Luminescence Technology Corp.

Highly Efficient Blue OLED Based on 9-anthracene-spirobenzofluorene Derivatives as Host Materials

Product Specifications

LT-N4178 BH-9PA

Name. 9-(10-phenylanthracen-9-yl)spiro-[benzo[c]fluorene-7,9'-fluorene]

CAS No. 1262281-88-8

Grade Sublimed, >99 % (HPLC)

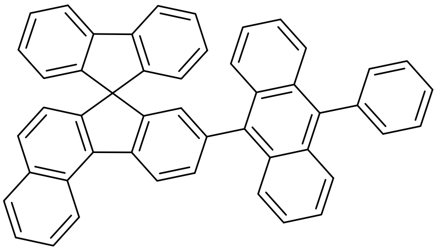
Formula $C_{49}H_{30}$

Molecular Weight 618.76 g/mole

UV absorption 395 nm(in $CHCl_3$)/ 400 nm(in films)

Emission 428nm (in $CHCl_3$)/ 444 nm (in films)

HOMO/LUMO -5.87 eV/ -2.91 eV



** Reference: J. Mater. Chem.,* ***2010****, 20, 10735-10746*

Features

- An OLED made using BH-9PA as a host showed EQE and luminescence efficiency (LE) reaching 5.35% and 6.52 cd/A, respectively, with CIE coordinates of (0.13, 0.15) at a current density 21.64 mA/cm^2 and doped with DSA-Ph and BD-6MDPA showed blue EL spectra at 468 and 464 nm at 7 V.

Device Application

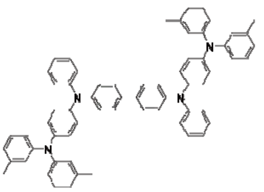
The Device:

ITO/ DNTPD (60 nm)/ NPB (30 nm)/ BH-9PA:BD-6MDPA (20 nm, 5 wt%)/ Alq3 (20 nm)/ LiF (1 nm)/ Al.

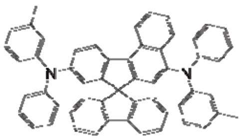
The Device:

ITO/ DNTPD (60 nm)/ NPB (30 nm)/ BH-9PA:DSA-Ph (20 nm, 5 wt%)/ Alq3 (20 nm)/ LiF (1 nm)/ Al.

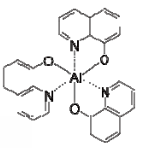
LT-E101 NPB



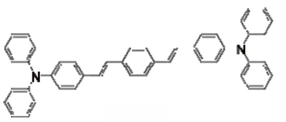
LT-N220 DNTPD



LT-N680 BD-6MDPA



LT-E401 Alq3



LT-N631 DSA-Ph

LiF = LT-E001 Al = LT-E005

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