Lumtec Luminescence Technology Corp.

A Universal Host Material for High External Quantum Efficiency Close to 25% and Long Lifetime in Green Fluorescent and Phosphorescent OLEDs

Product Specifications

LT-N4098 DCzDCN

800-07-7
ned, > 99% (HPLC)
N ₄
1 g/mole
$37 \text{ nm} (\text{in } \text{CH}_2\text{Cl}_2)$
m (in CH ₂ Cl ₂)
3



Reference : Adv. Mater. 2014, 26, 4050-4055

Features

- A universal host material for both TADF and phosphorescent OLEDs, DCzDCN, as a bipolar host material, have been synthesized.
- The DCzDCN host showed singlet energy of 2.98 eV and triplet energy of 2.71 eV for efficient energy transfer to Ir(ppy)₃ and 4CzIPN, also bipolar charge transport properties and proper HOMO/LUMO levels of -6.14 eV/-3.26 eV for charge confinement.
- High quantum efficiency close to 25% and long lifetime both in green TADF and phosphorescent OLEDs were achieved.

Device Application

The Best TADF OLED Device :

ITO/PEDOT:PSS(60 nm)/TAPC(20 nm)/MCP(40 nm)/DCzDCN : 3% 4CzIPN(25 nm)/TSPO1(35 nm)/LiF(1 nm)/Al(200 nm) The Best Phosphorescent OLED Device :

ITO/PEDOT:PSS(60 nm)/TAPC(20 nm)/MCP(40 nm)/DCzDCN:5% Ir(ppy)3(25 nm)/TSPO1(35 nm)/LiF(1 nm)/AI(200 nm) Related products from Lumtec :











LT-N137 TAPC

LT-E107 MCP

LT-N4048 TSPO1

LT-E504 Ir(ppy)₃

LT-N4060 DPEPO

Our products are used for testing and research purpose; they are not guaranteed in patent contention by customer use.

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