C. Lin, P. S. Shih, L. Y. Lin, H. W. Liu (Nat'l Chung Hsing Univ., Taiwan)
- **Wed-P7-03**
High efficiency and low operation voltage green PhOLED employs a pure hydrocarbon host material, , \$
Hao-Chih Chiu, Wen-Yi Hung (NTOU, Taiwan), Liang-Chen Chi, Ken-Tsung Wong (Nat'l Taiwan Univ., Taiwan)
- **Wed-P7-04**
High-Luminescence Non-Doped Green OLEDs, , '
Shih-Wei Yang, Tsung-Cheng Tsai, Wen-Yi Hung (NTOU, Taiwan), Sung-Yu Ku, Liang-Chen Chi, Ken-Tsung Wong (Nat'l Taiwan Univ., Taiwan)
- **Wed-P7-05**
A Rare Solution-Processable Molecular Host Material for Blue Phosphorescence Dopants in Organic Light-Emitting Diodes, , +
Min-Fei Wu, Shun-Wei Liu, Chin-Ti Chen (Academia Sinica, Taiwan), Wei-Ben Wang, Mao-Feng Hsu, Chun-Jan Wang, Shih-Ming Shen, Jwo-Huei Jou (Nat'l Tsing Hua Univ., Taiwan)
- **Wed-P7-06**
Enhanced Light extraction by Network Nanostructures for High Performance Display Applications, - \$
K. Y. Peng, Y. D. Yao, J. K. Wu (Tatung Univ., Taiwan), D. H. Wei (Nat'l Taipei Univ. of Technology, Taiwan), Rachel Chiang, C. N. Mo (Chunghwa Picture Tubes Ltd., Taiwan)
- **Wed-P7-07**
High Efficiency Donor-Acceptor-Substituted Fluorenes as Yellow and Green Non-Dopant Fluorophores for Organic Light-Emitting Diodes, - (
Cheng-Lung Wu, Chih-Long Chiang, Chin-Ti Chen (Academia Sinica, Taiwan)
- **Wed-P7-08**
High Efficiency Organic Light-Emitting Diodes: Unusual Charge Balancing of Bipolar Blue Fluorophores with Reduced Hole-Mobility, - +
Chih-Chin Chi, Chih-Long Chiang, Shun-Wei Liu, Chin-Ti Chen (Academia Sinica, Taiwan), Han Yueh, Chao-Tsen Chen (Nat'l Taiwan Univ., Taiwan)
- **Wed-P7-09**
Highly Efficient Green PhOLEDs with ET-type Host Materials - \$\$
Zhen-Han Tsai, Wen-Yi Hung (NTOU, Taiwan), Hsiao-Fan Chen, Ken-Tsung Wong (Nat'l Taiwan Univ., Taiwan)
- **Wed-P7-10**
White OLED with High Color Rendering Capability with Employing Two Complementary Colors - \$'
Chih-Hao Chang, Chung-Chia Chen, Chih-Che Liu, Chung-Chih Wu (Nat'l Taiwan Univ., Taiwan), Sheng-Yuan Chang, Yun Chi (Nat'l Tsing Hua Univ., Taiwan)
- **Wed-P7-11**
Microcavity Top-Emitting OLEDs Integrated with Micro-particle Diffusers: Simultaneous Enhancement of Efficiency and Viewing Characteristics - \$+
Kun-Cheng Tien, Chih-Che Liu, Su-Hao Liu, Min-Hung Hsu, Hong-Wei Chang, Chih-Kai Chang, Chung-Chih Wu (Nat'l Taiwan Univ., Taiwan)
- **Wed-P7-12**
Single Emitting Layer White Light Emitting Devices Based on Bisindolylmaleimide Fluorophores - %\$
Zhenghuan Lin, Yuh-Sheng Wen, Tahsin J. Chow (Academia Sinica, Taiwan)
- **Wed-P7-13**
Diphenylanthracene-Based Blue Light-Emitting Polymers - %%

Hung-Yang Chen, Chin-Ti Chen (Academia Sinica, Taiwan)

- **Wed-P7-14**
Enhancements on Luminance and Efficiency of Fluorescent Organic Light-Emitting Diodes by Using 4,7-diphenyl-1,10-phenanthroline
Shih Fong Huang, Su-Hua Yang, Chi-Hung Chung, Chien-Hua Chang (Nat'l Kaohsiung Univ. of Applied Sciences, Taiwan)
