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Dong-Un Jin, Tae-Woong Kim, Hyun-Woo Koo, Denis Stryakhilev, Hyung-Sik Kim, Sang-Joon Seo, Moo-Jin Kim, Hoon-Kee Min, Ho-Kyoon Chung, Sang-Soo Kim (*Samsung Mobile Display Co., Ltd.*)

47.2: 2.8-inch WQVGA Flexible AMOLED Using High Performance Low Temperature Polysilicon TFT on Plastic Substrates (Page 706)

Sungguk An, Jaeseob Lee, Younggu Kim, Taewoong Kim, Dongun Jin, Hoonkee Min, Hokyoon Chung, Sang Soo Kim (*Samsung Mobile Display Co., Ltd.*)

47.3: A Rollable AM-OLED Display Driven By OTFTs (Page 710)

Makoto Noda, Norihito Kobayashi, Mao Katsuhara, Akira Yumoto, Shin-Ichi Ushikura, Ryo-Ichi Yasuda, Nobukazu Hirai, Gen Yukawa, Iwao Yagi, Kazumasa Nomoto, Tetsuo Urabe (*Sony Corporation*)

47.4: Thin, Flexible, Full-Color, Large-Area OLED Displays Using Tiles (Page 714)

John W. Hamer, Ronald S. Cok, Andy D. Arnold, Turkaram K. Hatwar, Jeffrey P Spindler (*Eastman Kodak Company*)

Session 48: VA-Mode LCDs I

48.1: Advanced Liquid-Crystal Materials for the Polymer-Sustained Vertically Aligned (PS-VA) Mode (Page 718)

Achim Goetz, Andreas Taugerbeck, Georg Bernatz, Kazuaki Tarumi (*Merck KGaA*)

48.2: Advanced VA Mode with Fast Gray Scale Response and Wide Viewing Angle in a Bend Liquid Crystal Configuration (Page 721)

Takehisa Sakurai, Mitsuhiro Murata, Toshihiro Matsumoto, Tadashi Ohtake, Shoichi Ishihara, Shuichi Kozaki, Katsuhiko Morishita, Tsuyoshi Okazaki, Takehiko Sakai, Yoshiharu Kataoka (*Sharp Corporation*)

48.3: Distinguished Paper: A Novel Hole Induced Vertical Alignment LC Mode with Superior Transmittance (Page 725)

Yong-Kyu Jang, Seongjun Lee, Jaeyoung Lee, Yi Li, Jaehoon Hwang, Sangwoo Kim, Changwoo Shim, Juyeon Seo, Namjin Kim, Yijoon Ahn, Namhee Kim, Seonhong Ahn, Seongryong Lee, Dahee Park, Chiwoo Kim (*Samsung Mobile Display Co., Ltd.*)

48.4: Advanced-Super-View Pixel Modeling (Page 728)

Richard James, Eero Willman, Nicholas Harley, Sally E. Day, F. Anibal Fernandez (*University College London*)

Session 49: Protective Layer

49.1: Invited Paper: High Luminous Efficacy and Low-Driving-Voltage Discharges in PDP with SrO-MgO Double Protecting Layer (Page 732)

Ki-Woong Whang, Tae-Ho Lee, Hee-Woon Cheong (*Seoul National University*)

49.2: Effects of Sealing Atmosphere on Protective Layers in AC PDP (Page 735)

Min-Suk Lee, Joong-Ho Moon, Yury Matulevich (*Samsung SDI Co. Ltd.*)

Won Chel Choi (*Sungkyunkwan University*)

Eun Gi Heo (*Samsung SDI Co. Ltd.*)

49.3: Discharge Characteristics of PDPs with the Ternary Oxides Protective Layers Manufactured by Using All-In-Vacuum Process (Page 739)

Takanobu Yano, Kazuya Uchida (*Tsukuba Institute for Super Materials, ULVAC, Inc.*)

Giichiro Uchida, Tsutae Shinoda, Hiroshi Kajiyama (*Hiroshima University*)

49.4: Photon and Electron Excitation Characteristics of MgO Submicron Crystals Made From Precursors (Page 742)

Qing Li, Harm Tolner (*Southeast University*)

