

**단결정 실리콘 박막을 이용한 OLED 제작 및 특성 평가**  
**OLED fabricated on a thin single crystalline silicon film**

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We have studied organic light-emitting diode fabricated on a thin single crystalline silicon film. In order to obtain a thin single crystalline silicon film, we utilized selective KOH etching and SOI wafer. We successfully fabricated a bottom-emission organic light-emitting diode on a thin single crystalline silicon film with 5 $\mu$ m thickness. In which the highest luminance was  $\sim 3500\text{cd/m}^2$  at 14V for green color. We expect that our study can provide a feasibility of flexible and transparent OLED display devices based on a thin single crystalline silicon film and improvement of device performance in the resolution and opening ratio compared with conventional devices.