



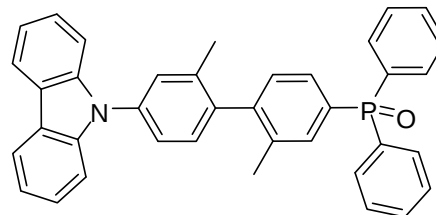
Luminescence Technology Corp.

High Efficiency Deep-Blue PhOLEDs with CIE x,y (≤ 0.15) and Low Efficiency Roll-Off by Employing a High Triplet Energy Bipolar Host Material

Product Specifications

LT-N4174 m-CBPPO

Name.	(4'-(9H-carbazol-9-yl)-2,2'-dimethyl-[1,1'-biphenyl]-4-yl)diphenylphosphine oxide
CAS No.	1206906-21-9
Grade	Sublimed, >99 % (HPLC)
Formula	$C_{38}H_{30}NOP$
Molecular Weight	547.62 g/mole
Absorption	293, 328, 341 nm (in 2-MeTHF)
Emission	350, 362 nm (in 2-MeTHF)
HOMO/LUMO	-5.68 eV/ -2.18 eV



* Reference: Adv. Funct. Mater. **2018**, 28, 1802945

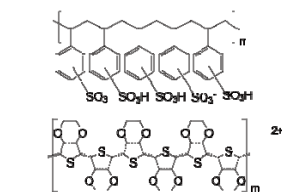
Features

- The optimized devices show an excellent EQE of 24.8%. It's the highest reported for deep-blue PHOLEDs with very low efficiency roll-off and also indicate the importance of appropriate host for the development of high performance deep-blue PHOLEDs.

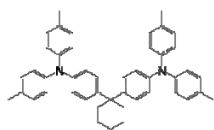
Device Application

The Deep-Blue TADF Device:

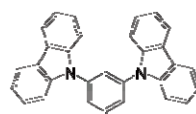
ITO/ PEDOT:PSS (60 nm)/ TAPC (20 nm)/ MCP (10 nm)/ m-CBPPO:Ir(cb)₃ (25 nm)/ TSP01 (5 nm)/ TPBi (20 nm)/ LiF/ Al.



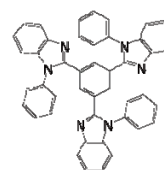
LT-PS001 PEDOT:PSS



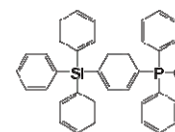
LT-E137 TAPC



LT-E107 MCP



LT-E302 TPBi



LT-N4048 TSP01

LiF = LT-E001

Al = LT-E005

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

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