

WIDE VIEWING ANGLE I

Wednesday, May 23 / 3:30 – 4:50 pm / Room 104BC

Chair:

Kei-Hsiung Yang, HannStar Display Corp., Taoyuan, Taiwan, ROC

Co-Chair:

Martin Schadt, MS Hightech Consulting, Seltisberg, Switzerland

29.1: Invited Paper: Extraordinarily Wide-Viewing-Angle and High-Transmittance MVA-LCDs (3:30)

C-H. Lin, R-L. Chen, K-Y. Hunag
TPO Displays Corp., Miao-Li County, Taiwan, ROC

A new MVA-LCD was developed to achieve high transmittance, high contrast ratio, and wide viewing angle by using a conventional polarizer rather than a circular polarizer. Potential applications for mobile display are emphasized.

29.2: A Novel Pixel Structure to Eliminate Thick Organic Overcoat on the Array Substrate of AS-IPS Mode for TFT-LCDs (3:50)

J-S. Lin, P-S. Shih, T-S. Liao, M-C. Change, R-H. Lin,
K-H. Yang
HannStar Display Corp., Taoyuan, Taiwan, ROC

A novel low-cost and high-contrast-ratio IPS LC mode, Advanced Super Non-Organic Overcoat (AS-NOOC), has been successfully developed to eliminate a PEP step used in AS-IPS to form a thick organic overcoat on the TFT substrate.

29.3: A New Fringe-Field-Switching LCD Using Trapezoid Electrodes (4:10)

R. Lu, S-T. Wu
University of Central Florida, Orlando, FL, U.S.A.

A new trapezoid fringe-field-switching (T-FFS) LCD is proposed to obtain high transmittance, wide viewing angle, and low operational voltage. Simulation results show a 100:1 contrast-ratio zone exceeding a $\pm 85^\circ$ viewing cone.

29.4: Analyses of the White-State Viewing-Angle Properties of LCDs (4:30)

Y-K. Jang, P. J. Bos
Kent State University, Kent, OH, U.S.A.

The white-state viewing-angle properties of the most common LCDs were investigated and it was found, regardless of the LCD mode, that there is a universality that can be analyzed by using the effective birefringence and transmittance.

BREAK (4:50–5:10)

AUTHOR INTERVIEWS (6:30–7:30)