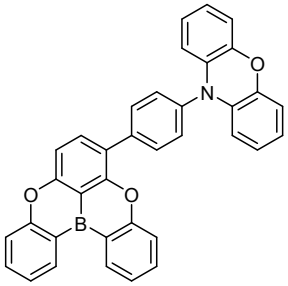
Asymmetric thermally activated delayed fluorescence (TADF) emitters with 5,9-dioxa-13b-boranaphtho[3,2,1-de]anthracene (OBA) as acceptor and highly efficient blue-emitting OLEDs

Product Specifications

LT-N6055 OBA-O

CAS No.	2376652-72-9
Grade	Sublimed,>99%(HPLC)
Formula	$C_{36}H_{22}BNO_3$
M.W.	527.38 g/mole
HOMO/LUMO	-5.15/-2.31 eV
△EST	0.09 eV



* *J. Mater. Chem. C, 2019,7, 11953-11963*

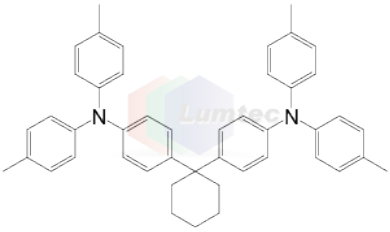
Features

- A deep-blue TADF material: OBA-O emission at 440 nm can be achieved with very high PLQY of ca. 0.84 in doped film.
- The novel OBA-based TADF emitters OBA-O, the doped OLEDs can exhibit attractive EL performances in blueemitting OLEDs with a maximum ηext of 17.8%, ηL of 33.2 cd A−1,ηP of 34.2 lm W−1 and EL maximum 448 nm associating CIE(0.17, 0.17).

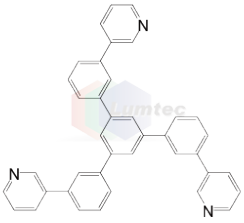
Device Application

Device: ITO/ HATCN (5 nm)/ TAPC (40 nm)/ 5wt% OBA-O : mCP (20 nm)/ TmPyPB (40 nm)/ LiF (1 nm)/ Al (100 nm)

Related products from Lumtec:



LT-N137 TAPC



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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