

Anti-Reflective coating for External Efficiency of Organic Light Emitting Diode

Byoung-Yong Kim, Jin-Woo Han, Jong-Yeon Kim, Jeong-Min Han, Hyun-Chan Moon*, Kwang-Bum Park* and Dae-Shik Seo
Yonsei University, KETI(Korea Electronic Technology Institute)*

Abstract : OLED has many advantages of low voltage operation, self radiation, light weight, thin thickness, wide view angle and fast response time to overcome existing liquid crystal display (LCD)'s weakness. Therefore, It draws attention as promising display and has already developed for manufactured goods1). Also, OLED is regarded as a only substitute of flexible display with a thin display.

A considerable portion of the light originating film emissive centers buried in a solid film never escapes due to internal reflection at the air-film interface and is scattered as edge emission or dissipated within the solid film This is one of the major reasons why the luminous power efficiency of OLED remains low, in spite of research progress in OLED. Although several ways of overcoming this difficulty have been reported, no comprehensive method has been proposed yet. In this paper, we propose that use of anti-reflective coating layers.

Key Words : OLED, anti-reflective layers