



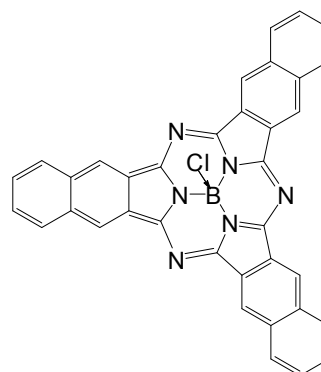
Universal Design Principles for Cascade Heterojunction Solar Cells with High Fill Factors and Internal Quantum Efficiencies Approaching 100%

Product Specifications

LT-S947 SubNC

CAS No.	142710-56-3
Formula	$C_{36}H_{18}BClN_6$
Grade	Sublimed product
Molecular Weight	580.83 g/mole
Absorption	658 nm (in CH_2Cl_2)
TGA	> 370 °C (0.5% weight loss)

Reference : Adv. Energy Mater. 2014,1400216



Features

- Cascade heterojunction (CHJ) organic solar cells have recently emerged as an alternative to conventional bulk heterojunctions and series-connected tandems due to their significant promise for high internal quantum efficiency (IQE) and broad spectral coverage.
- By matching the maximum power point voltage of the constituent parallel-connected heterojunctions and minimizing the injection barriers intrinsic to CHJs, high FF and PCE can be achieved.
- Optimized CHJ devices are demonstrated with > 99% IQE in the interlayer and a 46% increase in PCE compared to a single heterojunction(SHJ) reference (4.1% versus 2.8%: best OPV device used SubNC as donor).

Device Application

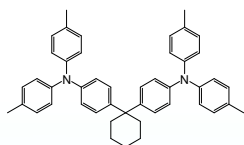
Best OPV Device :

ITO/TAPC(5 nm)/SubNC(8.5 nm)/C70(36 nm)/BCP(10 nm)/Al

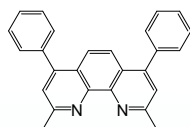
Related products from Lumtec :



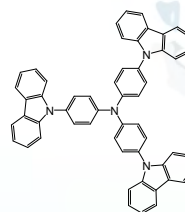
LT-S903 C₆₀



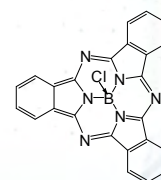
LT-N137 TAPC



LT-E604 BCP



LT-E207 TCTA



LT-S943 SubPC