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O-LED OR P-OLED?

Askari Mohammad Bagher:
Department of Physics,
Payame Noor University,
Tehran, Iran, PO Box 19395-3697

Abstract

OLEDs are solid-state devices composed of thin films of organic molecules that create light with the application of electricity. OLEDs can provide brighter, crisper displays on electronic devices and use less power than conventional light-emitting diodes (LEDs) or liquid crystal displays (LCDs) used today. OLEDs are made by placing thin films of organic (carbon based) materials between two conductors. When electrical current is applied, a bright light is emitted. The OLED materials emit light and do not require a backlight (unlike LCDs). Each pixel is a small light-emitting diode, in fact. OLEDs emit light they do not require a backlight and so are thinner and more efficient than LCD displays (which do require a white backlight). [1] The main change about POLED is the material and the switch from the traditional glass OLED. The plastic material developed is capable of withstanding high temperatures while maintaining chemical stability when being used as a display. Through the use of plastic, the display can achieve some level of flexibility and curving. The manufacturing process also results in the elimination of bubbles and foreign substances with the POLED's layers. POLED has some other benefits as well. Displays can be produced that have very thin bezels, they are much thinner than current OLED or LCD displays, and they are more stable over time due to the encapsulation of OLED elements in the plastic. Being made of plastic instead of glass, POLEDs are much less susceptible to breakage..In this article, we will study of the production process, the advantages and disadvantages of LED and LCD. The readers will judge the LED or LCD? Which one is better?

Keywords: O-LED, P-OLED, Organic Polymer