



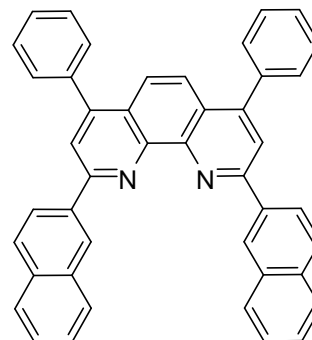
Highly Efficient Organic Light-Emitting Diode Using A Low Refractive Index Electron Transport Layer

Product Specifications

LT-N843

NBPhen

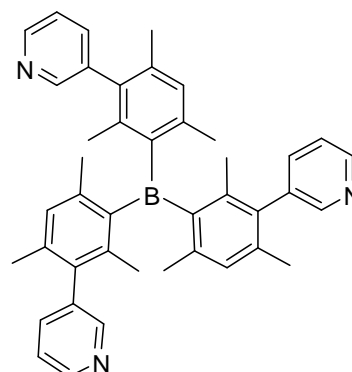
Name.	2,9-Bis(naphthalen-2-yl)-4,7-diphenyl-1,10-phenanthroline
CAS No.	1174006-43-9
Grade	Sublimed, >99 % (HPLC)
Formula	C ₄₄ H ₂₈ N ₂
Molecular Weight	584.71 g/mole
UV	264,349 nm (in THF)
PL	412 nm (in THF)
HOMO/LUMO	-5.8 eV/ -2.6 eV
TGA	>340 °C (0.5% weight loss)



LT-N856

3TPYMB

Name.	Tris(2,4,6-trimethyl-3-(pyridin-3-yl)phenyl)borane
CAS No.	929203-02-1
Grade	Sublimed, >99 % (HPLC)
Formula	C ₄₂ H ₄₂ BN ₃
Molecular Weight	599.61 g/mole
UV	331 nm (in THF)
PL	382 nm (in THF)
HOMO/LUMO	-6.8 eV/ -3.3 eV
TGA	>340 °C (0.5% weight loss)



* Reference: *Adv. Optical Mater.* **2017**, 1700197

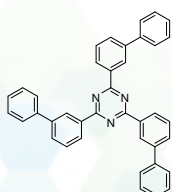
Features

- The compound of 3TPYMB has a low refractive index of 1.65 (at 550 nm), which is the lowest refractive index ETL among the commonly used ETLs up to date. The EQE of a solution processed OLED using a TADF emitter is increased by 76% using 3TPYMB as the ETL.

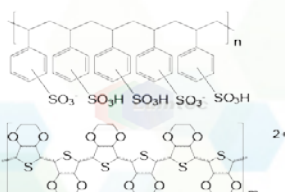
Device Application

The Device A: ITO (100 nm)/ PEDOT:PSS (35 nm)/ PLEXCORE UT-314 (20 nm)/ PYD2: Cu(I)-iBuPyrPHOS 1:1 (30 nm)/ T2T (20 nm)/ NBPhen (30 nm)/ LiF (1 nm)/ Al.

The Device B: ITO (100 nm)/ PEDOT:PSS (35 nm)/ PLEXCORE UT-314 (20 nm)/ PYD2: Cu(I)-iBuPyrPHOS 3:1 (30 nm)/ 3TPYMB (70 nm)/ LiF (1 nm)/ Al.



T2T



LT-PS001 PEDOT:PSS

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

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