

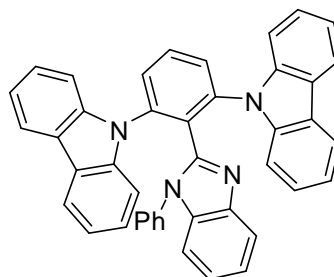


Orthogonally Substituted Benzimidazole-Carbazole Benzene As Universal Hosts for PHOLEDs

Product Specifications

LT-N4125 *o*-DiCbzBz

Name	9,9'-(2-(1-phenyl-1H-benzo[d]imidazol-2-yl)-1,3-phenylene)bis(9H-carbazole)
CAS No.	1874260-94-2
Grade	Sublimed, >99 % (HPLC)
Formula	C ₄₃ H ₂₈ N ₄
Molecular Weight	600.71 g/mole
HOMO/LUMO	-5.8 eV/ -2.3 eV
TGA	>381 °C (0.5 % weight loss)



* Reference: *Org. Lett.* **2016**, *18*, 672–675

Features

- The PhOLEDs show a high current efficiency, power efficiency, and low efficiency roll-off. *o*-DiCbzBz can be used as a host for sky-blue, green, and orange-red PhOLEDs, giving 57.5, 78.4, and 60.3 cd/A, respectively.

Device Application

The sky-blue Device:

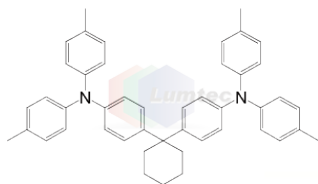
ITO/ TAPC (50 nm)/ MCP (10 nm)/ host: 6% FIrPic (30 nm)/ DPPS (45 nm for *o*-DiCbzBz)/ LiF (0.9 nm)/ Al (120 nm).

The green Device:

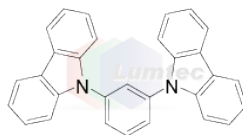
ITO/ TAPC (50 nm)/ MCP (10 nm)/ host: 6% Ir(ppy)₃ (30 nm)/ DPPS (45 nm for *o*-DiCbzBz)/ LiF (0.9 nm)/ Al (120 nm).

The orange-red Device:

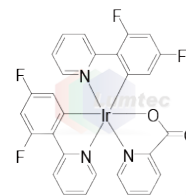
ITO/ TAPC (50 nm)/ MCP (10 nm)/ host: 0.5% (Bt)₂Ir(acac) (30 nm)/ DPPS (45 nm for *o*-DiCbzBz)/ LiF (0.9 nm)/ Al (120 nm).



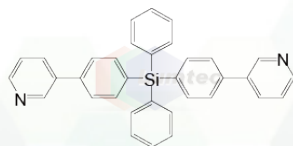
LT-N137 TAPC



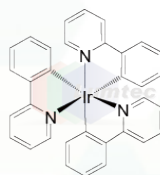
LT-E107 MCP



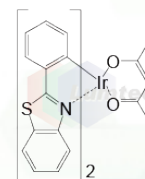
LT-E607 FIrPic



LT-N869 DPPS



LT-E504 fac-Ir(ppy)₃



LT-N733 Ir(BT)₂(acac)

Materials are used by qualified for testing and research only, there are not guaranteed in patent contention by customer use.

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