Lumtec Luminescence Technology Corp.

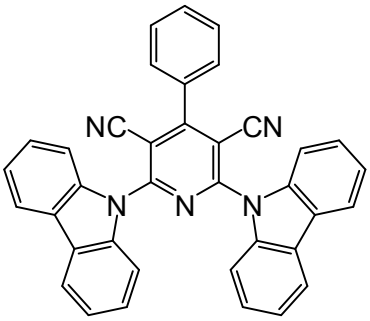
Novel Carbazol-Pyridine-Carbonitrile Derivative as Excellent Blue TADF Emitter for Highly Efficient OLEDs

Product Specifications

LT-N695 CPC 2,4,6-Tris[3-(diphenylphosphinyl)phenyl]-1,3,5-triazine

CAS No.	1803330-63-3
Grade	Sublimed, >99 % (HPLC)
Formula	$C_{37}H_{21}N_5$
Molecular Weight	535.60 g/mole
Photoluminescence	474 nm (in Toluene)
HOMO/LUMO	-6.25V/-3.47V
TGA	>280 °C (0.5 % weight loss)

Reference : ACS Appl. Mater. Interfaces 2015, 7, 9625−9629



Features

- The optimized OLED based on 13 wt % CPC doped in MCP host exhibits maximum current efficiency, power efficiency, and EQE of 47.7 cd A^{-1}, 42.8 lm W^{-1}, and 21.2%, respectively, which are the best results in reported blue TADF-based devices.
- The CPC emitter successfully achieves both extremely small ΔE_{ST} (0.04 eV) and fairish PLQY.

Device Application

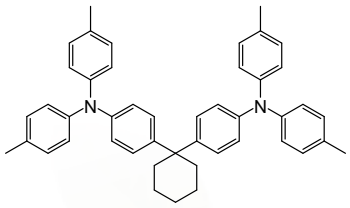
The Best Device:

ITO/ TAPC (30 nm)/ TcTa (10 nm)/ MCP (10 nm)/ CPC: DPEPO (15 wt%, 10 nm)/ DPEPO (10 nm)/ TPBi (30 nm)/ LiF (0.8 nm)/ Al.

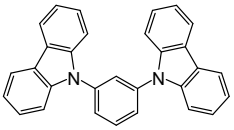
The Best Device 2:

ITO/ TAPC (40 nm)/ TcTa (5 nm)/ CPC: 26DCZPPY (10 wt%, 10 nm)/ TmPyPB (50 nm)/ LiF (0.8 nm)/ Al.

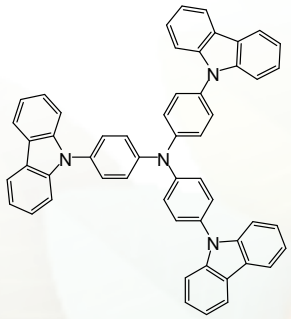
Related products from Lumtec :



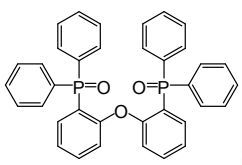
LT- N137 TAPC



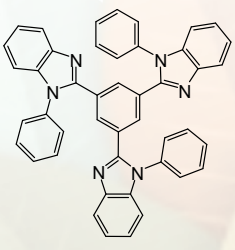
LT-E107 MCP



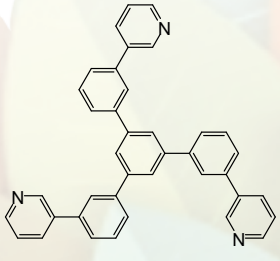
LT-E207 TcTa



LT-N4060 DPEPO



LT-E302 TPBi



LT-N863 TmPyPB

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