Wen Pan, Ninghui Wang (*Dalian University of Technology*)

Qiyue Shao, Minxia Wu, Jie Liu (*Southeast University*)

Session 50: Measuring Contrast and Motion Artifacts

50.1: WITHDRAWN

50.2: Mura-Detection Automation in LCD Panels by Thresholding Fused Normalized Gradient and Second Derivative Responses (Page 746)

Hani Jamleh, Tsung-Yu Li (*National Taiwan University*)

Shen-Zhi Wang (*National Taiwan University of Science and Technology*)

Chien-Wen Chen, Chia-Chia Kuo, Ko-Shun Wang (*AU Optronics Technology Center*)

Charlie Chung-Ping Chen (*National Taiwan University*)

50.3: Proposal of Evaluation Method for Local-Dimming Backlights (Page 750)

Hideki Ichioka, Katsuya Otoi, Kohji Fujiwara, Katsuteru Hashimoto, Hirofumi Murakami, Tomohiko Yamamoto (*Sharp Corporation*)

50.4: Method to Measure Perceptual Resolution of Moving Picture Display (Page 754)

Jong-Ho Chong, Sang-Ho Kim, Dong-Wook Choi, Jae-Woo Bae, Seung-Bae Lee, Sang-Soo Kim (*Samsung Mobile Display Co., Ltd.*)

Session 51: 3-D TV and 3-D Video

51.1: Novel Simultaneous Emission Driving Scheme for Crosstalk-free 3D AMOLED TV (Page 758)

Baek-woon Lee, In-hwan Ji, Sang-myeon Han, Si-duk Sung, Kwang-sub Shin, Jang Doo Lee, Byung Hee Kim, Brian H. Berkeley, Sang Soo Kim (*Samsung Mobile Display Co., Ltd.*)

51.2: New 240Hz Driving Method for Full HD and High Quality 3-D LCD TV (Page 762)

Dae-Sik Kim, Sang-Moo Park, Jong-Hoon Jung, Dong-Choon Hwang (*Samsung Electronics Co., Ltd.*)

51.3: An Ultra-Low-Cost 2-D/3-D Video-Conversion System (Page 766)

Chao-Chung Cheng, Chung-Te Li, Liang-Gee Chen (*National Taiwan University*)

51.4: 3D Video Framework Design for FW Realization (Page 770)

Ruixing Yang (*Tampere University of Technology*)

Lachlan Pockett (*Nokia Research Center*)

Jari Nurmi (*Tampere University of Technology*)

Session 52: OLEDs for Lighting Applications

52.1: Invited Paper: Highly Efficient White Top-Emission Pin OLEDs for Display and Lighting (Page 774)

Jan Birstock, Tobias W. Canzler, Michael Hofmann, Qiang Huang, Tilmann Romainczyk (*Novald AG*)

52.2: Hybrid Tandem White OLEDs with High Efficiency and Long Life-time for AMOLED Displays and Solid-State Lighting (Page 778)

Tukaram K. Hatwar, Jeffrey P. Spindler, Marina Kondakova, David Giesen, Joseph Deaton, J. Ramon Vargas (*Eastman Kodak Company*)

52.3: OLEDs for Lighting Applications (Page 782)

Peter Loeb, Volker van Elsbergen, Herbert Boerner, Claudia Goldmann, Stefan Grabowski, Dietrich Bertram (*Philips Technologie GmbH*)

52.4: Highly Efficient Phosphorescent OLED Lighting Panels for Solid State Lighting (Page 786)

Peter A. Levermore, Vadim Adamovich, Kamala Rajan, Walt Yeager, Chun Lin, Sean Xia, Gregg S. Kottas, Michael S. Weaver, Raymond Kwong, Ruiqing Ma, Mike Hawk, Julie J. Brown (*Universal Display Corporation*)

Session 53: AMOLEDs I

53.1: Invited Paper: Active Matrix OLED Pixel Design (Page 790)

Roger G. Stewart (*Sourland Mountain Associates LLC*)

53.2: 30" AMOLED Based on Sequential Lateral Solidification Process (Page 794)

