

# Phenylcarbazole-dipyridyl triazole hybrid as bipolar host material for phosphorescent OLEDs

## Product Specifications

### LT-N4099 m-cbtz

**CAS No.** 1361953-33-4

**Grade** Sublimed, > 99% (HPLC)

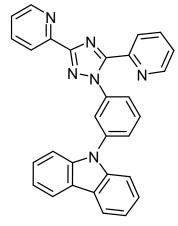
Formula  $C_{30}H_{20}N_6$ 

**Molecular Weight** 564.52 g/mole

**Absorption** 286, 329, 342 nm (film)

**Photoluminenscence** 422 nm (film) **HOMO/LUMO** 5.68 eV/2.15 eV

Reference: J. Mater. Chem., 2012, 22, 5410-5418



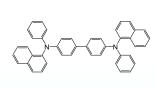
## Features

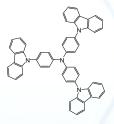
- Bipolar host materials m-cbtz with relatively high triplet energy gaps  $E_T$ =2.75 eV.
- The devices hosted by m-cbtz achieve maximum external quantum efficiencies of 8.8% for blue, 16.7% for green, 17.5% for yellow and 16.7% for red-emitting OLEDs.
- Dual-emitter WOLEDs with a co-doped single emissive layer that exhibit satisfactory device efficiencies EQE=12 %.

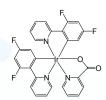
# Device Application

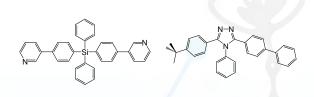
#### The Best Blue Device:

ITO/PEDOT:PSS(30 nm)/NPB(25 nm)/TcTa(5 nm)/m-cbtz: FIrPic(10 wt%, 25 nm)/DPPS(5 nm)/TAZ(45 nm)/LiF(0.5 nm)/Al(100 nm) Related products from Lumtec :









LT-E101 NPB

LT- E207 TcTa

LT-E607 FIrPic

LT-N869 DPPS

LT-N836 TAZ