

- P.42: Defect Trap on the Edge of the Slit in the Patterned VA Cell for Dynamic Stability of Disclination Lines**
Gi-Dong Lee, Dong-A University, Pusan, Korea
- P.43: Alignment-Layer Micropatterning Combined with Planar Degenerate Alignment**
Charles Rosenblatt, Case Western Reserve University, Cleveland, OH, USA
- P.44: Electrically Switchable, Polarization-Independent Diffraction Grating Based on Negative Dielectric Anisotropy Liquid Crystal**
Charles Rosenblatt, Case Western Reserve University, Cleveland, OH, USA
- P.45: Ion-Beam Processes for Liquid-Crystal Alignment on the Large-Area Substrates**
Oleg Yaroshchuk, Ukrainian Academy of Sciences, Kiev, Ukraine
- P.46: Holographic Polymer-Dispersed Ferroelectric Liquid Crystals for Diffractive Optical Elements**
Gregory Crawford, Brown University, Providence, RI, USA
- P.47: Monolithic Microspectrometers for Routine and Rapid-Display-Performance Characterization Utilizing Ferroelectric Liquid Crystals**
Gregory Crawford, Brown University, Providence, RI, USA
- P.48: Using Display Configuration in Spectrophotometric Bruise Aging Applications**
Gregory Crawford, Brown University, Providence, RI, USA
- P.49: Flexible Electrodes Compatible with Standard Photolithography**
Frederick Biga, Brown University, Engineering, Providence, RI, USA
- P.50: Dynamic Characteristics of Vertically Aligned LC Mode Using Polymer Walls**
Seung-Hee Lee, Chonbuk National University, Chonju, Chonbuk, Korea
- P.51: Spectroscopic Ellipsometry Characterization of Organic Light Emitting Diode Based on Phosphorescent PtOEP**
Eric Teboul, Horiba Jobin Yvon, Edison, NJ USA
- P.52: Simulation of Electron Beam Inside Electrostatic Field Using Legendre Polynomials**
Victor Mammana, Centro de Pesquisas Renato Archer (CenPRA), Campinas, SP Brazil
- P.53: Reflective & Transparent Electronic Ink for the Automotive Industry**
Zbigniew Bryning, Zikon Corp., Campbell, CA USA

Dinner / Evening Session: Display Pioneers at RCA II
Tuesday, September 19 / 5:30 – 8:00 pm

Dinner 5:30 – 7:00 pm
RCA Talks 7:00 – 8:00 pm
Speakers: *Bernard Lechner*
Joseph Castellano
John van Raalte

WEDNESDAY, SEPTEMBER 20, 2006

Session 4: Electronic Paper and Reflective Displays
Wednesday, September 20 / 8:00 – 9:40 am / Kiva Auditorium

- Chair: Adam Fontecchio, Drexel University**
- 4.1: Rollable Reflective Multicolor Cholesteric Displays**
Shin-Tson Wu, University of Central Florida, Orlando, FL, USA
- 4.2: Substrate-Free Cholesteric LCDs**
Irina Shiyankovskaya, Kent Displays, Inc., Kent, OH, USA
- 4.3: Single-Substrate Cholesteric Liquid-Crystal Encapsulation via Polymerization-Induced Phase Separation**
Tod Schneider, Kent Displays, Inc., Kent, OH, USA
- 4.4: Transflective LCD Using In-Plane-Switching Effect**
Ruibo Lu, University of Central Florida, Orlando, FL, USA
- 4.5: Electric-Field-Induced Undulations in Cholesteric Liquid Crystals**
Bohdan Senyuk, Liquid Crystal Institute, Kent State University, Kent, OH, USA

Session 5: Advances in OLED/PLED Devices
Wednesday, September 20 / 8:00 – 9:40 am / Governance Chambers

- Chair: Jerzy Kanicki, University of Michigan**
- 5.1: 2.2-in. QCIF+ AMOLED Display Employing V_{th} and IR Drop Compensation Method**
Sang-Hoon Jung, LG.Philips LCD R&D Center, Anyang, Korea
- 5.2: Top-Emission White OLEDs for Large-Area AMOLED Displays and Lighting Applications**
Jeffrey Spindler, Eastman Kodak Co., Rochester, NY, USA
- 5.3: Advanced Stabilized Calcium-Measurement Setup for Rapid Testing of OLED Encapsulations**
Steffen Hergert, University of Stuttgart, Stuttgart, Germany
- 5.4: Efficiency and Stability of Perylene-Based Dyes for Emissive Displays**
Steve Allen, University of Cincinnati, Cincinnati, OH, USA
- 5.5: Ink-Jet-Printable Phosphorescent Organic Light-Emitting Devices**
Mike Weaver, Universal Display Corp., Ewing, NJ, USA

Session 6: Wide-Viewing-Angle LCDs and Compensation Films
Wednesday, September 20 / 10:00 – 11:40 am / Kiva Auditorium