- **Wed-P7-15**
High-Efficiency Fluorescent White Organic Light-Emitting Diodes Using Double Hole-Transporting-Layers
Jwo-Huei Jou, Shih-Ming Shen, Cheng-Chung Chen, Ming-Hsuan Wu, Wei-ben Wang, Chi-Ping Liu (Nat'l Tsing Hua Univ., Taiwan)
- **Wed-P7-16**
Ambipolar Charge Transporting and Electroluminescent Properties of Hydroxynaphthyridine-Derived Group III Metal Chelates
Shun-Wei Liu, Szu-Hung Liao, Shi-Jay Yeh, Chin-Ti Chen (Academia Sinica, Taiwan)
- **Wed-P7-17**
A New Method for Modeling of OLED Structures with Gratings
Chen-Shu Kao, Wen-Lan Yeh, Yih-Peng Chiou (Nat'l Taiwan Univ., Taiwan)
- **Wed-P7-18**
Simple sky blue p-i-n organic light-emitting diodes with a common ambipolar host material
Kuan-Heng Lin, Meng-Huan Ho, Ming-Ta Hsieh, Meng-Yu Liu, Shang-Yu Su, Chang-Yen Wu, Chin H. Chen (Nat'l Chiao Tung Univ., Taiwan)
- **Wed-P7-19**
Efficient fluorescent white OLEDs with a single host material
Meng-Yu Liu, Kuan-Heng Lin, Meng-Huan Ho, Sin-Min Gao, Yi-Hau Peng, Chin H. Chen (Nat'l Chiao Tung Univ., Taiwan)
- **Wed-P7-20**
Independently controllable stacked OLEDs with high efficiency by using semitransparent Al/oxide/Ag(Au) intermediate connecting layer
Wallace Choy, H.M. Zhang (Univ. of Hong Kong, Hong Kong), Y.F. Dai (Chinese Academy of Sciences, China)
- **Wed-P7-21**
Continuous modulation of electrode work function with mixed self-assembled monolayers and its effect in charge injection
Kun-Yang Wu, Szu-Yen Yu, Yu-Tai Tao (Academia Sinica, Taiwan)
- **Wed-P7-22**
Modulation of electrode work function with self-assembled layer: odd-even effect on charge injection in organic light-emitting diodes
Ko-Hui Huang (Nat'l Taiwan Normal Univ., Taiwan), Kun-Yang Wu, Yu-Tai Tao (Academia Sinica, Taiwan)
- **Wed-P7-23**
Improvement on Emission Color Stability of White Organic Light-Emitting Device Fabricated Utilizing DCJTBDoped TBADN
Xhin Bi Huang, Shin-Fong Huang, Su-Hua Yang (Nat'l Kaohsiung Univ. of Applied Sciences, Taiwan)
- **Wed-P7-24**
Influence of doping zone on the efficiency of blue phosphorescent organic light-emitting diodes
Do-Yeol Yoon, Dae-Gyu Moon (Soonchunhyang Univ., South Korea), Chan-Jae Lee, Jeong-No Lee (Korea Electronics Technology Institute, Korea)
- **Wed-P7-25**
Improvement of Brightness by Encapsulation Fixtures with reflective slope edge for OLED lighting
Sun-Pil Hwang, Dae-Gyu Moon (Soonchunhyang Univ., Korea), Chan-Jae Lee, Jeong-No Lee (Korea Electronics Technology Institute, Korea)
- **Wed-P7-26**
High Color Purity as emitting position in Blue Organic Light Emitting Diodes with DBVBi emitting layer
Chan-Jae Lee, Jeong-No Lee, Jeong-In Han (Korea Electronics Technology Institute, Korea), Duck-Kyun Choi (Hanyang Univ., Korea)
- **Wed-P7-27**
Determination of internal quantum efficiency of OLEDs with the consideration of the Purcell effect
Wallace Choy, Xue-Wen Chen, P.C. Chui (Univ. of Hong Kong, Hong Kong), Sailing He (Zhejiang Univ., China)