

Efficient Deep-Blue Electroluminescence from 6,12-dihydro-diindeno[1,2-b;1',2'-e]pyrazine Derivatives

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In recent, the range of applications of functional organic materials has rapidly expanded, with especially innovative uses discovered in the field of optoelectronics. Researchers have begun to report how the properties of functional organic materials can be modified by varying their core and side groups.

Deep blue emitting materials with a new core structure containing indenopyrazine have been synthesized; a non-doped device using one of these materials as a blue emitter was found to exhibit high external quantum efficiency of 4.6% and excellent color purity of (0.154, 0.078) as well as narrow emission band of 47 nm FWHM.