Jae Beom Choi, Won-Kyu Lee, Young Jin Chang, Jae Hwan Oh, Seong Hyun Jin, Cheol Ho Park, Byoung Kwon Choo, In-Do Chung, Kwon-Hyung Lee, Hyun Bin Hwang, Yong Soo Lee, Hye Dong Kim, Sang Soo Kim (*Samsung Mobile Display Co., Ltd.*)

53.3: Redundant Pixel Line Insertion for Laser Crystallization Based Large Sized LTPS AMOLED Displays (Page 798)

Sang-moo Choi, Chul-kyu Kang, Sung-won Chung, Moo-jin Kim, Mu-hyun Kim, Keum-nam Kim, Byung-hee Kim (*Samsung Mobile Display Co., Ltd.*)

53.4: Off-Current Control Method to Improve Random Mura of SGS AMOLED Panel (Page 802)

Deok-Young Choi, Yong-Sung Park, Bo-Yong Chung, Byung-Hee Kim, Sang Soo Kim (*Samsung Mobile Display Co., Ltd.*)

53.5: High-Speed AMOLED Pixel Circuit and Driving Scheme (Page 806)

Dong-Young Park, Chul-Kyu Kang, Yongsung Park, Boyong Chung, Kyung-Hoon Chung, Byung-Hee Kim, Sang Soo Kim (*Samsung Mobile Display Co., Ltd.*)

Session 54: Flexible-Display Manufacturing I

54.1: Invited Paper: A Novel Approach to Make Flexible Active-Matrix Displays (Page 810)

Cheng-Chung Lee, Yu-Yang Chang, Hua-Chi Cheng, Jia-Chong Ho, Janglin Chen (*Industrial Technology Research Institute*)

54.2: Direct Printed Electrodes of Transparent Conductive Polymers for Flexible Electronic Papers (Page 814)

Masayuki Nishii, Yoshinori Iwabuchi, Hidefumi Kotsubo, Ryo Sakurai, Yoshitomo Masuda (*Bridgestone Corporation*)

Reiji Hattori (*Kyushu University*)

54.3: WITHDRAWN

54.4L: Late-News Paper: Input-Output Integrated Flexible Display System (Page 818)

Hajime Yamaguchi, Tsuyoshi Hioki, Shuichi Uchikoga, Isao Amemiya (*Toshiba Corporation*)

Session 55: VA-Mode LCDs II

55.1: Development of Low Haze VA Compensation TAC Film and Proposal of Compensation Film Arrangement for Improving CR in VA Panel (Page 822)

Eiichiro Aminaka, Hidenori Hayashi, Hajime Nakayama, Makoto Ishiguro, Yukito Saito, Yoji Ito, Keiji Mihayashi, Madoka Kishima, Hideaki Tanaka (*Fujifilm Corporation*)

55.2: Reduction of Light Leakage by Optical Compensation Film in VA-LCDs (Page 826)

Makoto Ishiguro, Megumi Sekiguchi, Yukito Saitoh, Makoto Ishihara, Keiichi Miyazaki, Keiji Mihayashi (*Fujifilm Corporation*)

55.3: A Novel Push-Pull VA Technology for High-Performance LCD TV (Page 830)

Yanbing Qiao, Te-Chen Chung, Xia Huang, Liufei Zhou, Yu-Wen Chiu, Chia-Te Liao, Tean-Sen Jen, Dalei Zhang (*InfoVision Optoelectronics (Kunshan) Co., Ltd.*)

Session 56: Novel and Emerging Display Technologies

56.1: Sunlight Readability of Digital Micro Shutter Based Display Technology (Page 834)

Jignesh Gandhi, Je Hong Kim, Nesbitt Hagood, Lodewyk Steyn, John Fijol, Tim Brosnihan, Stephen Lewis, Gene Fike, Mark Halfman, Richard Payne (*Pixtronix Inc.*)

56.2: A New Reflective-Type Transparent Display Using Cholesteric Liquid Crystal (Page 838)

Jeongho Yeon, Joo-Hyung Lee, Jun-Bo Yoon (*Korea Advanced Institute of Science and Technology*)

Jinseol Park, Daeseung Kang (*Soongsil University*)

