Synthesis and Electroluminescent Properties of New Blue Oled with Fluoranthene Derivatives

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we synthesized a new deep-blue and sky-blue emitting material using fluoranthene moieties such as 7,8,10-triphenylfluoranthene and 7,12-diphenylbenzo[k]fluoranthene. PL maximum values of TPF and DPBF are 456nm and 453nm. TPF showed much better operating voltage, luminance and power efficiency of 3.27 cd/A and 1.63 lm/W although it had worse CIE value than DPVBi. DPBF also exhibited better operating voltage and CIE value (0.161, 0.131) although it had worse luminance and power efficiency than DPVBi.