

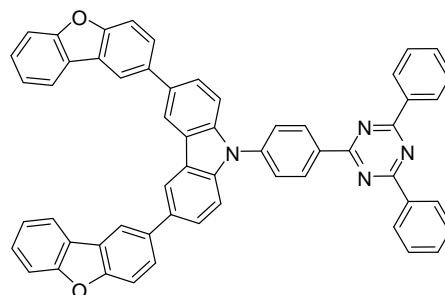


Dibenzofuran/dibenzothiophene as the secondary electron-donors for highly efficient blue thermally activated delayed fluorescence emitters

Product Specifications

LT-N6039 BDBFCz-Trz

Name.	3,6-bis(dibenzo[b,d]furan-2-yl)-9-(4-(4,6-diphenyl-1,3,5-triazin-2-yl)phenyl)-9H-carbazole
CAS No.	1361094-87-2
Grade	Sublimed, >99 % (HPLC)
Formula	C ₅₇ H ₃₄ N ₃ O ₂
Molecular Weight	806.91 g/mole
Absorption	377 nm (in Toluene)
EL	488 nm (device)
HOMO/LUMO	-5.75 eV/ -2.75 eV
ΔE_{ST}	0.2 eV



* Reference: *J. Mater. Chem. C* **2019**, *7*, 4475–4483

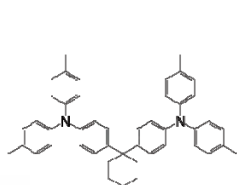
Features

- The BDBFCz-Trz-based device achieves the highest maximum forward-viewing CE of 54.5 cd/A, PE of 48.9 lm/W and EQE of 25.1%. These results once again prove that the exciton utilization of TADF emitters can be improved by extending their HOMO distributions. BDBFCz-Trz exhibit cyan emission with peaks of 488 nm and CIE coordinates of (0.18, 0.35).

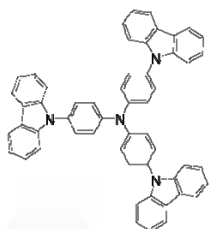
Device Application

The Blue TADF Device:

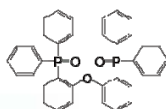
ITO/ TAPC (30 nm)/ TcTa (10 nm)/ CzSi (10 nm)/ DPEPO: 15 wt% BDBFCz-Trz (20 nm)/ DPEPO (5 nm)/ TmPyPB (40 nm)/ LiF (1 nm)/ Al.



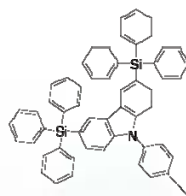
LT-N137 TAPC



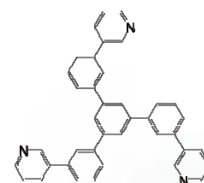
LT-E207 TcTa
LiF = LT-E001



LT-N4060 DPEPO
Al = LT-E005



LT-N484 CzSi



LT-N863 TmPyPB

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

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