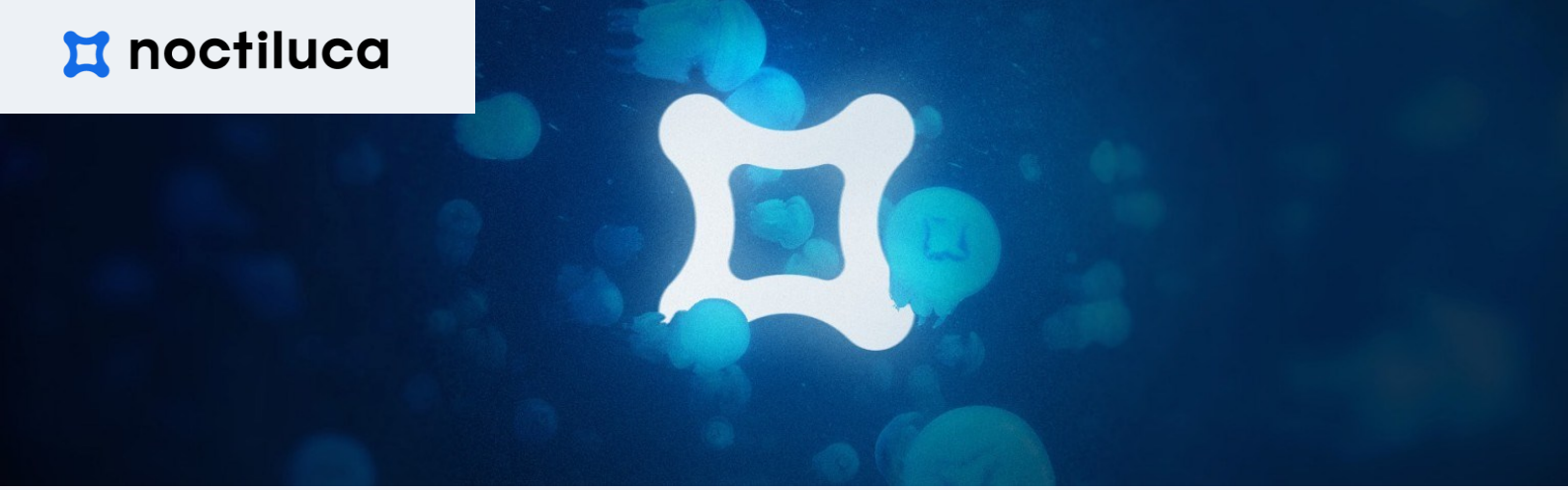
noctiluca



次世代OLED開発用
材料カタログ

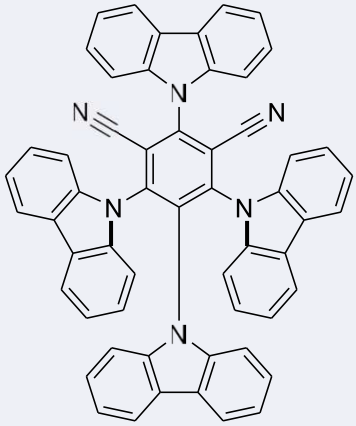
フィルジェン株式会社

Noctiluca 社は次世代ディスプレイのために、第３世代（TADF）、第４世代（Hyper-fluorescence）のOLEDエミッターシステムを開発しています。

Noctiluca社のチームはミリグラムスケールから数キログラムまでの有機および有機金属化合物の生産の両方で15年以上の経験を持っています。

ガリウム、ジルコニウム、錫、インジウムの高純度有機金属化合物のALDおよびCVD応用、DSSC応用のグラッツェル型色素、その他の有機材料などの経験があります。
空気や湿気に敏感な有機・有機金属化合物の合成に必要な実験装置、容量50Lまでの反応器、工業用ロータリーエバポレーター、マイクロリアクター、フローリアクター、電気化学反応器などを備えています。GCとGCMS、HPLCとHPLC MS、IRとUV-VIS分光計、NMR（700MHz、400MHz、300 MHz）、ICP-MS、SEM、TEMも完備しています。

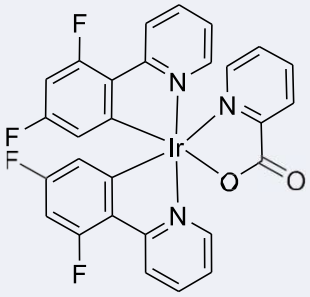
OLED DOPANT MATERIALS



4CzIPN

2,4,5,6-Tetra(9H-carbazol-9-yl)isophthalonitrile

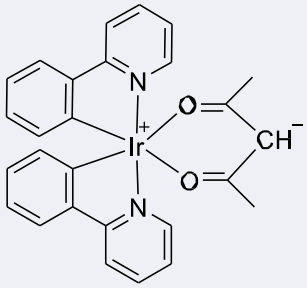
CAS number	1416881-52-1
Chemical formula	C56H32N6
Molecular weight	788.89 g/mol
Absorption*	λmax 365 nm in acetonitrile
Fluorescene	λem 551 nm in acetonitrile
HOMO/LUMO	HOMO = 5.8 eV, LUMO = 3.4 eV [1]
Synonyms	2,4,5,6-Tetra(9H-carbazol-9-yl)isophthalonitrile
Classification	**TADF green emitter materials**
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*TGA: 366-368°C*
Appearance	*Orange-yellow powder/crystals*



FIrPic

Bis[2-(4,6-difluorophenyl)pyridinato-C2,N](picolinato)iridium, FIrPic, F2IrPic, Ir(difppy)2(pic), sky-blue emission, phosphorescent dopant material..

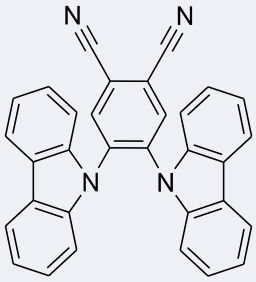
CAS number	376367-93-0
Chemical formula	C28H16F4IrN3O2
Molecular weight	694.66 g/mol
Absorption	λmax 256 nm (DCM)
Fluorescence	λem 468 nm, 535 nm (DCM)
HOMO/LUMO	HOMO = 5.8 eV, LUMO = 3.1 eV [1]
Synonyms	F2Irpic, Ir(diFppy)2(pic) Bis[2-(4,6-difluorophenyl)pyridinato-C2,N](picolinato)iridium(III)
Classification	Phosphorescent blue emitter, Organic light-emitting diodes
Purity	*>99.5% (Sublimed)*
Melting point	*330-335 °C (lit.)*
Appearance	*Yellow powder*



Ir(ppy)2(acac)

bis[2-(2-pyridinyl-N)phenyl-C](acetylacetonato)iridium(III), Ir(ppy)2(acac

CAS number	337526-85-9
Chemical formula	C27H23IrN2O2
Molecular weight	599.70 g/mol
Absorption	λmax 259 in THF
Fluorescence	λem 314 in THF
HOMO/LUMO	HOMO 5.6 eV, LUMO 3.0 eV [1]
Synonyms	(ppy)2Ir(acac) Bis[2-(2-pyridinyl-N)phenyl-C](acetylacetonato)iridium(III) Bis[2-(2-pyridinyl-N)phenyl-C](2,4-pentanedionato-O2,O4)iridium(III)
Classification	Green emitter, phosphorescence dopant OLEDs, OLED and PLED materials,
Purity	*>99.5% (sublimed)*
Melting point	*349-356 °C*
Appearance	*Yellow powder/crystals*

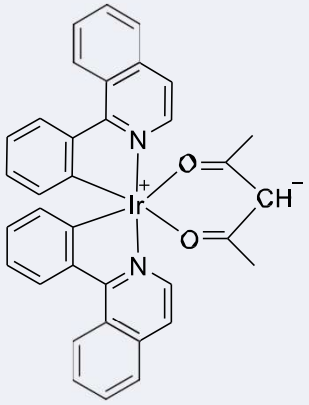


2CzPN

2CzPN, TADF sky blue emitter

4,5-Bis(carbazol-9-yl)-1,2-dicyanobenzene

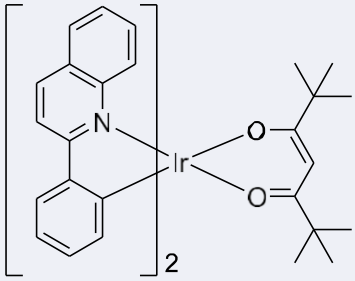
CAS number	1416881-50-9
Full name	4,5-Bis(carbazol-9-yl)-1,2-dicyanobenzene
Chemical formula	C32H18N4
Molecular weight	458.51 g/mol
Absorption	λmax 380 nm in toluene
Fluorescence	λmax 473 nm in toluene
HOMO/LUMO	HOMO = 5.8 eV, LUMO = 3.0 eV; T1 = 2.5 eV
Synonyms	1,2-Bis(carbazol-9-yl)-4,5-dicyanobenzene
Classification	Blue emitting layer materials, Blue phosphorescent host materials, TADF materials.
Purity	*Sublimed > 99% (HPLC)*
Melting point	*340 °C*
Appearance	*Pale yellow crystals/powder*



Ir(piq)$_2$(acac)

Bis(1-phenylisoquinoline)(acetylacetonate)iridium(III), Ir(piq)2(acac), phosphorescent red emitter dopant material

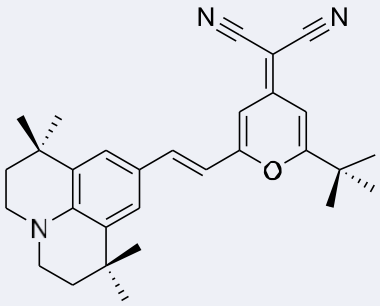
CAS number	435294-03-4
Chemical formula	C35H27IrN2O2
Molecular weight	699.82 g/mol
Absorption	λmax 302 nm in THF
Phosphorescence	λem 633 nm in THF
HOMO/LUMO	HOMO = 5.0 eV, LUMO = 3.0 eV [1]
Synonyms	(piq)2Ir(acac) Bis(1-phenylisoquinoline)(acetylacetonate)iridium(III)
Classification	Phosphorescent red emitter, Red dopant, OLED and PLED materials
Purity	*>99.5% (sublimed)*
Melting point	*366-370 °C (lit.)*
Appearance	*Red powder/crystals*



Ir(dpm)PQ2

Bis(2-phenylquinoline)(2,2,6,6-tetramethylheptane-3,5-dionate)iridium(III), Ir(dpm)PQ2, Ir(PQ)2(tmd), an orange to red phosphorescent emitter.

