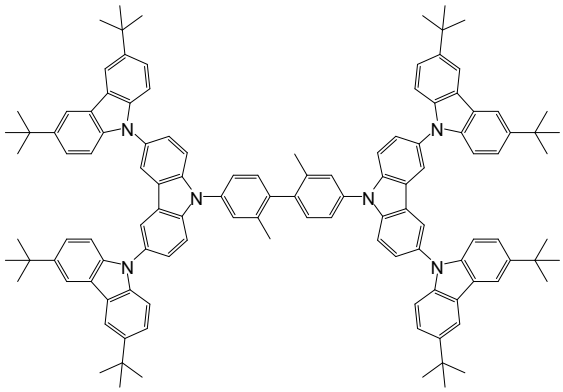
Lumtec Luminescence Technology Corp.

Solution-Processable Small-Molecular Host Materials For High-Performance Phosphorescent Organic Light-Emitting Diodes

Product Specifications

LT-N4090 CMP

CAS No.	1529774-51-3
Grade	> 98% (HPLC)
Formula	$C_{118}H_{120}N_6$
Molecular Weight	1622.26 g/mole
Absorption	297, 349 nm (in CH_2Cl_2)
Photoluminenscence	295 nm (in CH_2Cl_2)
HOMO/LUMO	-5.32 eV /-2.19 eV



Reference : *1. ACS Appl. Mater. Interfaces 2014, 6, 10429–10435*

2. J. Mater. Chem. C, 2014, 2, 3270-3277

Features

- Green phosphorescent OLEDs containing CMP as a host, exhibit maximum efficiencies of 33 cd A^{-1}, which far exceed that (23 cd A^{-1}) of the control device with the polyvinylcarbazole host.
- The versatility of the host (CMP) also spread to Orange devices by solution method and peak efficiencies of 35 cd A^{-1} was achieved.

Device Application

Green Device :

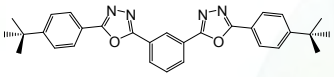
ITO/PEDOT:PSS(40 nm)/CMP : 30 wt% OXD-7 : 5 wt% $Ir(ppy)_3$(40 nm)/TPBi(40 nm)/LiF(1 nm)/Al(100 nm)

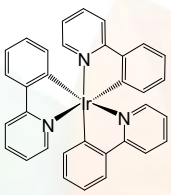
Orange Device :

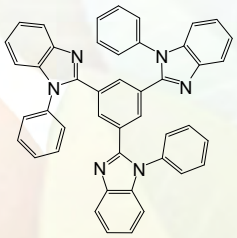
ITO/PEDOT:PSS(40 nm)/CMP: 30 wt% OXD-7: 10 wt%$(CF3\text{-}bt)_2Ir(acac)$(40 nm)/TPBi(40 nm)/LiF(1 nm)/Al(100 nm)

Related products from Lumtec :

PEDOT:PSS







LiF

LT-PS001 LT-N855 OXD-7 LT-E504 $Ir(ppy)_3$ LT-E302 TPBi LT-E001 LiF

Our products are used for testing and research purpose; they are not guaranteed in patent contention by customer use.

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