56.3: A Charge Trapping Suppression Method for Quick Response Electrowetting Displays (Page 842)

Yi-Cheng Chen, Yung-Hsiang Chiu, Wei-Yen Lee, Chao-Chiun Liang (*Industrial Technology Research Institute*)

56.4: Novel Approach to Camouflaging Seams in Tiled-Display Applications (Page 846)

Session 57: HMDs and HUDs

57.1: Near-to-Eye Display Using Scanning Fiber Display Engine (Page 848)

Brian T. Schowengerdt, Hunter G. Hoffman, Cameron M. Lee, C. David Melville, Eric J. Seibel (*University of Washington*)

57.2: Invited Paper: Modern Cockpit Displays and Concepts (Page 852)

Jean-Noël Perbet (*Thales Avionics*)

57.3: Invited Paper: Head-worn Displays – Lens Design (Page 855)

Jannick P. Rolland, Ilhan Kaya (*University of Rochester*)

Kevin P. Thompson, Ozan Cakmakci (*Optical Research Associates*)

Session 58: Novel 3-D Displays

58.1: 3D Interactive (3D Touch) Display with Embedded Optical Sensor (Page 859)

Pi-Cheng Wu, Guo-Zhen Wang, Yi-Pai Huang (*National Chiao Tung University*)

Ji-Mao Hung, Chun-Huai Li, Yao-Jen Hsieh, Chun-Ting Liu (*AU Optronics Corporation*)

58.2: Spatial-Temporal Hybrid Multi-View 3D Display (Page 863)

Ching-Wen Wei, Ching-Yi Hsu, Yi-Pai Huang (*National Chiao Tung University*)

58.3: Recent Progress in Interference-Filter-Based Stereoscopic LCD (Page 867)

Arnold Simon, Marc Georg Prager, Sergej Schwarz, Markus Fritz, Helmut Jorke (*INFITEC GmbH*)

58.4: Distinguished Paper: Control of Subjective Depth on 3-D Displays by a Quantified Monocular Depth Cue (Page 870)

Shuichi Takahashi, Takanori Ishikawa, Yasuhide Hyodo, Isao Ohashi, Yoshihide Shimpuku (*Sony Corporation*)

Kazuya Matsubara, Kazumichi Matsumiya, Satoshi Shioiri (*Tohoku University*)

58.5L: Late-News Paper: Full HD 3D Display Using Stripe-patterned Quarter-wave Retarder Array and Retardation-switching Glasses (Page 874)

Yoshiyuki Tamura, Masahiro Oyamada (*3D Technology Development Dept. Arisawa Mfg. Co., Ltd.*)

Atsushi Yoshida, Hideki Aiba (*Core Technology R&D Center Strategic Research & Development Division JVC Kenwood Holdings, Inc.*)

Kazushige Ohtawara (*Victor Company of Japan, Limited*)

Session 59: Solid-State Lighting

59.1: Invited Paper: On the Recent Progress of LED Lighting in Japan (Page 878)

Kiyoshi Nishimura, Keiichi Shimizu, Yusuke Shibahara, Kazunari Higuchi, Takeshi Hisayasu, Masahiro Toda (*Toshiba Lighting & Technology Corp.*)

59.2: Durable Solid State Flexible LED Devices (Page 882)

Kostas A. Sierros, Derrick A. Banerjee, Darran R. Cairns (*West Virginia University*)

Rick Bozich (*Grote Industries, Inc.*)

59.3: Phosphor Modeling for Phosphor-Converted LEDs (Page 886)

Chien-Hsiang Hung, Chung-Hao Tien (*National Chiao Tung University*)

59.4: LED Drivers: From Displays to General Lighting (Page 890)

Michael Keene, Michael Kretzmer, Graham Upton (*Endicott Research Group, Inc.*)

Session 60: AMOLEDs II

60.1: Invited Paper: AMLCD and AMOLEDs: How Do They Compare for Green Energy Efficiency? (Page 894)

Mike Hack, Michael S. Weaver, Julie J. Brown (*Universal Display Corporation*)

Lee-Hsun Chang, Chih-Kang Wu, Yu-Hsin Lin (*AU Optronics Corporation*)

