

Gravure Printing of Organic Layer Patterning for OLED

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Printing technology is introduced as an alternative of conventional patterning techniques of organic layer in organic light emitting device (OLED) such as sublimation. Thermal sublimation has faced limitation of economical point according to display size getting bigger. Gravure printing technique can potentially replace the thermal sublimation to overcome the limitation. Poly[2-methoxy-5-(2-ethylhexyloxy)-1,4-phenylenevinylene] (MEH-PPV, Aldrich®) are printed as emitting layer of OLED on ITO glass by gravure printing. The MEH-PPV ink is transferred from Cr stamp to ITO substrate in room temperature and atmospheric pressure. The surface property of patterned organic layer is analyzed in digital microscope, a-step and AFM. Photo electrical property is presented in IVL graph of luminance meter and spectrometer.