CAS number	713079-03-9
Full name	Bis(2-phenylquinoline)(2,2,6,6-tetramethylheptane-3,5-dionate)iridium(III)
Chemical formula	C41H39N2O2Ir
Molecular weight	783.98 g/mol
Absorption*	λmax 333 nm in DCM
Fluorescene	λem 595 nm in DCM
HOMO/LUMO	HOMO 5.10 eV, LUMO 3.10 eV [1]
Synonyms	PQ2Ir(dpm), PQ2Ir, Ir(PQ)2(tmd), Bis[2-(2-quinolinyl)phenyl](2,2,6,6-tetramethyl-3,5-heptanedionato)iridium
Classification	TADF-OLEDs, Orange to red phosphorescent dopant materials
Purity	*Sublimed* >99.0%*
Melting point	*TGA >290 °C*
Appearance	*Red powder/crystals*

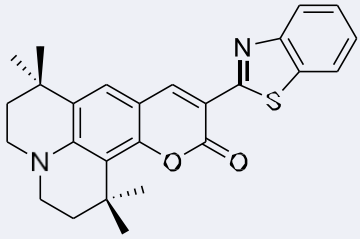


DCJTB, DCM derivate

DCJTB, in red and white OLEDs.

4-(Dicyanomethylene)-2-tert-butyl-6-(1,1,7,7-tetramethyljulolidin-4-yl-vinyl)-4H-pyran

CAS number	200052-70-6
Full name	4-(Dicyanomethylene)-2-tert-butyl-6-(1,1,7,7-tetramethyljulolidin-4-yl-vinyl)-4H-pyran
Chemical formula	C30H35N3O
Molecular weight	453.62 g/mol
Absorption*	λmax 502 nm in THF
Fluorescence	λmax 602 nm in THF
HOMO/LUMO	HOMO = 5.4 eV, LUMO = 3.2 eV [1]
Synonyms	4-(Dicyanomethylene)-2-tert-butyl-6-(1,1,7,7-tetramethyljulolidin-4-yl-vinyl)-4H-pyran, 2-tert-Butyl-4-(dicyanomethylene)-6-[2-(1,1,7,7-tetramethyljulolidin-9-yl)vinyl]-4H-pyran
Classification	Red dopant materials, OLED red emitters, TADF materials.
Purity	*Unsublimed > 98.0% (HPLC)*
Melting point	*521 °C*
Appearance	*Deep red crystals/powder*

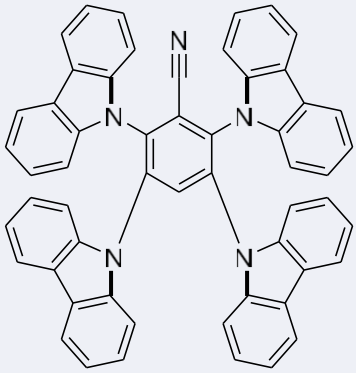


C545T, Coumarin 545T

C545T (Coumarin 545T)

Green-emitting dopant and electron transport host material

CAS number	155306-71-1
Chemical formula	C26H26N2O2S
Molecular weight	430.56 g/mol
Absorption*	λmax 473 nm (in THF)
Fluorescence	λem 506 nm (in THF)
HOMO/LUMO	HOMO = 5.6 eV, LUMO = 3.0 eV [2]
Synonyms	10-(2-Benzothiazolyl)-2,3,6,7-tetrahydro-1,1,7,7-tetramethyl-1H,5H,11H-(1)benzopyropyrano(6,7-8-I,j)quinolizin-11-one, Coumarin 545T
Classification	Electron transport-layer (**ETL**) materials, Green dopant materials, Organic Light-Emitting Diodes (OLEDs), Organic photovoltaics (OPV), Organic electronics, Laser dyes
CAS number	155306-71-1
Purity	*>99% (sublimed*)*
TGA	*228°C*
Colour	*Pale yellow - Yellow powder/crystals*

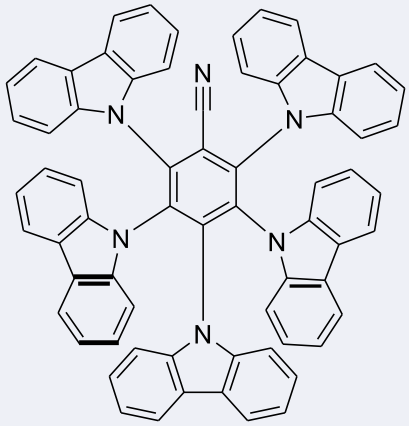


4CzBN

4CzBN, sky-blue TADF fluorescence emitter

2,3,5,6-tetrakis(carbazol-9-yl)benzonitrile

CAS number	n.a.
Full name	2,3,5,6-tetrakis(carbazol-9-yl)benzonitrile
Chemical formula	C55H33N5
Molecular weight	763.9 g/mol
Absorption*	λmax 334 nm, 403 nm in toluene
Fluorescene	λem 443 nm in toluene
HOMO/LUMO	HOMO = 5.79 eV, LUMO = 2.75 eV, T1 = 2.66 eV [1]
Classification / Family	TADF materials, Blue dopant materials
CAS number	n.a.
Purity	*Sublimed >99.0% (1H NMR)*
Melting point	*Td = 455 °C*
Appearance	*Lime-yellow powder/crystals*

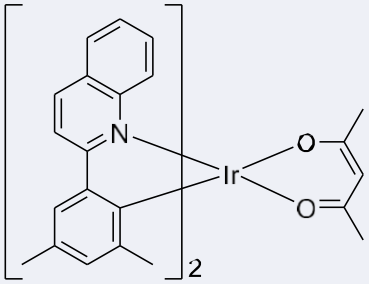


Penta-carbazolylbenzonitrile (5CzBN)

5CzBN, penta-carbazolylbenzonitrile, light-blue TADF fluorescence emitter

2,3,4,5,6-penta(carbazol-9-yl)benzonitrile

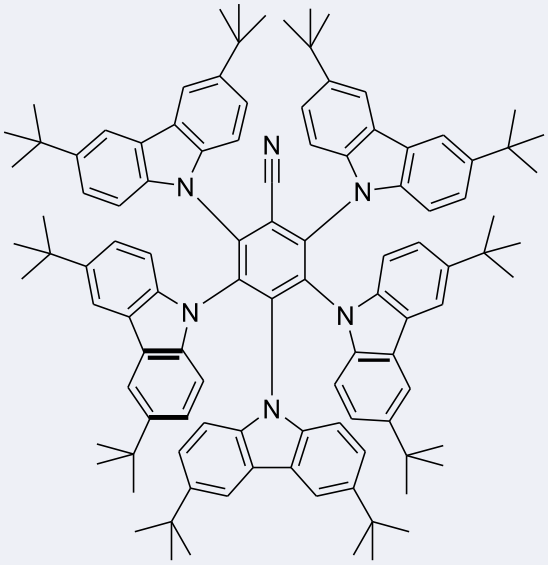
CAS number	1469700-24-0
Full name	2,3,4,5,6-penta(carbazol-9-yl)benzonitrile
Synonyms	5CzCN, 2,3,4,5,6-penta(9H-carbazol-9-yl)benzonitrile
Chemical formula	C67H40N6
Molecular weight	929.1 g/mol
Absorption	λmax 325 nm, 348 nm and 420 nm in DCM
Fluorescene	λem 488 nm in toluene
HOMO/LUMO	HOMO = 5.55 eV, LUMO = 2.74 eV, T1 = 2.68 eV [1]
Classification / Family	TADF materials, Blue dopant materials
Purity	*Sublimed >99.0% (1H NMR)*
Melting point	*Tg = 318 °C (lit.)*
Appearance	*Yellow powder/crystals*



Ir(dmpq)2(acac)

Bis(2-(3,5-dimethylphenyl)quinoline-C,N)(acetylacetonato)iridium(III), Ir(dmpq)2(acac), red phosphorescent emitter