60.2: Low-Power-Consumptive Luminance Compensation for a Digital-Driving AMOLED Display Using a Multiple Output Boost Converter (Page 898)

Se-Won Wang (*Korea Advanced Institute of Science and Technology*)

Hanh-Phuc Le (*University of California, Berkeley*)

Young-Jin Woo, Young-Sub Yuk, Jin Huh, Tae-Hwang Kong, Jong Pil Im, Byung-Sang Jung, Jun-Han Choi, Sung-Wan Hong, Gyu-Hyeong Cho (*Korea Advanced Institute of Science and Technology*)

Ho-Min Lim (*LG Display Co., Ltd.*)

Gyu-Ha Cho (*JDA Technology*)

Sung-il Kim (*LG Electronics Inc.*)

60.3: AMOLED Displays using Transfer-Printed Integrated Circuits (Page 902)

Ronald S. Cok, John W. Hamer, Christopher A. Bower, Etienne Menard, Salvatore Bonafede (*Semprius Inc.*)

60.4: Distinguished Paper: A Fully Integrated 1-In. AMOLED Display Using Current Feedback Based on a Five Mask LTPS CMOS Process (Page 905)

Patrick Schalberger, Marcus Herrmann, Steffen Hoehla, Norbert Fruehauf (*University of Stuttgart*)

Session 61: Flexible Backplanes I

61.1: Invited Paper: ZnO Thin Film Transistors and Circuits on Flexible Polymeric Substrates by Low-Temperature PEALD (Page 909)

Dalong A. Zhao, Devin A. Mourey, Ho Him R. Fok, Yuanyuan V. Li, Thomas N. Jackson (*Pennsylvania State University*)

61.2: Invited Paper: High-Performance Organic-Inorganic Hybrid Plastic Substrate for Flexible Display and Electronics (Page 913)

Jia-Ming Liu, Tzong Ming Lee, Chun-Hsiang Wen, Chyi-Ming Leu (*MCL, Industrial Technology Research Institute*)

61.3: Amorphous Silicon TFT Technology for Rollable OLED Displays (Page 917)

Sigurd Wagner, Lin Han, Bahman Hekmatshoar, Katherine Song, Prashant Mandlik, Kunigunde H. Cherenack, James C. Sturm (*Princeton University*)

61.4: High-Performance and Highly Rollable a-IGZO TFTs Adopting Composite Electrodes and Transparent Polyimide Substrates (Page 921)

Chih-Wei Chien, Hsing-Hung Hsieh, Cheng-Han Wu, Yu-Tang Tsai, Yen-Cheng Kung, Po-Ching Hsu, Chang-Yu Lin, Chung-Chih Wu (*National Taiwan University*)

Yung-Hui Yeh, Chyi-Ming Leu, Tzong-Ming Lee (*Industrial Technology Research Institute*)

Session 62: Nanostructure-Enhanced Liquid-Crystal Devices

62.1: Reduction of the Threshold Voltage and Enhancement of Contrast Ratio in Liquid Crystal Devices with BaTiO₃ Nanoparticle Embedded Surface Alignment Layers (Page 925)

Mitsuhiro Akimoto, Sudarshan Kundu, Shunsuke Kobayashi, Kohki Takatoh (*Tokyo University of Science, Yamaguchi*)
Masaru Inoue (*Toyo Corporation*)

62.2: Alignment of Liquid Crystal with Nanoporous Anodic Aluminum Oxide (np-AAO) Layer for LCD Application (Page 928)

Chitsung Hong (*National Tsing Hua University*)
Tsung-Ta Tang, Chi-Yuan Hung, Ru-Pin Pan (*National Chiao Tung University*)
Weileun Fang (*National Tsing Hua University*)

62.3: A Novel Nanostructure Enhanced Pi-Cell for Transition-Rate Improvement (Page 932)

Szu-Fen F. Chen (*National Chiao Tung University and Chung-Hwa Picture Tubes, Ltd.*)
Yu-Yun Chang, Huang-Ming Philip Chen, Han-Ping D. Shieh (*National Chiao Tung University*)

