

## Fabrication of OLED lighting using light scattering solution for flexible OLED light extraction

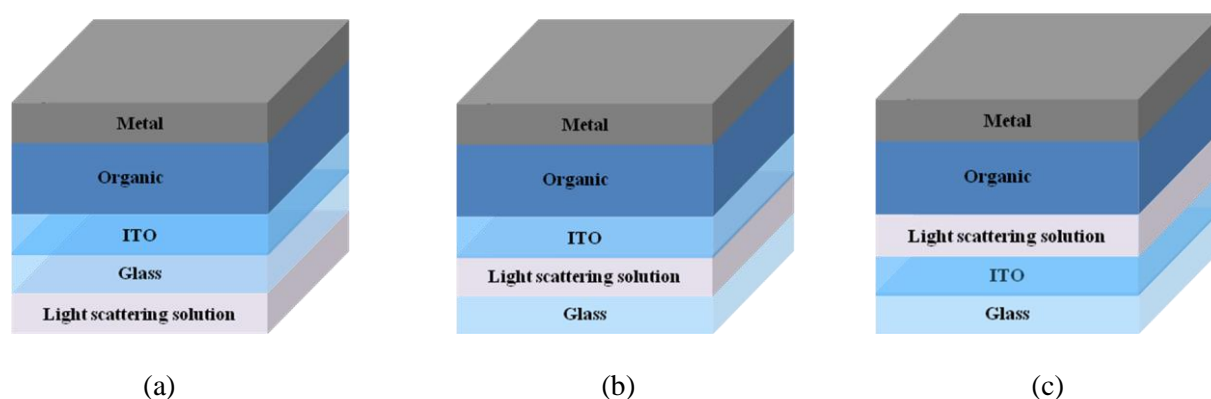
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OLED (organic light emitting diode) lighting are being considered good candidates for a new generation of environmental friendly lighting application due to properties such as low-power consumption, excellent image quality, fast response time and high brightness. Light efficiency is an important element of the OLED device performance. The OLED has been steadily performed to improve the efficiency of such materials development and light extraction techniques. The light extraction has been actively studied by a method such as photonic crystal, a micro lens array. Photonic crystal manufacturing method is simple, but has been raised as a problem such as color change according to the angle by the periodic array of crystal. A micro lens array has a problem that can appear according to the viewing angle of the interference color and color change.

In this work, we fabricated OLED lighting using light scattering solution with polymer bead for apply to flexible OLED lighting. Light scattering solution shows high performance haze ( $\geq 85$ ) and transmittance ( $\geq 80$ ). We suggested 3 kind of structure of OLED lighting for light extraction as shown Figure 1 and fabricated OLED lighting with high light efficiency.



**Fig. 1.** Schematic diagram of OLED lighting with light scattering solution

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