Lumtec Luminescence Technology Corp.

#### Novel Host / Dopant Material for High Efficiency Deep Blue Fluorescence OLEDs

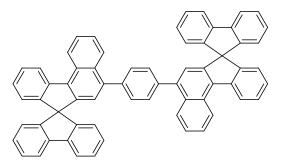
## **Product Specifications**

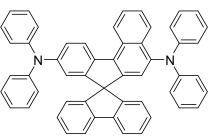
# LT-N4087 SBFF2B

Formula	С <sub>64</sub> П <sub>38</sub>
Molecular Weight	806.99 g/mole
Absorption	341,365 nm (solution)
Emission	429 nm (solution)
T <sub>d</sub>	462 °C
T <sub>g</sub>	223 °C
НОМО	-5.95 eV
LUMO	-2.77eV
Reference : Dyes and	Pigments 98 (2013) 471-478

#### LT-N677 TPA-SBFF

Formula	$C_{53}H_{36}N_2$	
Molecular Weight	700.87 g/mole	/=
Absorption	407 nm (solution)	1
Emission	478 nm (solution)	
T <sub>d</sub>	429 °C	/=
Τ <sub>g</sub>	120 °C	
НОМО	-5.48 eV	
LUMO	-2.74 eV	





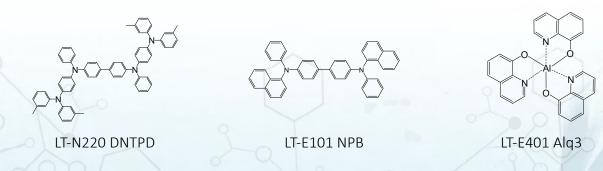
Reference : 1. Dyes and Pigments 98 (2013) 471-478 2. Bull. Korean Chem. Soc. 2012, Vol. 33, No. 7 2287

### **Features**

- The spirobenzofluorene group is advantageous for morphological stability of the host/dopant material at a high temperature, both SBFF2B and TPA-SBFF show high thermal stability of  $T_d > 400$  °C.
- A basic device obtained from SBFF2B doped with TPA-SBFF showed a high color purity of (0.146 and 0.148), efficiency of 7.44 cd A<sup>-1</sup> and an external quantum efficiency of 5.60% at 7 V.

## Device Application

ITO /DNTPD(60 nm)/NPB(30 nm)/SBFF2B : TPA-SBFF(30 nm, 10%)/Alq3(20 nm)/LiF(1 nm)/Al(200 nm) Related products from Lumtec :



Our products are used for testing and research purpose; they are not guaranteed in patent contention by customer use. Address: 2F, No. 17, R&D Road II, Science-Based Industrial Park, Hsin-Chu 30076, Taiwan, R.O.C., TEL: +886-3-666-3188, FAX: +886-3-666-9288. E-mail : sales@lumtec.com.tw : Web : http://www.lumtec.com.tw