CAS number	1056874-46-4
Chemical formula	C39H35IrN2O2
Molecular weight	755.94 g/mol
Absorption*	λmax 434 nm (in CH2Cl2) [1]
Fluorescence	λem 594 nm (in CH2Cl2)
HOMO/LUMO	HOMO = 5.31 eV, LUMO = 3.26 eV [2]
Synonyms	Bis(2-(3,5-dimethylphenyl)quinoline-C2,N')(acetylacetonato)iridium(III) Ir(mpq)2(acac) Ir(mphq)2(acac)
Classification / Family	Red dopant material, Organic Light-Emitting Diodes (OLEDs), Organic electronics
Purity	*>99.5% (sublimed*)*
Melting point	*n/a*
Appearance	*Dark-red powder/crystals*

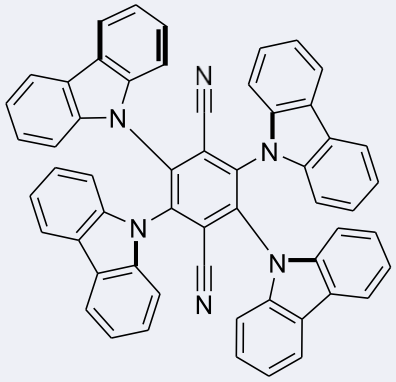


5TCzBN

5TCzBN, sky-blue emitter

2,3,4,5,6-penta(carbazol-9-yl)benzonitrile

CAS number	n.a.
Full name	2,3,4,5,6-pentakis(3,6-di-tert-butyl-9H-carbazol-9-yl)benzonitrile
Chemical formula	C107H120N6
Molecular weight	1490.13 g/mol
Absorption*	λmax 420 nm in toluene
Fluorescene	λem 480 nm in toluene
HOMO/LUMO	HOMO = 5.75 eV, LUMO = 2.74 eV, T1 = 2.60 eV [1]
Classification / Family	TADF materials, Blue dopant materials
Purity	*Sublimed* >99.0% (1H NMR)*
Melting point	*Tg = 325 °C (lit.)*
Appearance	*Yellow powder/crystals*

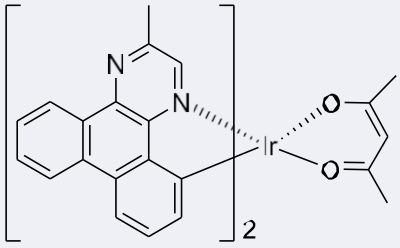


4CzTPN

4CzTPN, 2,3,5,6-tetrakis(carbazol-9-yl)-1,4-dicyanobenzene

green dopant materials

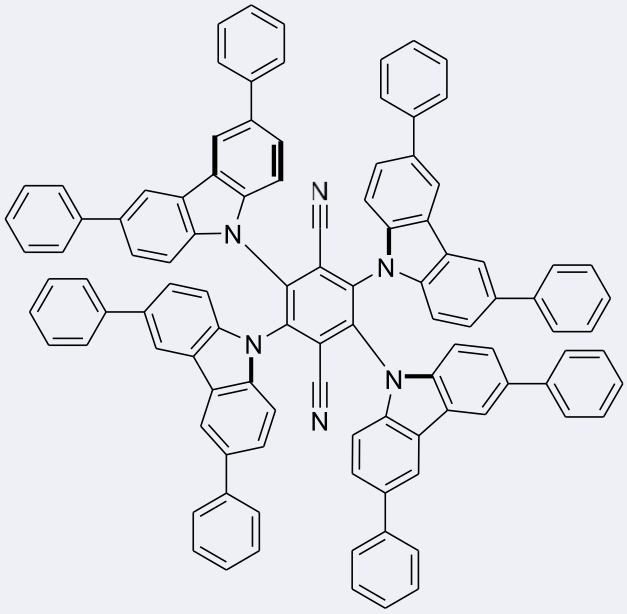
CAS number	1416881-53-2
Full name	2,3,5,6-tetrakis(carbazol-9-yl)-1,4-dicyanobenzene
Chemical formula	C56H32N6
Molecular weight	788.27 g/mol
Absorption	λmax 328, 344, 485 nm in toluene
Fluorescene	λem 538 nm in toluene
HOMO/LUMO	HOMO = 5.73 eV, LUMO = 2.82 eV; T1=2.15 eV [1]
Classification / Family	TADF materials, Green dopant materials
Purity	*Sublimed >99.0% (1H NMR)*
Melting point	*382 °C*
Appearance	*Orange powder/crystals*



Ir(MDQ)2(acac)

Ir(MDQ)2(acac), emit orange-red light
Bis(2-(3,5-dimethylphenyl)quinoline-C2,N')(acetylacetonato)iridium(III)

CAS number	536755-34-7
Full name	Bis(2-methyldibenzo[f,h]quinoxaline)(acetylacetonate) iridium(III)
Chemical formula	C39H29N4O2Ir
Molecular weight	777.89 g/mol
Absorption	λmax 370 nm in DCM
Fluorescence	λmax 608 nm in THF
HOMO/LUMO	HOMO = 5.4 eV, LUMO = 2.8 eV [1]
Classification / Family	Iridium complexes, Phosphorescent red-orange emitter, Sublimed materials, Organic electronics.
Purity	*Sublimed*
Melting point	*n/a*
Appearance	*Red crystals/powder*

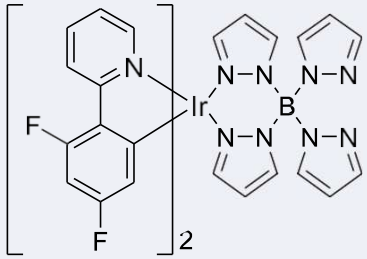


4CzTPN-Ph

4CzTPN-Ph, orange emitting material

2,3,5,6-tetrakis(3,6-diphenylcarbazol-9-yl)-1,4-dicyanobenzene

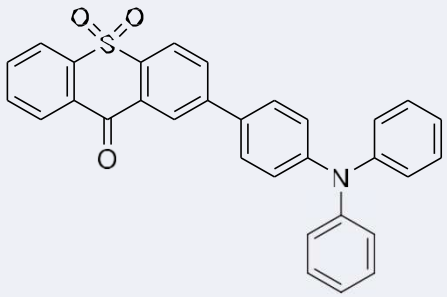
CAS number	1416881-55-4
Full name	2,3,5,6-tetrakis(3,6-diphenylcarbazol-9-yl)-1,4-dicyanobenzene
Synonyms	2,3,5,6-tetrakis(3,6-diphenyl-9H-carbazol-9-yl)terephthalonitrile
Chemical formula	C104H64N6
Molecular weight	1397.66 g/mol
Absorption	λmax 377 nm, 547 nm in toluene
Fluorescene	λem 577 nm in toluene
HOMO/LUMO	HOMO = 5.90 eV, LUMO = 4.0 eV, T1 = 2.21 eV [1]
Classification / Family	TADF materials, Orange dopant materials
Purity	*Sublimed >99.0% (1H NMR)*
Melting point	*n.a.*
Appearance	*Orange powder/crystals*



FIr6

Bis(2,4-difluorophenylpyridinato)-tetrakis(1-pyrazolyl)borate iridium(III), FIr6, a blue emitter material

CAS number	664374-03-2
Full name	Bis(2,4-difluorophenylpyridinato)-tetrakis(1-pyrazolyl)borate iridium(III)
Chemical formula	C34H24N10BF4Ir
Molecular weight	851.64 g/mol
Absorption*	λmax 367 nm in THF
Fluorescene	λem 461 nm in DCM
HOMO/LUMO	HOMO 6.10 eV, LUMO 3.10 eV [1]
Synonyms	Iridium (III) bis(4',6'-difluorophenylpyridinato)tetrakis(1-pyrazolyl)borate
Classification / Family	Organic electronics, TADF-OLEDs, Blue dopant materials, Blue phosphorescent OLED materials
Purity	*Sublimed: >99.0% (HPLC)*
Melting point	*TGA: >280 °C (0.5% weight loss)*
Appearance	*Yellow powder/crystals*