- Chair: Jack Kelly, Kent State University**
- 6.1: Invited Paper: Optical Compensation Films Based on TAC Films**
Hiroyuki Mori, Fuji Photo Film Co., Ltd., Kanagawa, Japan
- 6.2: Invited Paper: Reactive Mesogen Mixtures Suitable for the Preparation of Uniaxial and Biaxial Optical Films**
Owain Parri, Merck Chemicals Ltd., LLC, Southampton, Hants, UK
- 6.3: Design of Wide-Viewing-Angle Transflective IPS LCD**
Gak Seok Lee, Pusan National University, Busan, Korea
- 6.4: Tailored Holographic Micro-Diffusers for LCD-TV Applications**
Jun Qi, WaveFront Technology, Inc., Paramount, CA, USA

Session 7: Emissive Color Filters and Organic TFTs
Wednesday, September 20 / 10:00 – 11:30 am / Governance Chambers

- Chair: Norbert Fruehauf, University of Stuttgart**
- 7.1: Invited Paper: A Rollable Electronic-Paper Active-Matrix Display Module**
Pieter J. G. van Lieshout, Philips Polymer Vision, Eindhoven, The Netherlands
- 7.2: Two-Dimensional Color Array for Emissive Color-Filter Technology**
Scott Woltman, Brown University, Providence, RI, USA
- 7.3: Reliability Enhancement of AMOLED with a-Si:H TFT and Top-Anode OLED Employing a New Pixel Circuit**
Juhn Suk Yoo, LG.Philips LCD R&D Ctr., Anyang, Korea
- 7.4: New Patterning Application for Pentacene-Based OTFTs by Self-Assembly Monolayer (SAM) Material**
Hsiao Wen Zan, National Chiao Tung University, Hsinchu, Taiwan, ROC

Session 8: Backlights
Wednesday, September 20 / 1:10 – 2:20 pm / Kiva Auditorium

- Chair: Jun Qi, WaveFront Technology, Inc.**
- 8.1: Invited Paper: LED Backlight Design Factors for Large-Format LCDs**
Andrew Ouderirk, 3M, Maplewood, MN, USA
- 8.2: Picture Adaptive Display System Using TFT-LCD and LED Backlight for High-Quality Moving Images**
Goh Itoh, Toshiba R&D Center, Kawasaki, Japan
- 8.3: Uniform Illumination System with Desired Emitting Angle**
Yuan-Ting Teng, National Taiwan University of Science and Technology, Taipei, Taiwan, ROC

Session 9: Novel Active-Matrix Devices
Wednesday, September 20 / 1:10 – 3:20 pm / Governance Chambers

- Chair: Miltos Hatalis, Lehigh University**
- 9.1: Invited Paper: TFTs Based on Carbon Nanotubes and Semiconductor Nanowires**
Didier Pribat, Ecole Polytechnique, Palaiseau, France

- 9.2: Invited Paper: Liquid-Crystal Semiconductors and Their Application in Field-Effect Transistors**
Iain McCulloch, Merck Chemicals, Southampton, Hants, UK
- 9.3: AMOLED Backplanes of a-Si on Steel Foils**
Alex Kattamis, Princeton University, Princeton, NJ, USA
- 9.4: Ultra-Low-Temperature Poly-Si TFTs on Flexible PET Substrates for Display Applications**
Shams Mohajerzadeh, University of Tehran, Tehran, Iran
- 9.5: 230-dpi High-Resolution Amplified Display on Flexible Metal Foils and Column Drivers**
Matias Troccoli, Lehigh University, Bethlehem, PA, USA

Session 10: LCD Systems
Wednesday, September 20 / 2:40 – 4:30 pm / Kiva Auditorium

- Chair: Jim Anderson, 3M**
- 10.1: Invited Paper: Bimesogenic Liquid Crystals: New Materials for High-Performance Flexoelectric and Blue Phase Displays**
Harry J. Coles, University of Cambridge, Cambridge, UK
- 10.2: Reduction of Motion Blur and Perceived Flicker in Impulse Driving with 120-Hz Refresh Rate for LCDs**
Young-Chol Yang, Samsung Electronics, KyungGi-Do, Korea
- 10.3: One-Dimensional Modeling to Predict Causes and Trends of Reverse-Flow Effects in Vertically Aligned Nematic LCDs**
Sander Roosendaal, Philips Research Laboratories, Eindhoven, The Netherlands
- 10.4: Reflective 3D LCD with High Image Quality**
Shin-ichi Uehara, NEC Corp., Sagami-hara, Kanagawa, Japan
- 10.5: Curved TFT-LCD with a Curvature Radius of 10 mm**
Kentaro Miura, Toshiba Corp., Kawasaki, Japan

Session 11: LCD Materials with Nanoparticles and Nanostructure
Wednesday, September 20 / 3:20 – 4:40 pm / Governance Chambers

