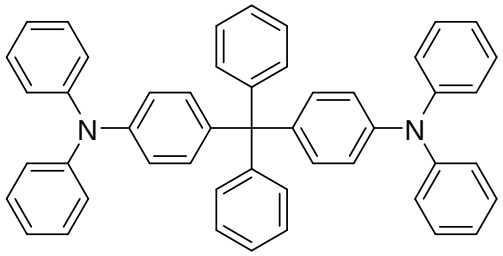
Luminescence Technology Corp.

High Triplet Energy Hole Transport Material for Blue Organic Light Emitting Diodes

Product Specifications

LT-N162 TCBPA

Formula	$C_{49}H_{38}N_2$
Molecular Weight	654.84 g/mole
Tg	92°C
Tm	302 °C
5% wt loss Temp	388 °C
HOMO (eV)	-5.68 eV
L UMO (eV)	-2.04 eV
E_T	2.86 eV



Reference : Organic Electronics 14 (2013) 370–377

Information

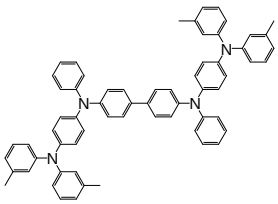
A high triplet energy hole-transport material based on the aromatic amine moiety and the diphenylmethyl linkage were developed as hole-transport materials for blue PHOLEDs.

The quantum efficiency of blue PHOLEDs was high in the TCBPA device with a maximum quantum efficiency of 21.8%, and a quantum efficiency at 1000 cd/m^2 of 20.2%. To compare TCBPA with TAPC, TAPC showed a maximum quantum efficiency of 18.5% and a quantum efficiency at 1000 cd/m^2 of 16.4%

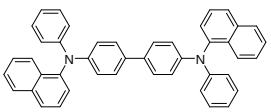
Device Application

ITO/DNTPD(60nm)/NPB(5nm)/**TCBPA**(25nm)/mCPPO1:3%Firpic(25nm)/ TSPO1/LiF(1nm) /Al(200nm)

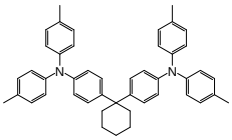
Related products from Lumtec:



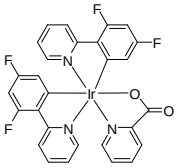
LT-N220 DNTPD



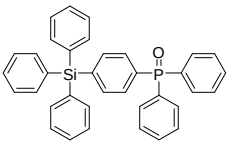
LT-E101 NPB



LT-N137 TAPC



LT-E607 Firpic



LT-N4048 TSPO1

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