

A versatile thermally activated delayed fluorescence emitter for both highly efficient doped and non-doped organic light emitting devices

Product Specifications

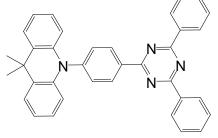
LT-N699 DMAC-TRZ

CAS No. 1628752-98-6

Grade Sublimed, > 99% (HPLC)

Formula $C_{36}H_{28}N_4$

Molecular Weight516.63 g/moleAbsorption390 nm(in Toluene)Photoluminenscence425 nm(in Toluene)HOMO/LUMO-5.30 eV/-2.78 eVReference:Chem. Commun., 2015, 51, 13662-13665



Features

- The emitter as the emitting dopant in a host or as the non-doped emitting layer achieves high EL EQEs of up to 26.5% and 20% in OLEDs.
- The emitter not only shows high PLQY (≥90%) in doped film but also possesses low concentration quenching and high PLQY (83%) in neat film.
- It's versatile for application in different device configurations for achieving high efficiency, device simplification, and cost reduction.

Device Application

The doped Device:

ITO anode/ PEDOT: PSS (70 nm)/ TAPC (15 nm)/ MCP (5 nm)/ mCPCN:DMAC-TRZ 8 wt% (20 nm)/ DPPS (5 nm)/ 3TPYMB (45 nm)/ LiF (0.5 nm)/ Al (150 nm).

The non-doped Device:

ITO anode/ PEDOT: PSS (70 nm)/ TAPC (10 nm)/ MCP (10 nm)/ DMAC-TRZ (20 nm)/ DPPS (5 nm)/ 3TPYMB (45 nm)/ LiF (0.5 nm)/ Al (150 nm).

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