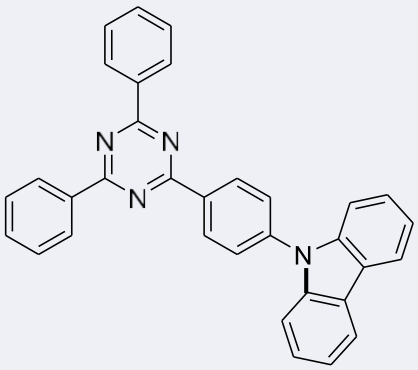


TXO-TPA

TXO-TPA, a red dopant material

2-[4-(diphenylamino)phenyl]-10,10-dioxide-9H-thioxanthen-9-one

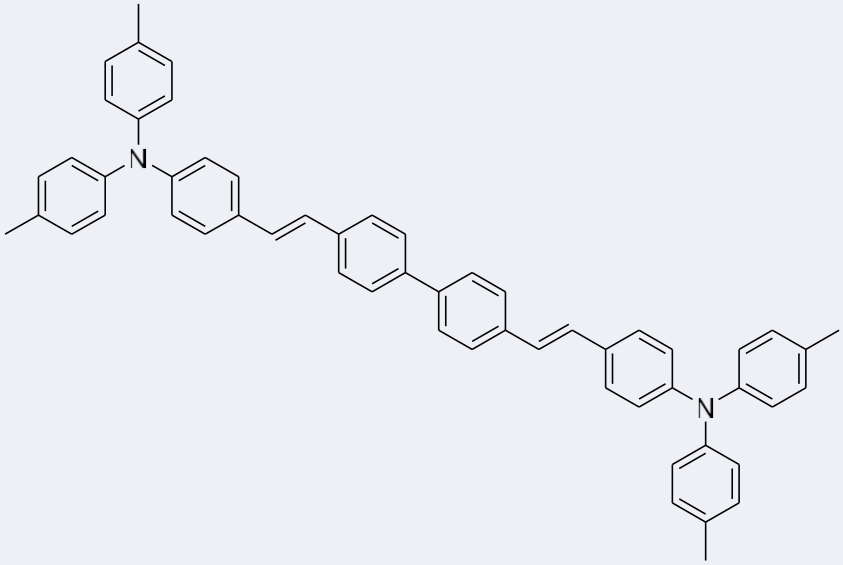
CAS number	1623010-63-8
Full name	2-[4-(diphenylamino)phenyl]-10,10-dioxide-9H-thioxanthen-9-one
Chemical formula	C31H21NO3S
Molecular weight	487.57 g/mol
Absorption	λmax 310, 375 nm in film
Fluorescene	λem 625 nm in film
HOMO/LUMO	HOMO 5.37 eV, LUMO 3.49 eV [1]
Synonyms	9-H-Thioxanthen-9-one-10,10-dioxide-triphenylamine
Classification / Family	Organic electronics, TADF-OLEDs, TADF red dopant materials
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*TGA: >250 °C (0.5% weight loss)*
Appearance	*Orange powder/crystals*



Cab-Ph-TRZ

9-(4-(4,6-Diphenyl-1,3,5-triazin-2-yl)phenyl)-9H -carbazole (Cab-Ph-TRZ), green and red light-emitting diodes.

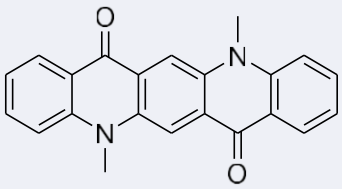
CAS number	440354-93-8
Full name	9-(4-(4,6-Diphenyl-1,3,5-triazin-2-yl)phenyl)-9H -carbazole
Chemical formula	C33H22N4
Molecular weight	474.55 g/mol
Absorption	λmax 262, 356 nm in DCM
Fluorescene	λmax 467 nm in DCM
HOMO/LUMO	HOMO 5.9 eV, LUMO 2.98 eV [1]
Synonyms	CzTRZ, Cz-Ph-TRZ, PhCzTRZ
Classification / Family	Light-emitting diodes, Organic electronics, TADF blue emitter, PHOLEDs host materials
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*TGA: 300 °C*
Appearance	*Off-white powder/crystals*



DPAVBi

DPAVBi, 4,4′ -Bis[4-(di-p-tolylamino)styryl]biphenyl, sky-blue fluorescent emitter

CAS number	119586-44-6
Full name	4,4′-Bis[4-(di-p-tolylamino)styryl]biphenyl
Chemical formula	C56H48N2
Molecular weight	748.99 g/mol
Absorption*	λmax 405 nm in THF
Fluorescence	λmax 474 nm in THF
HOMO/LUMO	HOMO = 5.3 eV, LUMO = 2.6 eV [1]
Synonyms	4,4'-[Biphenyl-4,4'-diyldi(E)ethene-2,1-diyl]bis[N,N-bis(4-methylphenyl)aniline]
Classification / Family	Blue fluorescent emitter and dopant materials, OLED materials
Purity	*Sublimed* > 99% (HPLC)*
Melting point	*> 300 °C*
Appearance	*Greenish-yellow crystals/powder*

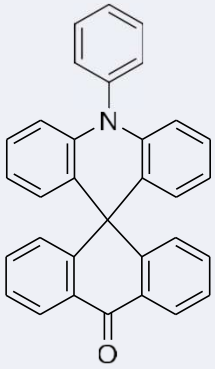


DMQA

N,N'-Dimethylquinacridone (DMQA), green dopant material

5,12-Dihydro-5,12-dimethylquino[2,3-b]acridine-7,14-dione

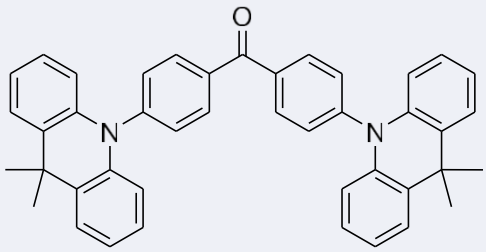
CAS number	19205-19-7
Chemical formula	C22H16N2O2
Molecular weight	340.37 g/mol
Absorption	λmax 294 nm, 510 nm (in THF)
Fluorescence	λem 523 nm (in THF)
HOMO/LUMO	HOMO = 5.35 eV; LUMU = 3.17 eV [1]
Synonyms	N,N'-Dimethylquinacridone 5,12-Dihydro-5,12-dimethylquino[2,3-b]acridine-7,14-dione
Classification / Family	Green dopant materials, OLEDs, Photodetectors, Organic electronics
CAS number	19205-19-7
Purity	*>99% (sublimed)*
Melting point	*286 °C (dec.)(lit.)*
Colour	*Red powder/crystals*



ACRSA

10-phenyl-10H,10'H-spiro[acridine-9,9'-anthracen]-10'-one (ACRSA)

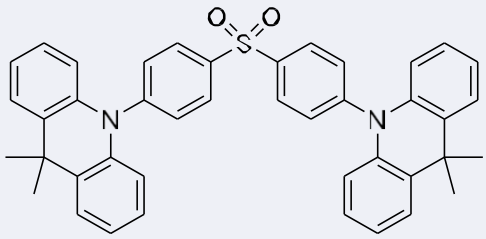
CAS number	1206626-95-0
Chemical formula	C32H21NO
Molecular weight	435.52 g/mol
Absorption*	λmax 430 nm
Fluorescene	λem 490 nm
HOMO/LUMO	ΔEST = 0.03 eV (ES1 = 2.55 eV, ET1 = 2.52 eV) [1]
Synonyms	10-phenyl-10H,10'H-spiro[acridine-9,9'-anthracen]-10'-one
Classification / Family	Acridine derivatives, Greenish blue emitter, Light-emitting diodes, Organic electronics, TADF materials, Sublimed materials.
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*TGA: 290 °C*
Appearance	*Off-white crystals/powder*



DMAC-BP

DMAC-BP, bis[4-(9,9-dimethyl-9,10-dihydroacridine)phenyl]methanone, a green TADF emitter

CAS number	1685287-55-1
Chemical formula	C43H36N2O
Molecular weight	596.76 g/mol
Absorption	n/a
Fluorescence	λem 506 nm (in film)
HOMO/LUMO	HOMO = -5.8 eV, LUMO = -3.1 [1]
Synonyms	Bis[4-(9,9-dimethyl-9,10-dihydroacridine)phenyl]methanone
Classification / Family	Electron transport layer (ETL) materials, Solution-processed OLED materials, TADF green emitter materials, PHOLEDs
Purity	*>99.0% (sublimed)*
Melting Point	*TGA Td = 410 °C*
Appearance	*Light yellow powder/crystals*

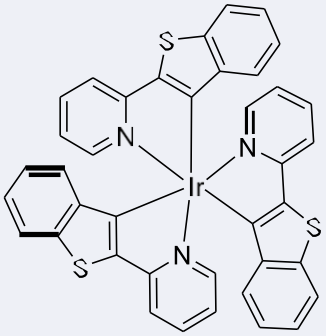


DMAC-DPS

DMAC-DPS, blue emission nature

10,10′-(4,4′-Sulfonylbis(4,1-phenylene))bis(9,9-dimethyl-9,10-dihydroacridine

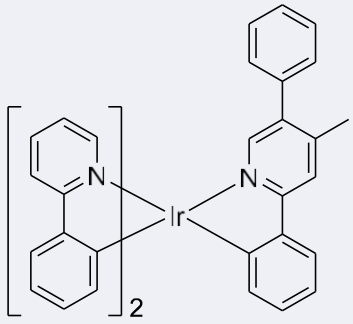
CAS number	1477512-32-5
Full name	10,10′-(4,4′-Sulfonylbis(4,1-phenylene))bis(9,9-dimethyl-9,10-dihydroacridine
Chemical formula	C42H36N2O2S
Molecular weight	632.81 g/mol
Absorption	λmax 286 nm in Toluene
PL	λem 469 nm in Toluene
HOMO/LUMO	HOMO = 5.92 eV, LUMO = 2.92 eV; T1=2.91 eV[1]
Synonyms	DMAC-DPS
Classification / Family	Blue emitter, TADF blue host materials, Phosphorescent organic light-emitting devices (PHOLEDs)
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*310 °C*
Appearance	*Pale yellow powder/crystals*



Ir(btpy)3

Tris(2-(benzo[b]thiophen-2-yl)pyridineiridium, Ir(btpy)3, red phosphorescent emitter

