



Luminescence Technology Corp.

Novel Iridium(III) Complex for High-Performance Pure Blue Phosphorescent OLEDs

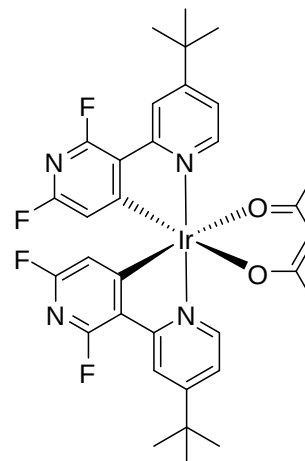
Product Specifications

LT-N669

FK306

Formula	$C_{33}H_{33}F_4IrN_2O_2$
Molecular Weight	785.85 g/mole
5% wt loss Temp	359 °C (by TGA)
Emission (λ_{em})	454nm in $CHCl_3$
HOMO (eV)	-6.3 eV
LUMO (eV)	-3.6eV
E_T	2.83 eV
Assay	>99% (by HPLC)

Reference : J. Mater. Chem. C, 2013, 1, 1070–1075



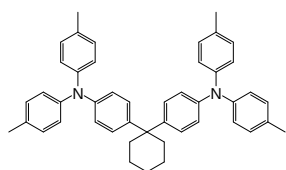
Features

- A novel pure blue phosphorescent emitter FK306 with fluorinated bipyridyl ligands was developed.
- FK306 shows blue emission with a λ_{em} at 454 nm, and the blue is much deeper than that observed for Flrpic (~470nm).
- A blue OLED with FK306 gave an $\eta_{p,max}$ of over 30 lm/W (29 cd/A, EQE 17%) with the CIE chromaticity diagram (x, y) of (0.16, 0.25).

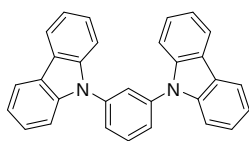
Device Application

ITO/TAPC(40 nm)/ MCP:FK306 15 wt% (10 nm)/BmPyPhB (50 nm)/LiF(0.5 nm)/Al

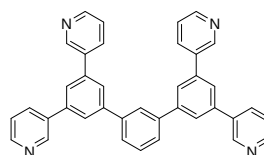
Related products from Lumtec:



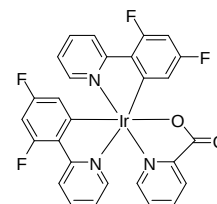
LT-N137 TAPC



LT-E107 MCP



LT-N865 BmPyPhB



LT-E607 Flrpic

Materials are used by qualified for testing and research only, there are not guaranteed in patent contention by customer use.

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