# Phosphorescent organic light-emitting diodes fabricated using iridium complexes with carbazole-based benzothiazole ligands

## Product Specifications

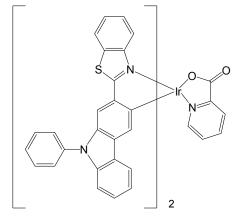
#### LT-N766 Ir(2-BtcPh)<sub>2</sub>(pic)

**CAS No.** 1452824-22-4

Grade Sublimed, >99% (HPLC)

 $\begin{array}{lll} \textbf{Formula} & C_{56}H_{34}\text{IrN}_5O_2S_2 \\ \textbf{Molecular Weight} & 1065.18 \text{ g/mole} \\ \textbf{Absorption} & 324 \text{ nm (in CH}_2\text{Cl}_2) \\ \textbf{Photoluminenscence} & 624 \text{ nm (in CH}_2\text{Cl}_2) \\ \end{array}$ 

TGA >280 °C(0.5% weight loss)



## Features

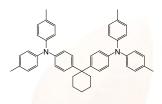
- Ir(2-BtcPh)<sub>2</sub>(pic) used to fabricate Red phosphorescent organic light-emitting devices with a maximum efficiency up to 11.4 lm/W (9.8 cd/A).
- By combining the Red phosphorescence of Ir(2-BtcPh)<sub>2</sub>(pic), Blue emission of Firpic, and the yellow-green emission of FPQIrpic, the highly efficient White emission with a maximum efficiency of 28.8 lm/W & 29 cd/A has been achieved.

## Device Application

#### The Best Device:

**RED OLED:** ITO/PEDOT:PSS(40 nm)/TAPC(30 nm)/TPBi:TcTa:Ir(2-BtcPh)<sub>2</sub>(pic)(5%)(25 nm)/TSPO1(35 nm)/LiF(1 nm)/Al **White OLED:** ITO/PEDOT:PSS(40 nm)/TAPC(20 nm)/mCP:Firpic (3%)(20 nm)/TPBi:FPQIrpic (10%): Ir(2-BtcPh)<sub>2</sub>(pic) (1%)(5 nm)/TPBi(25 nm)/LiF(1 nm)/Al

Related products from Lumtec:

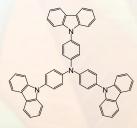


LT-N137 TAPC

LT-E302 TPBi

LT-E607 Firpic

LT-N765 FPQIrpic



LT-E207 TcTa