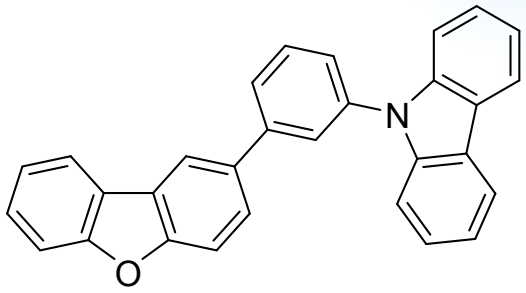
Lumtec Luminescence Technology Corp.

# High Efficiency Solution Processed Blue Host Material for Phosphorescent Organic Light Emitting Diodes

## Product Specifications

**LT-N4061 CzDBF**

| | |
|---|---|
| **Formula** | $C_{30}H_{19}NO$ |
| **Molecular Weight** | 409.48 g/mole |
| **Absorption** | 339 nm |
| **Emission** | 365 nm |
| **HOMO (eV)** | -5.9 eV |
| **LUMO (eV)** | -2.42 eV |
| **$E_T$ (eV)** | 2.82 eV |




*Reference : Organic Electronics 14 (2013) 1009–1014*

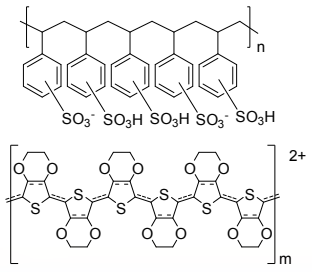
## Features

- An asymmetric carbazole–dibenzofuran hydrid host material, 9-(3-(dibenzo[b,d]furan-2-yl)-phenyl)-9H-carbazole (CzDBF), was synthesized as a host material for solution processed blue PHOLEDs.
- The quantum efficiency of blue PHOLEDs was high in the CzDBF device with a maximum quantum efficiency of 23.9%, and a quantum efficiency at 1000 cd/$m^2$ of 18.9%. The color coordinate of CzDBF blue PHOLEDs was (0.15, 0.30).

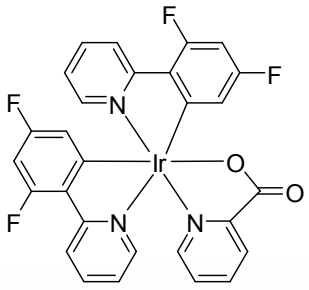
## Device Application

ITO/PEDOT:PSS(60 nm)/PVK(15 nm)/CzDBF:FIrpic (20 nm, 5%)/TSPO1(30 nm)/LiF(1 nm)/Al

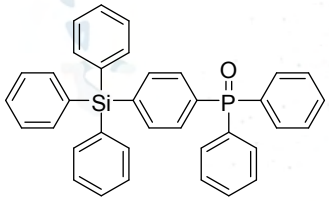
Related products from Lumtec :




LT-N220 DNTPD




LT-E607 FIrpic




LT-N4048 TSP01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