

Silicon based UV curable sealant and characterization of OLED lighting according to moisture scavenger contents of sealant

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Organic light emitting diodes (OLEDs) have many advantages like high performance and human-friendly light source. Currently, light source market size is growing up and especially LED/OLED are soon to take over its market. The light sources take up an average of 20 % of the lighting market. As of 2018, light sources will comprise approximately 80 % with the expansion of OLEDs. Nevertheless, it was still a key issue that OLED lighting is high cost than LED lighting. To surmount these problems, development of fusion and complex materials using OLED lighting come to the fore.

In this study, our research has tended to focus on possibility of UV curable sealant with moisture capability. Therefore, we fabricated OLED lighting using silicon based UV curable sealant and analyzed characteristics of OLED lighting as a function of moisture scavenger contents of sealant, as observed in Fig. 1.

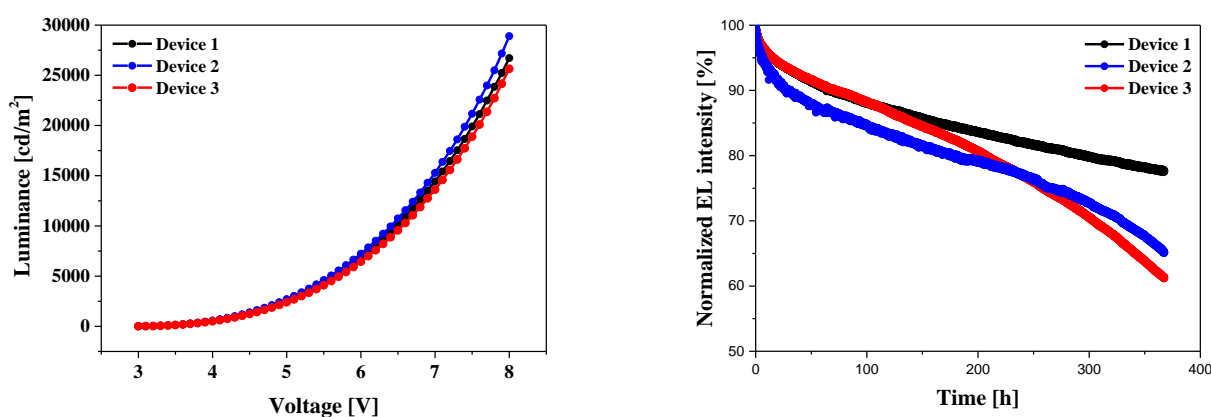


Fig. 1. Voltage vs luminance characteristics (V-L) and life time graph of the OLED devices

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