- Chair: Oleg Lavrentovich, Liquid Crystal Institute**
- 11.1: Invited Paper: Ferroelectric Particles in Liquid Crystals: Physics and Applications**
Yuriy Reznikov, Institute of Physics of the National Academy of Science of Ukraine, Kyiv, Ukraine
- 11.2: Invited Paper: Stressed Liquid Crystals for Fast Display Applications**
John West, Kent State University, Kent, OH, USA
- 11.3: Modification of the Physical Properties of LCs by Doping Nanoparticles Resulting in LCD Performance Enhancement**
Satoru Sano, Ube Material Industries, Yamaguchi, Japan
- 11.4: Moved to 15.4**

Dinner / Evening Session: LCI Open House / Author Demos
Wednesday, September 20 / 4:45 – 8:30 pm
LCI Open House: 4:45 – 6:45 pm
Dinner and Chairman's Award Presentation: 7:00 – 8:30 pm

THURSDAY, SEPTEMBER 21, 2006

Session 12: AMLCDs
Thursday, September 21 / 8:00 – 9:50 am / Kiva Auditorium

- Chair: Hiroyuki Mori, Fuji Photo Film Co., Ltd.**
- 12.1: Invited Paper: The Developments of Super-PVA Technology for Wide-Viewing-Angle Performance**
S. S. Kim, Samsung Electronics Co., Ltd., Ahsan, Korea
- 12.2: Invited Paper: The Trend of IPS Technology**
H. C. Choi, LG.Philips LCD, Kumi, Korea
- 12.3: Optical Design of High-Performance OCB Mode for High-Quality Field-Sequential Color LCDs**
Takahiro Ishinabe, Tohoku University, Miyagi Japan
- 12.4: Transmittance Enhancement of Fringe-Field Switching-Mode TFT-LCDs with Novel Pixel Structures**
Peter Liao, HannStar Display Corp., Taoyuan, Taiwan, ROC
- 12.5: Polarization-Independent Modulation for Projection Displays Using Small-Period LC Polarization Gratings**
Michael Escuti, North Carolina State University, Raleigh, NC, USA

Session 13: Fast-Switching Liquid Crystals
Thursday, September 21 / 8:00 – 9:30 am / Governance Chambers

- Chair: John West, Kent State University**
- 13.1: Invited Paper: Chiral Sma* Materials for Display Applications**
David Walba, University of Colorado, Boulder, CO, USA
- 13.2: Effect of Dielectric Relaxation on Nematic Liquid-Crystal Switching**
Oleg Lavrentovich, Chemical Physics Interdisciplinary Program and Liquid Crystal Institute, Kent, OH, USA
- 13.3: Electro-Optical Applications of Dual-Frequency Nematics: From Tunable Lenses to Microfluidic Devices**
Oleg Pishnyak, Liquid Crystal Institute, Kent, OH, USA
- 13.4: Experimental Observations of Dielectric Memory Effect in Nematic Liquid Crystals**
Mingxia Gu, Liquid Crystal Institute, Kent, OH, USA

Session 14: Liquid-Crystal Alignment
Thursday, September 21 / 10:10 – 12:00 pm / Kiva Auditorium

- Chair: Yuriy Reznikov, National Academy of Sciences of Ukraine**
- 14.1: Invited Paper: Experimental Observations of the Polarization Current Response of a Chiral Smectic-A Phase During Electroclinic Reorientation**
Noel Clark, Ferroelectric Liquid Crystal Material Research Center, Boulder, CO, USA
- 14.2: Nanotomography of Liquid Crystals Using Polarized Near-Field Scanning Optical Microscopy**
Charles Rosenblatt, Case Western Reserve University, Cleveland, OH, USA
- 14.3: A Shift of Hysteresis-Loop Center in FLC Cell Due to Changing the Polarity of the Surface Nanostructure "ITO-Aligning Layer"**
Igor Kompanets, Lebedev Physical Institute of RAS, Moscow, Russia
- 14.4: Magnetic Field and Surface-Memory-Effect Controlled Surface Anchoring Condition on Isotropic Surfaces**
Samo Kralj, Institute Jozef Stefan, Ljubljana, Slovenia
- 14.5: Dynamic Characteristics of Vertically Aligned LC Mode Using Polymer Walls**
Seung-Hee Lee, Chonbuk National University, Chonju, Chonbuk, Korea

Session 15: Emissive Displays
Thursday, September 21 / 9:50 am – 12:00 pm / Governance Chambers

- Chair: Shigeo Mikoshiba, University of Electro-Communications**
- 15.1: Invited Paper: Development of 0.3-mm Pixel-Pitch High-Resolution ACPDP for Super-Hi-Vision Broadcasting System**
Kenji Ishii, NHK Science & Technical Research Laboratories, Tokyo, Japan
- 15.2: Ultra-Brite High-Frequency Flexible Plasma Displays**
Carol Ann Wedding, IST (Imaging Systems Technology), Toledo, OH, USA
- 15.3: Application of Embedded Carbon Nanotubes for FEDs**
Shams Mohajerzadeh, University of Tehran, Tehran, Iran
- 15.4: Novel Switchable Helical Structures**
Suraj Gorkhali, Brown University, Providence, RI, USA