Dr. Michael D. McCreary
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Short Course Title

Reflective Electrophoretic Displays: A dramatically different technology and application space from LCDs and OLEDs

Abstract

While backlit LCDs and emissive OLEDs dominate TV and smart phone display markets, the image quality in direct sunlight is greatly diminished and high power consumption requires daily or even more frequent charging of batteries. But the world around us consists primarily of curved and non-rectangular surfaces that are seen with reflective light. Current and future flexible, reflective and transmissive electrophoretic display technologies are expanding the possibilities for IoT, consumer, architecture, and signage product applications. These new technologies and applications will be described including new color, magnetic, and variable transmission window display platforms.

Speaker Biography

Michael McCreary is a veteran of the imaging industry with a 46 year career ranging from chemical photographic image capture, to digital CCD image capture, to digital display imaging. Dr. McCreary has been at E Ink since 2000 where he is responsible for expanding the portfolio of novel electronic paper and other related technologies. During this period of time, E Ink has grown from a modest MIT Media Laboratory spin-out startup company to a mature $500M per year corporation. He also currently serves as the Chairman of the SEMI FlexTech Governing Council.

Prior to joining E Ink in 2000, McCreary held a number of leadership positions with the Eastman Kodak Company including the development of the Kodak instant photography developer chemistry and later as General Manager of the Microelectronics Technology Division, which developed world record high performance solid-state image sensors in the 1980s and 1990s.

McCreary earned his B.S. degree in Chemistry from Principia College, a Ph.D. in Physical Organic Chemistry from the Massachusetts Institute of Technology, and completed further studies in solid state and device physics at the Rochester Institute of Technology as well as business training at the University of Pennsylvania Wharton School. Dr. McCreary is co-inventor on 92 patents worldwide.