



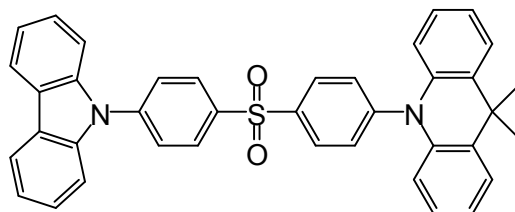
Host Engineering for High Quantum Efficiency Blue and White Fluorescent OLEDs

Product Specifications

LT-N4120 CzAcSF 10-(4-(4-(9H-carbazol-9-yl)phenylsulfonyl)phenyl)-9,9-dimethyl-9,10-dihydroacridine

CAS No.	1792173-34-2
Grade	Sublimed, >99 % (HPLC)
Formula	C ₃₉ H ₃₀ N ₂ O ₂ S
Molecular Weight	590.73 g/mole
Photoluminescence	443, 466 nm (in CH ₂ Cl ₂)
HOMO/LUMO	-5.89 eV/-3.00 eV
Tg	117 °C
Triplet Energy	3.04 eV

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



Features

- The high quantum efficiency blue and white fluorescent OLEDs with external quantum efficiencies of 15.4% and 14.0% are developed by doping fluorescent emitters in the TADF type CzAcSF host material.
- The development of high efficiency single layer TADF device and the use of the TADF material as the host of a fluorescent dopant can boost the quantum efficiency of the blue and white fluorescent devices above 20%.

Device Application

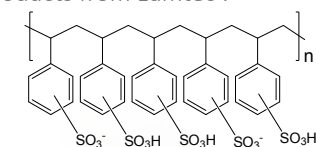
The Blue Device:

ITO/PEDOT:PSS(60 nm)/MCP(30 nm)/CzAcSF: 0.3%TBPe(25 nm)/TSPO1(5 nm)/TPBi(30 nm)/LiF(1 nm)/Al(200 nm).

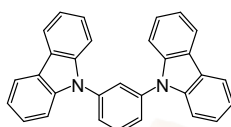
The White Device:

ITO/PEDOT:PSS(60 nm)/MCP(30 nm)/CzAcSF:0.3%TBPe:0.4%TBRb(25 nm)/TSPO1(5 nm)/TPBi(30 nm)/LiF(1 nm)/Al(200 nm).

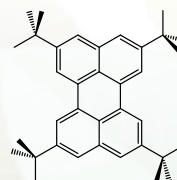
Related products from Lumtec :



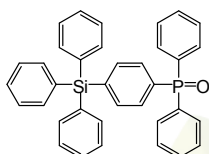
LT-PS001 PEDOT:PSS



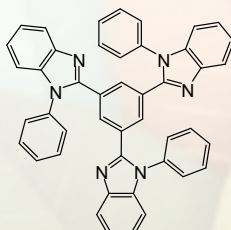
LT-E107 MCP



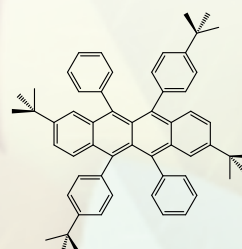
LT-E603 TBPe



LT-N4048 TSPO1



LT-E302 TPBi



LT-N732 TPRb

Our products are used for testing and research purpose; they are not guaranteed in patent contention by customer use.

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