

DEGRADATION OF SINGLE LAYER MEH-PPV ORGANIC LIGHT EMITTING DIODE (OLED)

Abstract:

The degradation process of a single layer electroluminescence (EL) polymer MEH-PPV organic light emitting diode (OLED) with the MEH-PPV thickness of 57plusmn3 nm is discussed. Typical structure of OLED fabrication is Al/MEH-PPV/ITO (indium tin oxide). Electroluminescence (EL) spectrum indicates that the emission of MEH-PPV device is the yellow orange color. The device degrades by days as demonstrated by the increased in the turn on voltage obtained from I/V curves. The scanning electron microscope (SEM) images show some bubbles emerge on the surface of the device after an electric field was applied to it.