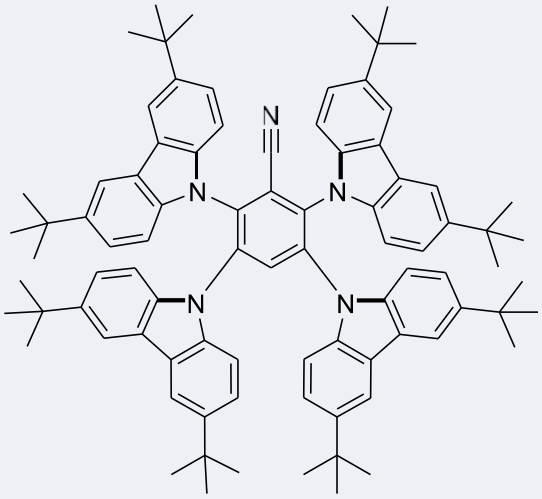
CAS number	405289-74-9
Chemical formula	C39H24IrN3S3
Molecular weight	823.08 g/mol
Absorption	λmax 292, 366, 408 nm in THF
Fluorescence	λem 596, 645 nm in THF
HOMO/LUMO	HOMO 5.08 eV; LUMO 2.67 eV [1]
Synonyms	Tris(2-(benzo[b]thiophen-2-yl)pyridineiridium(III); Tris[2-(benzo[b]thiophen-2-yl)pyridinato-C3,N]iridium(III) fac-Tris[2-(benzo[b]thiophen-2-yl)pyridinato-C3,N]iridium(III) fac-Ir(btpy)3, Tris(2-(benzo[b]thiophen-2-yl)pyridineiridium(III)
Classification / Family	phosphorescent red emitter, phosphorescence dopant OLEDs
Purity	*>99.0% (sublimed)*
Melting point	*> 300 °C*
Colour	*1856*



Ir(ppy)2(bpmp)

[2-(4-methyl-5-phenyl-2-pyridinyl-κN)phenyl-κC]bis[2-(2-pyridinyl-κN)phenyl-κC] Iridium, Ir(ppy)2(bpmp), green emitter.

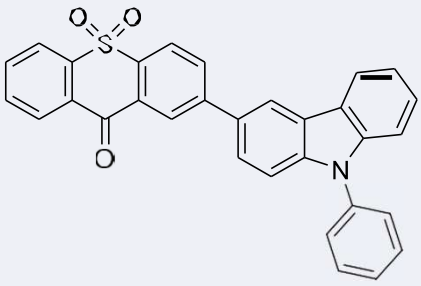
CAS number	1215692-34-4
Chemical formula	C40H30IrN3
Molecular weight	744.90 g/mol
Absorption	λmax = 212 nm, 244 nm, 285 nm
Fluorescence	λem = 518.6 nm
HOMO/LUMO	No data available
Synonyms	[2-(4-methyl-5-phenyl-2-pyridinyl-κN)phenyl-κC]bis[2-(2-pyridinyl-κN)phenyl-κC] Iridium
Classification / Family	Phosphorescent green emitter, OLEDs
Purity	*>99.5% (sublimed)**
Melting point / Thermal analysis	*Thermal Gravimetric Analysis (TGA): 423.9 °C (5% weight loss)* *Differential Scanning Calorimetry (DSC): 407.4 °C*
Colour	*Yellow powder/crystals*



4TCzBN

4TCzBN in white or blue highly efficient TADF-OLED devices

CAS number	2055722-93-3
Full name	2,3,5,6-Tetrakis(3,6-di-tert-butyl-9H-carbazol-9-yl)benzonitrile
Synonyms	2,3,5,6-Tetrakis[3,6-bis(1,1-dimethylethyl)-9H-carbazol-9-yl]benzonitrile
Chemical formula	C87H97N5
Molecular weight	1212.73 g/mol
Absorption	λmax 295 nm, 345 nm and 417 nm in toluene
Fluorescene	λem 483 nm in toluene
HOMO/LUMO	HOMO = 5.48 eV, LUMO = 2.73 eV, T1 = 2.60 eV [1]
Classification / Family	TADF materials, Blue dopant materials
Purity	*Sublimed >99.0% (1H NMR)*
Melting point	*Tg = 322 °C (lit.)*
Appearance	*Yellow powder/crystals*

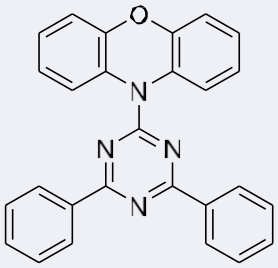


TXO-PhCz

TXO-PhCz, TADF green emitter

2-phenyl-4'-carbazole-9H-thioxanthen-9-one-10,10-dioxide

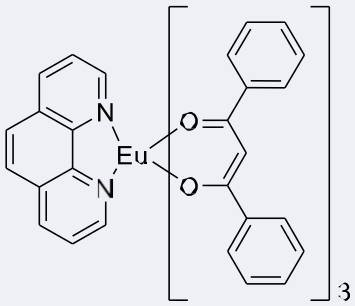
CAS number	1623010-64-9
Chemical formula	C31H19NO3S
Molecular weight	485.55g/mol
Absorption	λmax396 nm (in toluene)
Fluorescene	λem522 nm(in toluene)
HOMO/LUMO	HOMO = 5.78 eV, LUMO = 3.58 eV [1]
Full chemical name	2-phenyl-4'-carbazole-9H-thioxanthen-9-one-10,10-dioxide
Synonyms	TXO-PhCz
Classification / Family	TADF green emitter materials, Phosphorescent organic light-emitting devices (PHOLEDs)
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*TGA: 350 °C*
Appearance	*Yellow powder/crystals*



Phen-TRZ

Phen-TRZ, 2-(10H-Phenoxazine-10-yl)-4,6-diphenyl-1,3,5-triazine, light blue TADF emitter

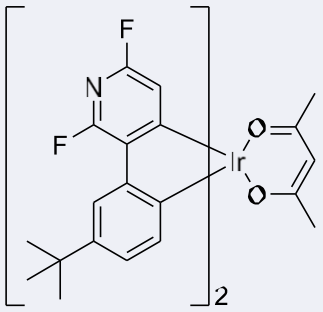
CAS number	1357066-21-7
Chemical formula	C27H18N4O
Molecular weight	414.46 g/mol
Absorption	λmax 307 nm (in DCM)
Fluorescene	λem 497 nm (in DCM)
HOMO/LUMO	n.a.
Full chemical name	2-(10H-Phenoxazine-10-yl)-4,6-diphenyl-1,3,5-triazine
Synonyms	DPhPXZT
Classification / Family	TADF blue emitters
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*TGA: 308 °C*
Appearance	*Bluish green powder/crystals*



Eu(dbm)3(Phen)

Eu(dbm)3(Phen) - tris(dibenzoylmethane)phenanthroline europium(III), red-orange phosphorescence emission

CAS number	17904-83-5
Full name	Tris(dibenzoylmethane)phenanthroline europium(III)
Chemical formula	C57H41N2O6Eu
Molecular weight	1001.93 g/mol
Absorption	λmax 257 nm, 355 nm in THF
Fluorescence	λem 615 nm in THF
HOMO/LUMO	HOMO = 5.22 eV, LUMO = 2.93 eV [1]
Synonyms	Tris(dibenzoylmethane) mono(1,10-phenanthroline)europium(lll)
Classification / Family	Organic electronics, Red dopant
Purity	*Sublimed: >99.0% (HPLC)*
Melting point	*Mp (onset) =199°C (DTA), TGA: 234.6 °C (0.5% weight loss)*
Appearance	*Yellow powder/crystals*

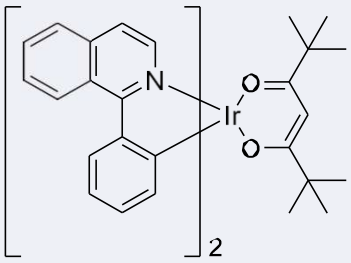


FK306

FK306, Bis[4-tert -butyl-2',6'-difluoro-2,3'-bipyridine](acetylacetonate)iridium(III)

blue phosphorescent emitter

CAS number	1421058-47-0
Chemical formula	C33H33F4IrN4O2
Molecular weight	785.85 g/mol
Absorption	λmax 244 nm (dichloromethane)
Photoluminescence	λem 454 nm (dichloromethane)
HOMO/LUMO	HOMO = 6.3 eV, LUMO = 3.6 eV; ET = 2.83 eV[1]
Chemical name	Bis[4-tert -butyl-2',6'-difluoro-2,3'-bipyridine](acetylacetonate)iridium(III)
Synonyms	Iridium(Ⅲ)bis(4-(tert-butyl)-2,6-diuoro-2,3-bipyridinne)acetylacetonate
Classification / Family	Blue phosphorescent materials, Blue dopant materials, **Electron transport materials**
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*280 °C*
Appearance	*Yellow powder/crystals*

