



Luminescence Technology Corp.

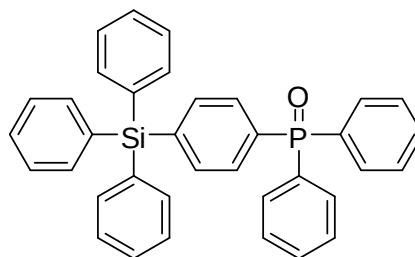
Novel Electron Transport Type Exciton Blocking Materials for Solution-Processed Blue/White Phosphorescent OLED

Product Specifications

LT-N4048 TSPO1

Formula	$C_{36}H_{29}OPSi$
Molecular Weight	536.67 g/mole
HOMO (eV)	-6.79 eV
LUMO (eV)	-2.54 eV
E_t (eV)	3.36 eV

Reference : Organic Electronics 12 (2011) 1293–1297

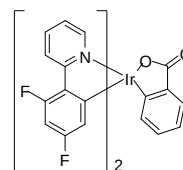


Device Application- Blue

Solution-processed blue phosphorescent device configuration:

ITO/PEDOT:PSS (60nm)/PVK:15%Flrpic (66nm)/**TSPO1** (35 nm)/LiF (1nm)/Al (100nm)

- A quantum efficiency of 19.4%, a current efficiency of 35.9 cd/A were achieved in the solution processed blue PHOLEDs with a PVK:Flrpic emitting layer.



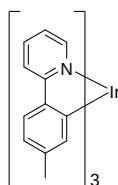
LT-E607 Flrpic

Device Application- White

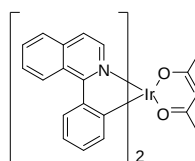
Solution-processed white phosphorescent device configuration:

ITO/PEDOT:PSS (60 nm)/PVK:Flrpic:Ir(mppy)₃:Ir(piq)₂(acac) (70 nm, 15%, x%, 0.5%) /**TSPO1** (30 nm)/LiF (1 nm)/Al (100 nm)

- The maximum current efficiency of the white PHOLEDs was 28.2 cd/A and a high current efficiency of 27.4 cd/A was kept at 1,000 cd/m².
- The color coordinates of the white PHOLEDs with 1% and 0.3% Ir(mppy)₃ doping concentration were (0.40, 0.49) and (0.37, 0.44), respectively.



LT-N506 Ir(mppy)₃



LT-E713 Ir(piq)₂(acac)

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

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