



FEIMING CHEMICAL LIMITED

Technology Data Sheet

General Information

Name: Spiro-TTB

CAS number 515834-67-0

Full name 2,2',7,7'-Tetra(N,N-di-p-tolyl)amino-9,9-spirobifluorene

Chemical formula $C_{81}H_{68}N_4$

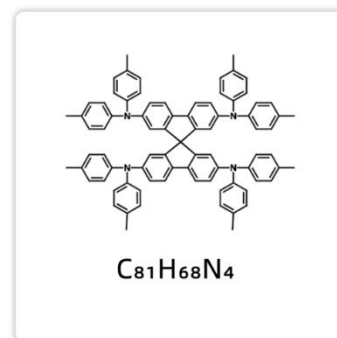
Molecular weight 1097.43 g/mol

Absorption λ_{max} 384 nm in DCM

Fluorescence λ_{max} 413 nm in DCM

HOMO/LUMO HOMO = 5.25 eV

Classification / Family Spirofluorene derivative, Hole transport layer materials, Perovskite solar cells, Organic electronics.



Specification

Purity Unsublimed > 98% (1H NMR)

Melting point Tg = 146 °C

Appearance Light yellow powder/crystals

Description

Spiro-TTB has a spirofluorene core with four attached ditolylamine at the 2 and 7 positions of spirofluorene. Like Spiro-OMeTAD, it is electron-rich and commonly used as a hole-transport layer material in OLED, OPV, and perovskite solar cells.

Compared to Spiro-OMeTAD, Spiro-TTB is less electron-rich, with four methoxyl groups being replaced by four methyl groups. It has a deeper HOMO energy level, which gives greater VOC, thus, better device performance can be expected.

Package and Storage

1g/5g /10g / btl. store at room temperature in a cool and dry place.