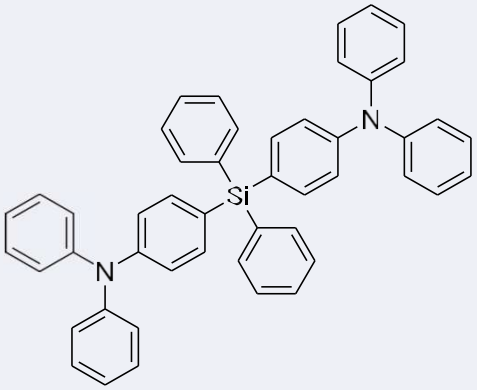


Ir(dpm)(piq)2

Ir(dpm)(piq)2, bis(phenylisoquinoline)(2,2,6,6-tetramethylheptane-3,5-dionate) iridium(III)

deep red emitting phosphorescent dopant

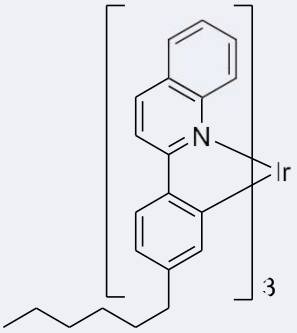
CAS number	1202867-58-0
Chemical formula	C41H39IrN2O2
Molecular weight	783.98 g/mol
Absorption	λmax 354, 479 nm (in DCM)
Photoluminescence	λem 628 nm (in DCM)
HOMO/LUMO	ET = 2.07 eV [1]
Chemical name	Bis(phenylisoquinoline)(2,2,6,6-tetramethylheptane-3,5-dionate) iridium(III)
Synonyms	Ir(piq)2(tmd), Piq2Ir(dpm), Bis[2-(1-isoquinolinyl)phenyl](2,2,6,6-tetramethyl-3,5-heptanedionato)iridium
Classification / Family	TADF-OLEDs, Panchromatic photoinitiating systems, Red phosphorescent dopant material
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*TGA > 310 °C*
Appearance	*Red powder/crystals*



TSBPA

4,4'-(Diphenylsilanediyl)bis(N,N-diphenylaniline) (TSBPA), hole transport material for blue phosphorescent

CAS number	205327-13-5
Chemical formula	C48H38N2Si
Molecular weight	670.91 g/mol
Absorption	λmax 309 nm in DCM
Fluorescene	λem 376 nm in DCM
HOMO/LUMO	HOMO = 5.51 eV, LUMO = 2.30 eV, ET =2.9 eV [1]
Full chemical name	4,4'-(Diphenylsilanediyl)bis(N,N-diphenylaniline)
Synonyms	TSBPA
Classification / Family	Hole transport layer (**HTL**), Electron blocking layer (EBL), TADF exciplex materials, Phosphorescent organic light-emitting diodes (PHOLEDs)
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*mp = 213 °C, Tg = 84 °C*
Appearance	*White powder/crystals*

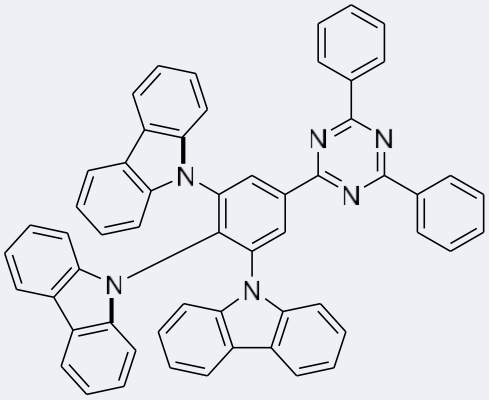


Hex-Ir(phq)3

Hex-Ir(phq)3, tris[2-(4-n-hexylphenyl)quinoline)]iridium(III),

phosphorescent orange to red emitting

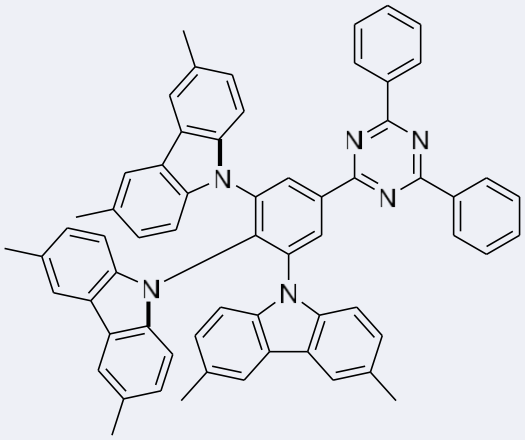
CAS number	1268460-37-2
Chemical formula	C63H66IrN3
Molecular weight	1057.43 g/mol
Absorption	λmax 323 nm (dichloromethane)
Photoluminescence	λem 583 nm (dichloromethane)
HOMO/LUMO	HOMO = 4.9 eV, LUMO = 2.8 eV [1]
Chemical name	Tris[2-(4-n-hexylphenyl)quinoline)]iridium(III)
Synonyms	Hex-Ir(phq)3
Classification / Family	Orange to red phosphorescent materials, Blue dopant materials, **Electron transport materials**
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*> 260 °C (0.5% weight loss)*
Appearance	*Red powder/crystals*



TCzTRZ

TCzTRZ - 9,9',9''-(5-(4,6-Diphenyl-1,3,5-triazin-2-yl)benzene-1,2,3-triyl) tris(9H-carbazole), TADF sky blue emitter

CAS number	1808158-40-8
Full name	9,9',9''-(5-(4,6-Diphenyl-1,3,5-triazin-2-yl)benzene-1,2,3-triyl) tris(9H-carbazole)
Chemical formula	C57H36N6
Molecular weight	804.94 g/mol
Absorption	λmax 377 nm (in toluene)
Phosphorescene	λmax 477 nm (in toluene)
HOMO/LUMO	HOMO 5.40 eV, LUMO 2.18 eV [1]
Synonyms	TCz-TRZ
Classification / Family	Light-emitting diodes, Organic electronics, TADF blue emitter, PHOLEDs host material
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*Tg = 188.7 ℃, Tm = 381.5 ℃, Td (Temperature at 5% weight loss) = 431.8 ℃.*
Appearance	*Pale yellow powder/crystals*

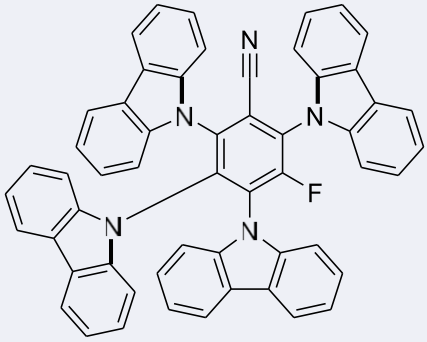


TmCzTRZ

TmCzTRZ, 9,9',9''-(5-(4,6-Diphenyl-1,3,5-triazin-2-yl)benzene-1,2,3-triyl) tris(3,6-dimethyl-9H-carbazole

TADF green emitter

CAS number	1808158-41-9
Full name	9,9',9''-(5-(4,6-Diphenyl-1,3,5-triazin-2-yl)benzene-1,2,3-triyl) tris(3,6-dimethyl-9H-carbazole)
Chemical formula	C63H48N6
Molecular weight	889.10 g/mol
Absorption	λmax 447 nm (in toluene)
Phosphorescene	λmax 500 nm (in film)
HOMO/LUMO	HOMO = 5.19 eV, LUMO = 2.11 eV [1]
Synonyms	TmCz-TRZ
Classification / Family	Light-emitting diodes, Organic electronics, TADF green emitter, PHOLEDs host materials
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*Tg = 205.0 ℃, Tm = 427.9 ℃, Td (Temperature at 5% weight loss) = 436.1 ℃.*
Appearance	*Deep yellow powder/crystals*

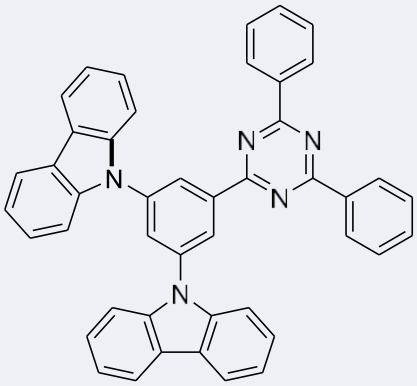


4CzFCN

4CzFCN, 2,3,4,6-Tetra(9H-carbazol-9-yl)-5-fluorobenzonitrile,

green emitting

CAS number	1819362-10-1
Full name	2,3,4,6-Tetra(9H-carbazol-9-yl)-5-fluorobenzonitrile
Chemical formula	C55H32FN5
Molecular weight	781.87 g/mol
Absorption*	λmax 307 nm in THF
Fluorescene	λem 471 nm in film
HOMO/LUMO	HOMO = 6.31 eV, LUMO = 3.49 eV [1]
Synonyms	2,3,4,6-tetrakis(9H-carbazole-9-yl)−5-fluorobenzonitrile
Classification / Family	TADF blue emitter materials, Phosphorescent organic light-emitting devices (PHOLEDs)
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*Tg = 179 ℃*
Appearance	*Deep yellow powder/crystals*

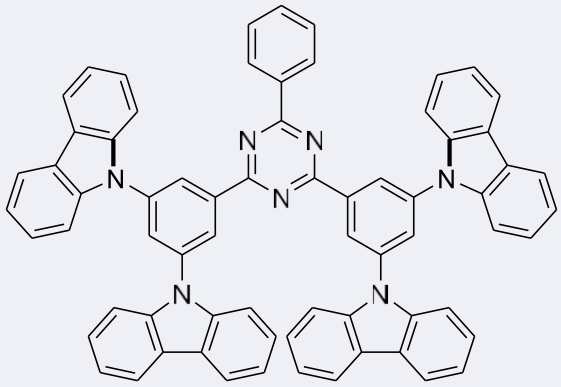


DCzTRZ

DCzTRZ, blue dopant material

9,9'-(5-(4,6-Diphenyl-1,3,5-triazin-2-yl)-1,3-phenylene)bis(9H-carbazole)