Session 63: Display Manufacturing: Reflective Technologies

63.1: Invited Paper: The Impact of Materials and System Design Choices on Reflective Display Quality for Mobile Device Applications (Page 935)

William Cummings (*Qualcomm MEMS Technologies, Inc.*)

63.2: Single Layer Multi-Color Electrowetting Display by Using Ink Jet Printing Technology and Fluid Motion Prediction with Simulation (Page 939)

Shu-Wei Kuo, Kuo-Lung Lo, Wei-Yuan Cheng, Hsin-Hung Lee, Yu-Hsiang Tsai, Pei-Pei Cheng, Yun-Sheng Ku, Hsin-Jung Chiang, Pei-Ju Su, Jyh-Wen Shiu (*Industrial Technology Research Institute*)
Yu-Sheng Huang, Chin-Yao Chen (*National Chiao Tung University*)

63.3: Back-Exposure Manufacturing Route for MEMS Reflective Display (Page 943)

Hyun-Chul Park, Jin-Ho Oh, Hak-Nyun Choi, Yong-Seog Kim (*Hongik University*)

63.4: A Monolithic Elastomer Substrate with Lens Array for Three-Dimensional Liquid Crystal Displays (Page 946)

Yeun-Tae Kim, Jong-Ho Hong, Jun-Hee Na, Yunhee Kim, ByoungHo Lee, Sin-Doo Lee (*Seoul National University*)

Session 64: Novel Near-to-Eye and Head-up Displays

64.1: Display Technologies for Therapeutic Applications of Virtual Reality (Page 949)

Hunter G. Hoffman, Brian T. Schowengerdt, Cameron M. Lee, Jeff Magula, Eric J. Seibel (*University of Washington, Seattle*)

64.2: Hyperrealistic Display for Automotive Application (Page 953)

Takashi Sasaki, Aira Hotta, Akihisa Moriya, Takahiro Murata, Haruhiko Okumura, Kazuo Horiuchi, Naotada Okada, Masatoshi Ogawa, Osamu Nagahara (*Toshiba Corporation*)

64.3: Vertical Expansion Problem in Light Guide Type Near to Eye Displays (Page 957)

Tapani Levola, Pekka Äyräs, Pasi Saarikko (*Nokia Research Center*)

64.4L: Late-News Paper: A New Quick-Adjust Head Mounted Display System (Page 961)

David A. Eccles, James E. Melzer, Wyatt L. (Lee) Hendrick (*Rockwell Collins*)

Session 65: Projection Lighting

65.1: Invited Paper: The Physics and Commercialization of Dual Paraboloid Reflectors for Projection Systems (Page 965)

Kenneth Li (*Wavien, Inc.*)

65.2: Advanced Laser Module with Intra Frame Operating Color Management for Mobile Projection (Page 969)

Jan O. Drumm, Christian Gammer, Jens Richter, Claus Seibert (*OSRAM GmbH*)

65.3: Distinguished Paper: High Efficiency Optical System for Ultra-Short Throw Distance Projector Based on Multi-Laser Light Source (Page 972)

Michihiro Okuda, Shinya Matsumoto, Makoto Maeda, Kazuhiro Arai, Kiyoko Tsuji, Takahisa Ando, Takaaki Abe, Masutaka Inoue, Ryuhei Amano, Takashi Ikeda, Hideyuki Kanayama (*Sanyo Electric Co., Ltd.*)

65.4: High Brightness LED Based Projector with NTSC 120% Wide Color Gamut (Page 976)

Yao-Chien Cheng, Feng-Chuan Tsai, Alex Wang, Huan-Ping Chiu (*Chilin Technology Co., Ltd.*)

65.5L: Late-News Paper: Casio Projectors with Hybrid LED/Laser/Phosphor Illumination (Page 979)

Frank Romeo (*Casio America, Inc.*)

Session 66: Lighting Materials and Applications

66.1: Application of UV-LED to the LCD Backlight (Page 982)

Yoshihiko Muramoto, Masahiro Kimura, Akihiko Dempo, Suguru Nouda, Yuuya Fukawa (*Nitride Semiconductors Co., Ltd.*)

66.2: Invited Paper: Remote Phosphor for Future LED Backlight Applications (Page 985)

