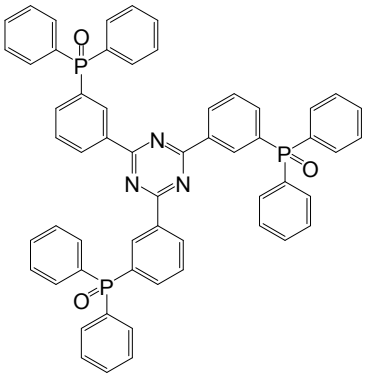
Lumtec Luminescence Technology Corp.

An Exciplex Forming Host for Highly Efficient Blue OLEDs with Low Driving Voltage

Product Specifications

CS10199 PO-T2T 2,4,6-Tris[3-(diphenylphosphinyl)phenyl]-1,3,5-triazine

CAS No.	1646906-26-4
Grade	Sublimed, >99% (HPLC)
Formula	$C_{57}H_{42}N_3O_3P_3$
Molecular Weight	909.8 g/mole
Absorption	272 nm(in CH_2Cl_2)
Photoluminenscence	295, 379 nm(in CH_2Cl_2)
HOMO/LUMO	-6.64/-3.34 eV



Reference : 1. Adv. Funct. Mater. 2015, 25, 361-366
2. Scientific Reports 5:10234(2015)
3. J. Mater. Chem. C, 2015, 3, 4890-4902

Features

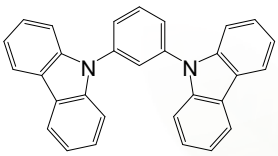
- PO-T2T was developed as an ETL of the FIrPic-based blue phosphorescent OLEDs.
- An unprecedented high performance blue PhOLED showing maximum external quantum efficiency of 30.3%, a maximum power efficiency of 66 lm/W, and low driving voltage of 2.75 at 100 cd/m^2, 3.29 V at 1000 cd/m^2, and 4.65 V at 10000 cd/m^2, respectively.

Device Application

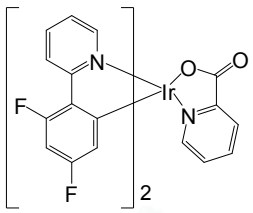
The Best Device 1:
ITO(70 nm)/6% ReO_3:MCP(45 nm)/MCP(15 nm)/MCP:PO-T2T:10% FIrPic(30 nm)/PO-T2T(20 nm)/4% Rb_2CO_3:PO-T2T(25 nm)/Al(100 nm).

The Best Device 2:
ITO/MoO_3(3 nm)/m-CBP(20 nm)/m-CBP:PO-T2T:Ir(BT)$_2$(acac)(0.5%)(20 nm)/PO-T2T(40 nm)/LiF(0.8 nm)/Al.

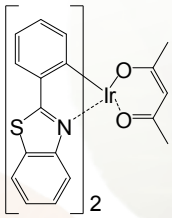
Related products from Lumtec :



LT-E107 MCP



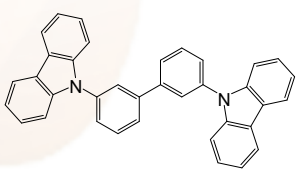
LT-E607 FIrPic



LT-N733 Ir(BT)$_2$(acac)

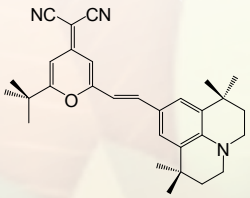
Al

LT-E005 Al



LT-N4069 m-CBP

LT-E707 Rubrene



LT-E704 DCJTB

MoO_3

LT-E003 MoO_3

Address: 2F, No. 17, R&D Road II, Science-Based Industrial Park, Hsin-Chu 30076, Taiwan, R.O.C., TEL: +886-3-666-3188, FAX: +886-3-666-9288.
E-mail : sales@lumtec.com.tw ; Web : http://www.lumtec.com.tw