



High Triplet Energy n-type Dopants for High Efficiency in Phosphorescent OLEDs

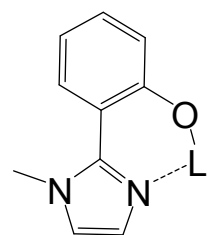
Product Specifications

LT-N896 Lilim

Lithium 2-(1-methyl-1H-imidazol-2-yl)phenolate

CAS No.	1646267-86-8
Grade	Sublimed, >99 %
Formula	$C_{10}H_9LiN_2O$
Molecular Weight	180.13 g/mole
UV absorption	262, 320, 341 nm
Photoluminescence	387 nm (in CH_2Cl_2)
Triplet Energy	2.82 eV

Reference : C.S. Oh, J.Y. Lee / *Organic Electronics* 16 (2015) 34–39



Features

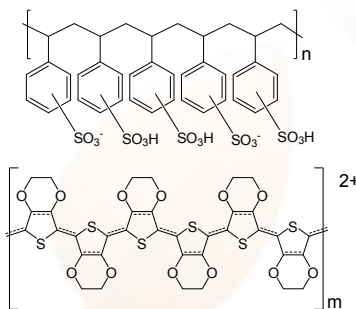
- The Lilim with high triplet energy n-type dopant was effectively synthesized to increase the mobility (two order) of electron transport material and suppress triplet exciton quenching in blue PHOLEDs.
- The quantum efficiency of electron injection layer free PHOLEDs was improved by reduced triplet exciton quenching effect by Lilim compared to Liq.
- The high triplet energy n-type dopant can replace current Liq dopant and simplify the device structure by omitting an electron injection layer.

Device Application

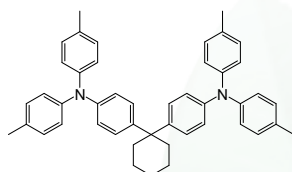
The Blue Device:

ITO (50 nm)/ PEDOT:PSS (60 nm)/ TAPC (20 nm)/ mCBP:Flrpic (25 nm, 10% doping)/ BmPyPb:Lilim (40 nm)/ Al (200 nm).

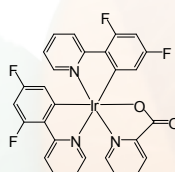
Related products from Lumtec :



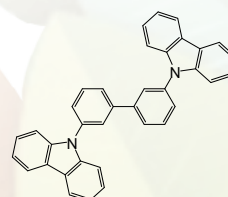
LT-PS001 PEDOT:PSS



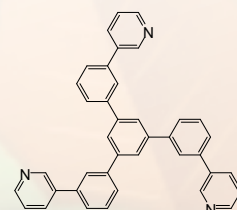
LT-N137 TAPC



LT-E607 FlrPic



LT-N4069 m-CBP



LT-N863 TmPyPB