Transflective Liquid Crystal Displays
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DESCRIPTION

Sunlight readable transflective liquid crystal displays, used on devices from cell phones and portable media players, to GPS and even some desktop monitors, have become indispensable in our day-to-day lives.

*Transflective Liquid Crystal Displays* is a methodical examination of this display technology, providing a useful reference to the fundamentals of the topic. Including thorough descriptions of the essential physics of transflective LCD technologies, the book also compares transflective LCD technology with alternatives, such as OLED displays, to enable display engineers to appropriately select the correct device for their particular application.

- Includes detailed descriptions of both pure transmissive and reflective LCDs, and the design considerations and performance of combining these into small mobile displays.
- Focuses on fundamental elements, such as double cell gap transflective LCDs, wide-viewing angle technology, light polarization and wide-view linear and circular polarizers, video rate display by colour sequential technologies, colour sciences and engineering, and backlights.
- Describes the latest LCD technologies, such as polymer-sustained surface alignment technology, and the possible trends which could be applied to transflective LCDs in the future.

Its focus on the fundamentals of transflective liquid crystal displays makes this an ideal graduate text, while display engineers, scientists, developers and technicians working with this technology will also welcome this resource.
The Society for Information Display (SID) is an international society, which has the aim of encouraging the development of all aspects of the field of information display. Complementary to the aims of the society, the Wiley-SID series is intended to explain the latest developments in information display technology at a professional level. The broad scope of the series addresses all facets of information displays from technical aspects through systems and prototypes to standards and ergonomics.

ABOUT THE AUTHOR

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Dr Ge joined the College of Optics and Photonics at the University of Central Florida in 2008 as a research scientist. His research interests include liquid crystal displays and laser beam steering technologies. Dr. Ge is a member of the IEEE and SID. He is a recipient of the 2006 IEEE LEOS Graduate Student Fellowship Award, 2007 Otto Lehmann Award and 2007 UCF Outstanding Dissertation Award. Dr Ge serves as an associate editor for Journal of Society for Information Display (JSID) on the LCD division. He has published 1 book chapter, over 20 journal papers and has 12 issued or pending patents.

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Currently PREP Professor of Optics at the University of Central Florida. Professor Wu is a Fellow of the IEEE, OSA, SID and SPIE. He is a recipient of the SPIE G. G. Stokes Award, SID Jan Rajchman Prize, UCF Distinguished Researcher Award, IEEE Outstanding Engineer Award, SID Special Recognition Award, ERSO (Taiwan) Special Achievement Award and Hughes team achievement award. From 2004-2008, Professor Wu served as the founding Editor-In-Chief of the IEEE/OSA Journal of Display Technology. He has co-authored 5 books (4 with Wiley, 1 with world scientific press), 6 book chapters, over 300 journal papers and has more than 75 issued and pending patents. Several of his patents have been implemented in display and photonic devices.

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