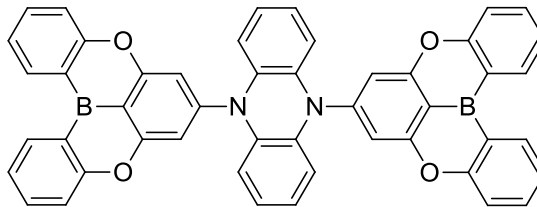


Acceptor–Donor–Acceptor-Type Orange–Red Thermally Activated Delayed Fluorescence Materials Realizing External Quantum Efficiency Over 30% with Low Efficiency Roll-Off

Product Specifications

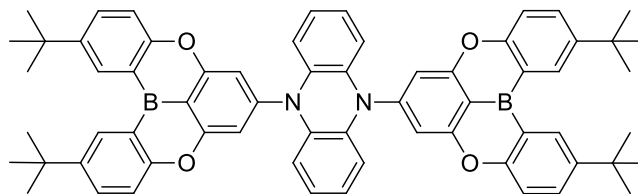
LT-N7013 PzDBA

Grade	Sublimed, >99% (HPLC)
Formula	C ₄₈ H ₂₈ B ₂ N ₂ O ₄
M.W.	718.37 g/mole
PL	610 nm (Toluene)
HOMO/LUMO	-4.98/-2.80 eV
ΔEST	0.05 eV



LT-N7014 PzTDBA

Grade	Sublimed, >99% (HPLC)
Formula	C ₆₄ H ₆₀ B ₂ N ₂ O ₄
M.W.	942.79 g/mole
PL	599 nm (Toluene)
HOMO/LUMO	-4.94/-2.71 eV
ΔEST	0.06 eV



*Reference: *Adv. Mater*, 2021, 33, 2007724

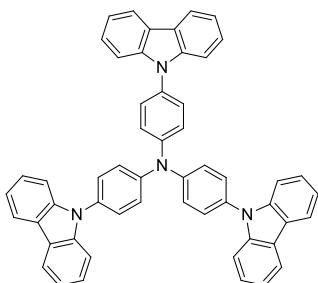
Features

- The orange–red TADF devices fabricated with 5 wt% **PzTDBA** and **PzDBA** as emitting dopants show **maximum EQE** of **30.3%** and **21.8%** with extremely **low roll-off** of **3.6%** and **3.2%** at **1000 cd m⁻²** and electroluminescence (EL) maxima at 576 nm and 595 nm, respectively.
- These devices show operating device lifetimes (LT₅₀) of **159** and **193 h** at **1000 cd m⁻²** for **PzTDBA** and **PzDBA**, respectively..

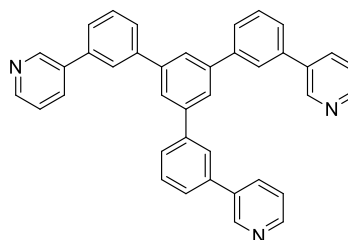
Device Application

Device: ITO / HATCN / NPB / TCTA / 5 wt% PzDBA or PzTDBA : TCTA : Bepp₂ / TmPyPB / LiF / Al.

Related products from Lumtec:



LT-E207 TCTA



LT-N863 TmPyPB