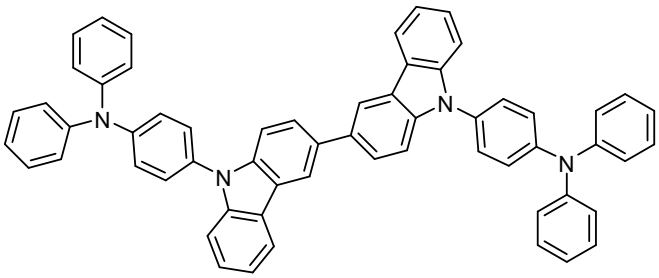
Lumtec Luminescence Technology Corp.

Extremely Low Operating Voltage Green Phosphorescent Organic Light-Emitting Devices

Product Specifications

LT-N4102 BCzTPA

CAS No.	1032174-52-9
Grade	Sublimed, > 99% (HPLC)
Formula	$C_{60}H_{42}N_4$
Molecular Weight	819.00 g/mole
Absorption	310, 341 nm(film)
Photoluminenscence	397 nm(film)
HOMO/LUMO	5.15 eV/1.11 eV
Tg	157 °C



Reference : 1. Adv. Funct. Mater. 2013, 23, 5550–5555
2. Adv. Mater. 2012, 24, 3212–3217

Features

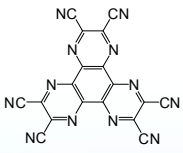
- Green OLEDs operating below a theoretical limit of the energy gap(Eg) voltage with high external quantum efficiency over 20% are demonstrated using $Ir(ppy)_3$ with a peak emission wavelength of 523 nm, which is equivalent to a photon energy of 2.38 eV.
- An optimized OLED operates clearly below the theoretical limit of Eg voltage at 2.38V. showing 100 cd m^{-2} at 2.25V and 5000 cd m^{-2} at 2.95V.

Device Application

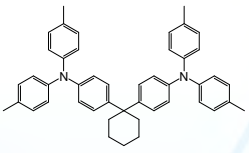
The Best Device :

ITO(130 nm)/HAT-CN(1 nm)/TAPC(50 nm)/17wt% $Ir(ppy)_3$: BCzTPA(10 nm)/B4PyPPM(50 nm)/Libpp(1 nm)/Al(80 nm)

Related products from Lumtec :

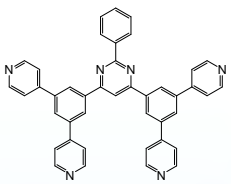


LT-N221 HAT-CN

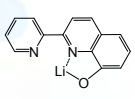


LT- N137 TAPC

LT-E504 $Ir(ppy)_3$



LT-N888 B4PyPPM



LT-N887 Libpp

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