

SID Symposium Digest of Technical Papers
Volume 35, Issue 1, Pages 1298-1301
Society for Information Display
May 2004

45.3: Pentacene Organic Thin-Film Transistor Integrated with Color Twisted Nematic Liquid Crystals Display (CTNLCD)

Ho, Jia-Chong; Huang, Liang-Ying; Hu, Tarng-Shiang; Hsieh, Cheng-Chung; Hwang, Wen-Kuei; Wang, Yu-Wu; Lin, Wei-Ling; Cheng, Hsiang-Yuan; Lin, Tsung-Hsien; Hsiao, Ming-Chun; Wang, Yi-Kai; Wu, Po-Sheng; Lee, Cheng-Chung

Abstract

Pentacene Organic Thin-Film Transistor (OTFT) integrated with Color Twisted Nematic Liquid Crystals Display (CTNLCD) has been developed. This display used photolithography, pentacene deposition, color filter and TNLC. In addition, we successfully develop the OTFT passivation layer process to avoid the damage of TNLC. Above these processes are integrated to manufacture the 3 inch CTNLCD panels with 64×128 pixels.