Wen-Chi Chang (*KISmart Corporation*)
Hsin-Tao Huang (*KiSmart Corporation and National Chiao Tung University*)
Chuang-Chuang Tsai, Yi-Pai Huang, Han-Ping D. Shieh (*National Chiao Tung University*)

66.3: Emission Characteristics of ZnO-Incorporated CaTiO₃:Pr³⁺ Phosphor and Its Application for Solid-state Lightings (Page 989)

Seung-Youl Kang, Sung Mook Chung (*Electronics and Telecommunications Research Institute*)
Seong-Gu Kang (*Hoseo University*)
Seung-Jae Lee, Young Jin Kim (*Kyonggi University*)

66.4: Invited Paper: High-Quality White OLEDs and Resource Saving Fabrication Processes for Lighting Application (Page 993)

Takuya Komoda, Hiroya Tsuji, Norihiro Ito, Taisuke Nishimori, Nobuhiro Ide (*Panasonic Electric Works Co., Ltd.*)

Session 67: High Dynamic Range

67.1: A Monolithic Block-Wise Functional Light Guide for 2-D Dimming LCD Backlight (Page 997)

Kälil Käläntär, Masafumi Okada (*Nippon Leiz Corporation*)

67.2: Compensation Methods for Local-Dimming Backlights with RGB-LED (Page 1001)

Takayuki Murai (*Sharp Corporation*)
Kohji Fujiwara, Takeshi Masuda, Yuhsaku Ajichi, Tomohiko Yamamoto (*Sharp Corporation*)

67.3: Low Power Liquid Crystal Displays Using an Image Integrity-based Backlight Dimming Algorithm (Page 1005)

Suk-Ju Kang (*Pohang University of Science and Technology*)
Heewon Ahn, Heejung Hong, Euiyeol Oh, Injae Chung (*LG Display*)
Young Hwan Kim (*Pohang University of Science and Technology*)

67.4: Use of a Spatial Multiresolution Visual Model with Display Characterization and Ambient Information to Adaptively Shape the Tonescales of Mobile Displays (Page 1009)

Scott Daly (*Sharp Laboratories of America, Inc.*)
Rafal Mantiuk (*Bangor University*)
Louis Kerofsky (*Sharp Laboratories of America, Inc.*)

Session 68: Lighting Design

68.1: Angular Uniform White-Light-Emitting Diodes with an Internal Reflector Cup (Page 1013)

Ling Zhu, Xiang Hua Wang, Pui Tao Lai, Hoi Wai Choi (*The University of Hong Kong*)

68.2: The Zoom-Able Spot Lighting Fixture using WRGB LED (Page 1016)

Hsin-hsiang Lo, Chun-Chuan Lin, Ji-Feng Chen, Chen-Peng Hsu, Lung-Pin Chung, Tian-Yuan Chen (*Industrial Technology Research Institute*)

68.3: High-Power LED Lamp with Efficient Heat Exchange System (Page 1019)

Soondong Kang (*Yuhan University*)
Sungkyoo Lim (*Dankook University*)

68.4: Optimal Additive Mixing Approach Via Multi-Color LEDs Platform (Page 1022)

Ming-Chin Chien, Hsiao-Ju Chen, Yu-Lung Tung, Chung-Hao Tien (*National Chiao Tung University*)

68.5: A New Light Source: Energy-Efficient-Excitation Linear Plasma Lamp (Page 1025)

Tomasz Tarnowski, Klaus Wammes (*I-sft GmbH*)
Sungkyoo Lim (*Dankook University*)

Session 69: Oxide TFTs I

69.1: Photo-Leakage Current in ZnO TFTs for Transparent Electronics (Page 1029)

Yudai Kamada, Shizuo Fujita (*Kyoto University*)
Takahiro Hiramatsu, Tokiyoshi Matsuda, Mamoru Furuta, Takashi Hirao (*Kochi University of Technology*)

69.2: Highly Reliable Oxide-Semiconductor TFT for AM-OLED Display (Page 1033)