CAS number	1106730-48-6
Full name	9,9'-(5-(4,6-Diphenyl-1,3,5-triazin-2-yl)-1,3-phenylene)bis(9H-carbazole)
Chemical formula	C45H29N5
Molecular weight	639.75 g/mol
Absorption	λmax 337 nm (in toluene)
Phosphorescene	λmax 449 nm (in toluene)
HOMO/LUMO	HOMO = 5.88 eV, LUMO = 2.86 eV [1]
Synonyms	9-(3-(9H-Carbazol-9-yl)-5-(4,6-diphenyl-1,3,5-triazin-2-yl)phenyl)-9H-carbazole
Classification / Family	Light-emitting diodes, Organic electronics, TADF blue emitter, Exciplex green emitter
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*Tg = 160 ℃, Td (Temperature at 5% weight loss) = 397 ℃.*
Appearance	*Pale yellow powder/crystals*

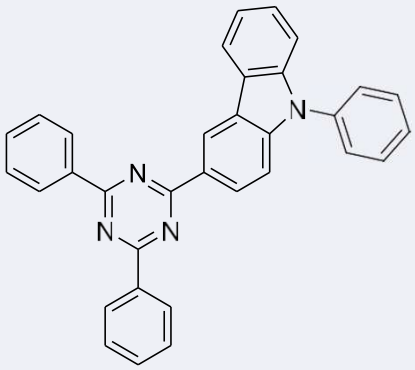


DDCzTRZ

DDCzTRZ

9,9',9'',9'''-((6-Phenyl-1,3,5-triazine-2,4-diyl)bis(benzene-5,3,1-triyl))tetrakis(9H -carbazole)

CAS number	1685282-47-6
Full name	9,9',9'',9'''-((6-Phenyl-1,3,5-triazine-2,4-diyl)bis(benzene-5,3,1-triyl))tetrakis(9H -carbazole)
Chemical formula	C69H43N7
Molecular weight	970.13 g/mol
Absorption	λmax 337 nm (in toluene)
Phosphorescene	λmax 461 nm (in toluene)
HOMO/LUMO	HOMO = 6.01 eV, LUMO = 2.90 eV [1]
Synonyms	9-(3-(4-(3,5-Di(9H-carbazol-9-yl)phenyl)-6-phenyl-1,3,5-triazin-2-yl)-5-(9H-carbazol-9-yl)phenyl)-9H-carbazole
Classification / Family	Light-emitting diodes, Organic electronics, TADF blue emitter, Exciplex green emitter
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*Tg = 218 ℃, Td (Temperature at 5% weight loss) = 493 ℃.*
Appearance	*Pale yellow powder/crystals*

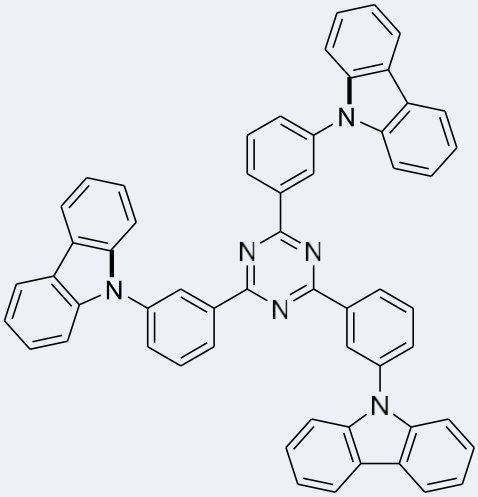


DPTPCz

3-(4,6-Diphenyl-1,3,5-triazin-2-yl)-9-phenyl-9H-carbazole (DPTPCz)

blue, green and red light-emitting diodes

CAS number	1313391-57-9
Full name	3-(4,6-Diphenyl-1,3,5-triazin-2-yl)-9-phenyl-9H-carbazole
Chemical formula	C33H22N4
Molecular weight	474.55 g/mol
Absorption	λmax 305, 353 nm in Ethyl acetate
Fluorescene	λmax 416 nm in Ethyl acetate
HOMO/LUMO	HOMO 5.69 eV, LUMO 2.76 eV, ET = 2.78 eV[1]
Synonyms	DPTPCz
Classification / Family	Bipolar host materials, PHOLEDs host materials
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*Tg = 86* ℃
Appearance	*White powder/crystals*

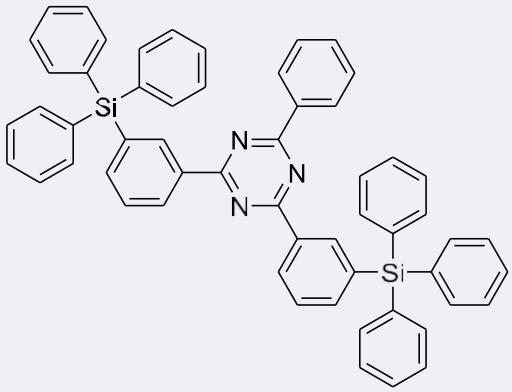


TCPZ

TCPZ - 2,4,6-Tris(3-(9H-carbazol-9-yl)phenyl)-1,3,5-triazine

deep-red, green and blue PhOLEDs

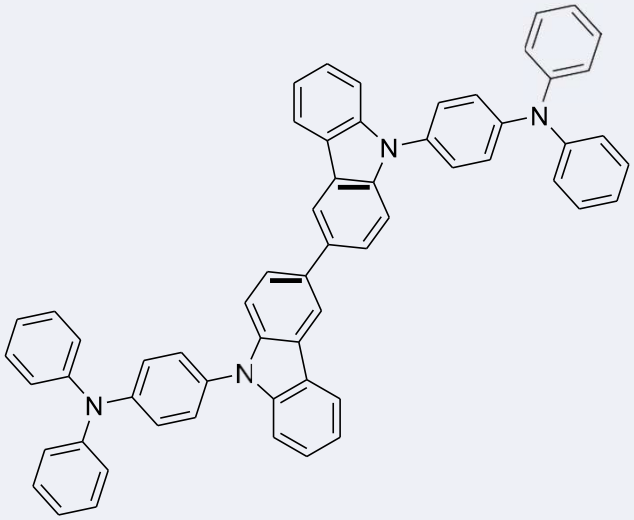
CAS number	890148-68-2
Full name	2,4,6-Tris(3-(9H-carbazol-9-yl)phenyl)-1,3,5-triazine
Chemical formula	C57H36N6
Molecular weight	804.94 g/mol
Absorption	λmax 283, 296 nm in film
Fluorescene	λmax 467 nm in film
HOMO/LUMO	HOMO 6.18 eV, LUMO 2.95 eV[1]
Synonyms	2,4,6-Tris(3-(carbazol-9-yl)phenyl)triazine
Classification / Family	Bipolar host materials, PHOLEDs host materials
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*Tg = 162* ℃
Appearance	*Yellow powder/crystals*



mSiTrz

mSiTrz - 2-Phenyl-4,6-bis(3-(triphenylsilyl)phenyl)-1,3,5-triazine

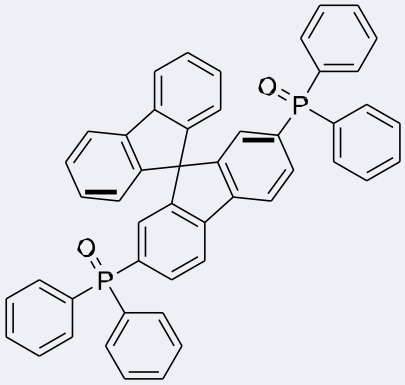
CAS number	2252416-90-1
Chemical formula	C57H43N3Si2
Molecular weight	826.14 g/mol
Absorption	λmax 274 nm
Photoluminescence	λem 393 nm
HOMO/LUMO	HOMO = 6.9 eV, LUMO = 2.79 eV; ET = 3.08 eV [1]
Chemical name	2-Phenyl-4,6-bis(3-(triphenylsilyl)phenyl)-1,3,5-triazine
Synonyms	mSiTrz
Classification / Family	Phosphorescent host materials, Semiconducting small molecules
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*Tg = 108.21 °C (lit.)*
Appearance	*White powder/crystals*



BCzTPA

BCzTPA - 4,4'-(9H,9'H-3,3'-Bicarbazole-9,9'-diyl)bis(N,N-diphenylaniline)

CAS number	1032174-52-9
Full name	4,4'-(9H,9'H-3,3'-Bicarbazole-9,9'-diyl)bis(N,N-diphenylaniline)
Chemical formula	C60H42N4
Molecular weight	819.00 g/mol
Absorption	λmax 310nm, 341 nm (in film)
Phosphorescene	λmax 397 nm (in film)
HOMO/LUMO	HOMO 5.60 eV, LUMO 2.20 eV [1]
Synonyms	4,4'-[3,3'-bi-9H-carbazole]-9,9'-diylbis[N,N-diphenyl-benzenamine]
Classification / Family	TADF Light-emitting diodes, Organic electronics, Hole transport Layer (ETL), PHOLEDs host materials
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*Tg = 157 °C, Tm = 239 °C*
Appearance	*White powder/crystals*

