

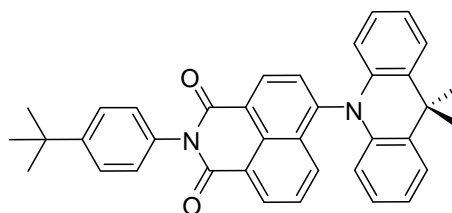


Achieving Nearly 30% EQE for Orange-Red OLEDs by Employing TADF Emitters composed of 1,8-Naphthalimide-Acridine Hybrids

Product Specifications

LT-N797 NAI-DMAC

Name.	N-(4-tert-butylphenyl)-1,8-naphthalimide-9,9-dimethyl-9,10-dihydroacridine
CAS No.	2196247-08-0
Grade	Sublimed, >99 % (HPLC)
Formula	C ₃₇ H ₃₂ N ₂ O ₂
Molecular Weight	536.66 g/mole
Absorption	353,460 nm (in Toluene 10 ⁻⁵ M)
Emission	582 nm (in Toluene 10 ⁻⁵ M)
HOMO/LUMO	-5.41 eV/ -2.99 eV
ΔE_{ST}	0.09 eV
T_d	374 °C (5% weight loss)



* Reference: Chem. Mater. 2016, 28, 5667-5679

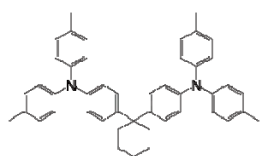
Features

- The emitter NAI-DMAC exhibited the best external quantum efficiency of 23.4%, power efficiency of 53.1 lm/W and current efficiency of 50.7 cd/A.

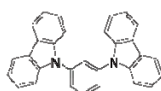
Device Application

The orange TADF Device:

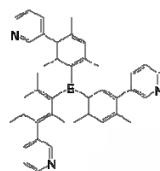
ITO/ MoO₃ (2 nm)/ TAPC (70 nm)/ MCP (10 nm)/ mCPCN:1.5wt% NAI-DMAC (20 nm)/ 3TPYMB (70 nm)/ LiF (0.5 nm)/ Al.



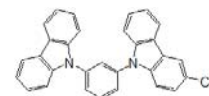
LT-N137 TAPC
MoO₃ = LT-E003



LT-E107 MCP
LiF = LT-E001



LT-N856 3TPYMB
Al = LT-E005



LT-N4148 mCPCN

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

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