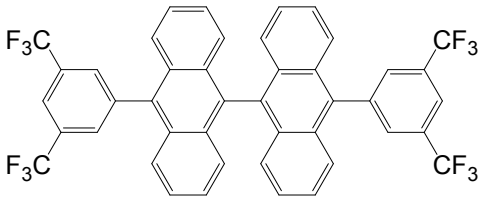
Highly Efficient Deep-Blue Organic Electroluminescent Eevices (CIEy ≈ 0.08) Doped With Fluorinated 9,9′-Bianthracene Derivatives

Product Specifications

LT-N678 BAn-(3,5)-CF_3

Grade	Sublimed, > 99% (HPLC)
Formula	$C_{44}H_{22}F_{12}$
Molecular Weight	778.63 g/mole
Absorption	259, 379, 400 nm (in CH_2Cl_2)
Photoluminenscence	440 nm (in CH_2Cl_2)

Reference : J. Mater. Chem. C, 2013, 1, 8117



Features

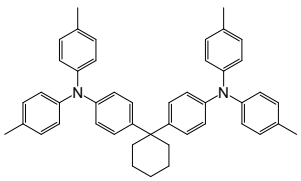
- A series of new fluorinated 9,9′-bianthracene derivatives (BAnFs) have been designed and synthesized to serve as deep-blue dopants in organic electroluminescent (EL) devices.
- All the BAnFs show a considerable thermal stability, which have high Tg values, above 150 °C.
- A pure blue emission at the CIE (0.156, 0.083), has been achieved using the host CBP doped with BAn-(3,5)-CF_3.
- The maximum current efficiency and power efficiency of the BAn-(3,5)-CF_3-doped device are 3.05 cd A^{-1} and 2.62 lm W^{-1}, corresponding to 5.02% of the maximum external quantum efficiency.

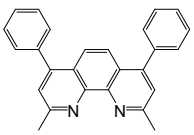
Device Application

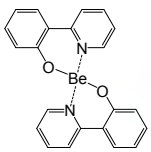
Best Deep Blue OLED Device :
ITO/MoO_3(3 nm)/TAPC(40 nm)/BAn-(3,5)-CF_3(20 nm)/BCP(10 nm)/$Bepp_2$(30 nm)/Cs_2CO_3(3 nm)/Al

Related products from Lumtec :

MoO_3







Cs_2CO_3

LT-E003 MoO_3 | LT-N137 TAPC | LT-E304 BCP | LT-N634 $Bepp_2$ | LT-E002 Cs_2CO_3

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