Toshiaki Arai, Narihiro Morosawa, Kazuhiko Tokunaga, Yasuhiro Terai, Eri Fukumoto, Takashige Fujimori, Tetsuo Nakayama, Takashi Yamaguchi, Tatsuya Sasaoka (*Sony Corporation*)

69.3: Amorphous Oxide TFT Backplane for Large Size AMOLED TVs (Page 1037)

Yeon Gon Mo, Minkyu Kim, Chul Kyu Kang, Jong Han Jeong, Yong Sung Park, Chaun Gi Choi Choi, Hye Dong Kim, Sang Soo Kim (*Samsung Mobile Display Co., Ltd.*)

69.4: Novel Flexible Reflective Color Media Integrated with Transparent Oxide TFT Backplane (Page 1041)

Jong-Souk Yeo, Tim Emery, Gregg A. Combs, Vincent C. Korhuis, Jeff T. Mabeck, Randy Hoffman, Tim R. Koch (*Hewlett Packard Company*)
Zhang-Lin Zhou, Dick Henze (*Hewlett-Packard Laboratories*)

Session 70: Flexible Display Manufacturing II

70.1: Laser Direct Imaging – Enabling Color in Electronic Paper Displays (Page 1045)

Eran Elizur (*KaleidoFlex Technologies Inc.*)

70.2: Distinguished Paper: Flexible Display Technology for Mass Production Using the Improved Etching Technology (Page 1047)

Seung Han Paek, Yong In Park, Choon Ho Park, Yu Sok Lim, Sang Il Shin, Chang Dong Kim, Yong Kee Hwang (*LG Display R&D Center*)

70.3: Ink Jet Printing for Selective Conductor Processes for Displays and Flexible Circuits (Page 1050)

Ram Ramakrishnan, Neerja Saran, Robert Petcavich (*Uni-Pixel Displays, Inc.*)

70.4: Single-Pass Printing of Picoliter Droplets for Flexible-Display Applications (Page 1054)

Jan Sumerel (*Fujifilm Dimatix, Inc.*)

Session 71: Projection Components

71.1: *Invited Paper: High-Resolution Microdisplays for Pico Projectors* (Page 1057)

Karl M. Gutttag (*Syndiant Inc.*)

71.2: *An Integrated Photo Sensor Array on Liquid-Crystal-On-Silicon (LCOS) Microdisplay for Automatic White Balance* (Page 1061)

Ho-Chi Huang, Hon-Yuan Leo, Chia-Cheng Lai (*Himax Display, Inc.*)

71.3: *Invited Paper: Speckle Suppression by Means of Ferroelectric LC Cell* (Page 1065)

Igor N. Kompanets, Alexander L. Andreev, Tatiana B. Andreeva, Maxim V. Minchenko (*Lebedev Physical Institute of RAS*)

Session 72: Display Manufacturing: Testing

72.1: *Strength of LCD Panel During Bending* (Page 1069)

Mao-Hsing Lin, Chia-Hung Hsieh, Kun-Feng Huang (*Chimei Innolux Corporation*)

72.2: *Strength Measurements of Thin AMLCD Panels* (Page 1073)

Jamie T. Westbrook, John F. Bayne, Tim A. Roe, Jum S. Kim, Po-Hua Su, Toshihiko Ono, Suresh T. Gulati (*Corning Incorporated*)

72.3: *Protrusive Interception for TFT-LCDs Using Side-View Illumination Method* (Page 1077)

Fu-Ming Tzu, Jung-Hua Chou (*National Cheng Kung University*)

Session 73: Emerging Display Applications

73.1: *Large-Area Plasma-Panel Radiation Detectors for Nuclear Medicine Imaging to Homeland Security and the Super Large Hadron Collider* (Page 1080)

Peter S. Friedman (*Integrated Sensors, LLC*)

Robert Ball, J. Wehrley Chapman, Daniel S. Levin, Curtis Weaverdyck, Bing Zhou (*University of Michigan*)

Yan Benhammou, Erez Etzion, M. Ben Moshe, Yiftah Silver (*Tel Aviv University*)

James R. Beene, Robert L. Varner Jr. (*Oak Ridge National Laboratory*)

73.2: *A Novel Design for Broadcasting LCD* (Page 1084)

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