DESCRIPTION

An extensive introduction to the engineering and manufacture of current and next-generation flat panel displays

This book provides a broad overview of the manufacturing of flat panel displays, with a particular emphasis on the display systems at the forefront of the current mobile device revolution. It is structured to cover a broad spectrum of topics within the unifying theme of display systems manufacturing. An important theme of this book is treating displays as systems, which expands the scope beyond the technologies and manufacturing of traditional display panels (LCD and OLED) to also include key components for mobile device applications, such as flexible OLED, thin LCD backlights, as well as the manufacturing of display module assemblies.

Flat Panel Display Manufacturing fills an important gap in the current book literature describing the state of the art in display manufacturing for today’s displays, and looks to create a reference the development of next generation displays. The editorial team brings a broad and deep perspective on flat panel display manufacturing, with a global view spanning decades of experience at leading institutions in Japan, Korea, Taiwan, and the USA, and including direct pioneering contributions to the development of displays. The book includes a total of 24 chapters contributed by experts at leading manufacturing institutions from the global FPD industry in Korea, Japan, Taiwan, Germany, Israel, and USA.

• Provides an overview of the evolution of display technologies and manufacturing

• Treats display products as systems with manifold applications, expanding the scope beyond traditional display panel manufacturing to key components for mobile devices and TV applications

• Provides a detailed overview of LCD manufacturing, including panel architectures, process flows, and module manufacturing
• Provides a detailed overview of OLED manufacturing for both mobile and TV applications, including a chapter dedicated to the young field of flexible OLED manufacturing

• Provides a detailed overview of the key unit processes and corresponding manufacturing equipment, including manufacturing test & repair of TFT array panels as well as display module inspection & repair

• Introduces key topics in display manufacturing science and engineering, including productivity & quality, factory architectures, and green manufacturing

*Flat Panel Display Manufacturing* will appeal to professionals and engineers in R&D departments for display-related technology development, as well as to graduates and Ph.D. students specializing in LCD/OLED/other flat panel displays.

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