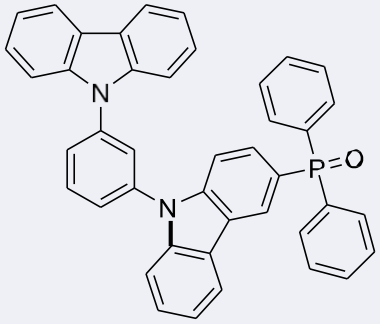


SPPO13

SPPO13, 2,7-Bis(diphenylphosphoryl)-9,9'-spirobifluorene,

electron transporting material. for blue, green and red phosphors

CAS number	1234510-13-4
Full name	2,7-Bis(diphenylphosphoryl)-9,9'-spirobifluorene
Chemical formula	C49H34O2P2
Molecular weight	716.74 g/mol
Absorption	λmax 282 nm (in DCM)
Phosphorescene	λmax 373 nm (in DCM)
HOMO/LUMO	HOMO 5.90 eV, LUMO 2.60 eV [1]
Synonyms	9,9'-spirobi[fluorene]-2,7-diylbis(diphenylphosphine oxide)
Classification / Family	TADF Light-emitting diodes, Organic electronics, Electron transport Layer (ETL), PHOLEDs cohost materials
Purity	*>99.0% (HPLC)*
Melting point	*Tg = 123°C*
Appearance	*White powder/crystals*

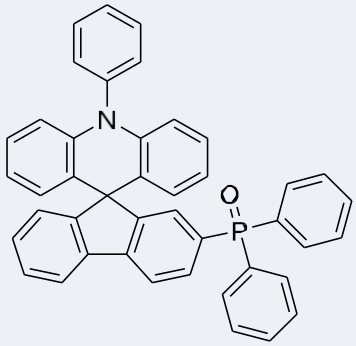


mCPPO1

mCPPO1, 9-(3-(9H-Carbazol-9-yl)phenyl)-3-(diphenylphosphoryl)-9H-carbazole,

for blue, green and red organic light emitting diodes.

CAS number	1296229-26-9
Full name	9-(3-(9H-Carbazol-9-yl)phenyl)-3-(diphenylphosphoryl)-9H-carbazole
Chemical formula	C42H29N2OP
Molecular weight	608.67 g/mol
Absorption	λmax 324 nm, 338 nm (in DCM)
Phosphorescene	λmax 361 nm (in DCM)
HOMO/LUMO	HOMO 6.13 eV, LUMO 2.64 eV [1]
Synonyms	[9-[3-(9H-Carbazol-9-yl)phenyl]-9H-carbazol-3-yl]diphenylphosphine oxide
Classification / Family	TADF Light-emitting diodes, Organic electronics, PHOLEDs host materials
Purity	*>99.0% (HPLC)*
Melting point	*Tg = 114.7 °C*
Appearance	*White powder/crystals*

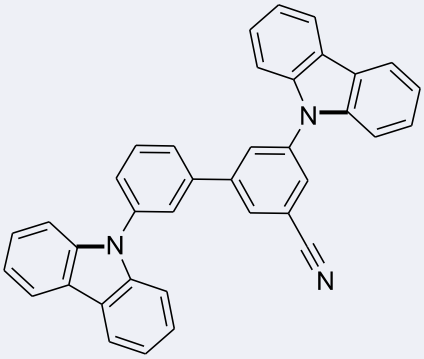


POSTF

POSTF, 2'-(Diphenylphosphoryl)-10-phenyl-10H-spiro[acridine-9,9'-fluorene],

For blue, green and red phosphorescence devices

CAS number	1647050-25-6
Full name	2'-(Diphenylphosphoryl)-10-phenyl-10H-spiro[acridine-9,9'-fluorene]
Chemical formula	C43H30NOP
Molecular weight	607.68 g/mol
Absorption	λmax 280 nm, 325 nm (in DCM)
Phosphorescene	λmax 430 nm (in DCM)
HOMO/LUMO	HOMO = 5.57 eV, LUMO = 2.12 eV [1]
Synonyms	Diphenyl(10-phenyl-10H-spiro[acridine-9,9'-fluoren]-2'-yl)phosphine oxide
Classification / Family	Light-emitting diodes, Bipolar host, TADF host materials
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*Tg = 160 ℃, Td (Temperature at 5% weight loss) = 356 ℃.*
Appearance	*White powder/crystals*

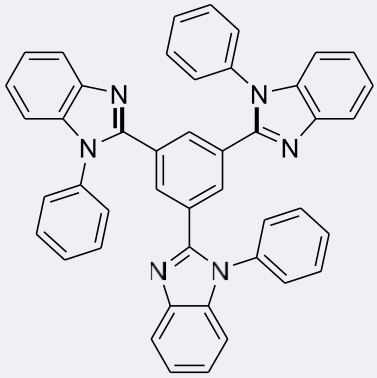


mCBP-CN

mCBP-CN, 3,3′-di(carbazol-9-yl)-5-cyano-1,1′-biphenyl,

CAS number	n.a.
Full name	3,3′-di(carbazol-9-yl)-5-cyano-1,1′-biphenyl
Chemical formula	C37H23N3
Molecular weight	509.60 g/mol
Absorption	λmax 326 nm, 335 nm in film
PL	λem 412 nm in film
HOMO/LUMO	HOMO = 6.10 eV, LUMO = 2.50 eV [1]
Synonyms	mCBPCN, 3′,5-di(9H-carbazol-9-yl)-[1,1′-biphenyl]-3-carbonitrile
Classification / Family	Fluorescent and phosphorescent host materials
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*mp = 256 °C, Tg = 113 °C*
Appearance	*Pale White powder/crystals*

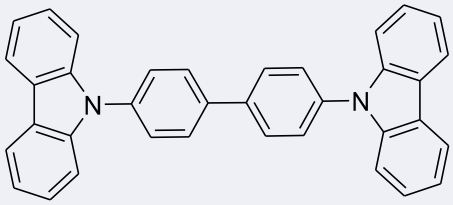
OLED HOST MATERIALS



TPBi

2,2',2''-(1,3,5-Benzinetriyl)-tris(1-phenyl-1-H-benzimidazole), TPBi, electron transport layer material

CAS number	192198-85-9
Chemical formula	C45H30N6
Molecular weight	408.49 g/mol
Absorption	λmax 305 nm in THF
Fluorescence	λem 370 nm in THF
HOMO/LUMO	HOMO 6.2/6.7 eV, LUMO 2.7 eV [1, 2]
Synonyms	2,2',2''-(1,3,5-Benzinetriyl)-tris(1-phenyl-1-H-benzimidazole)
Classification / Family	Electron transport layer materials (ETL), Electron injection layer materials (EIL), Hole blocking layer materials (HBL), Fluorescent and phosphorescent host materials. Light-Emitting Diodes, Organic electronics
Purity	*Sublimed* >99.5%*
Melting point	*272 - 277 °C (lit.)*
Colour	*White Powder*

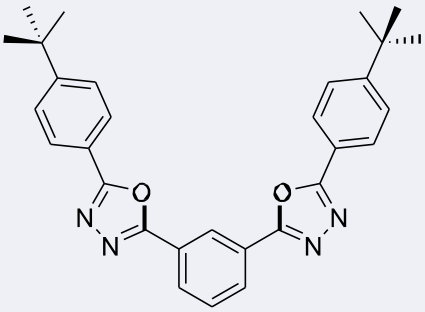


CBP, 4,4′-Bis(N-carbazolyl)-1,1′-biphenyl

4,4′-Bis(N-carbazolyl)-1,1′-biphenyl (CBP),

green, yellow and red phosphorescent emitters

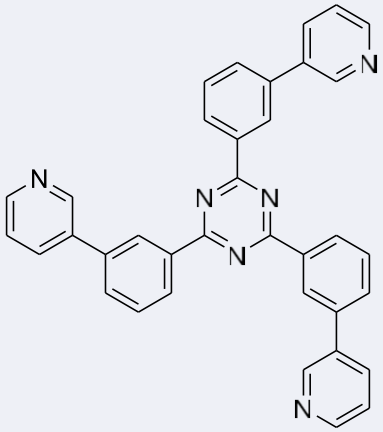
CAS number	58328-31-7
Chemical formula	C36H24N2
Molecular weight	484.59 g/mol
HOMO/LUMO	HOMO 6.0 eV, LUMO 2.9 eV
Synonyms	CBP, 4,4′-Bis(9-carbazolyl)-1,1′-biphenyl 4,4-N,N′-Dicarbazole-1,1′-biphenyl DCBP
Classification / Family	Hole-injection layer materials, **Hole transport layer** materials, Hole blocking layer materials, Phosphorescent host materials, Light-emitting fiodes
Purity	*> 99.5% (sublimed)*
Melting point	*281-285 (lit.) °C*
Appearance	*White powder*



OXD-7

1,3-bis[2-(4-tert-butylphenyl)-1,3,4-oxadiazo-5-yl]benzene (OXD-7), electron-transporting material

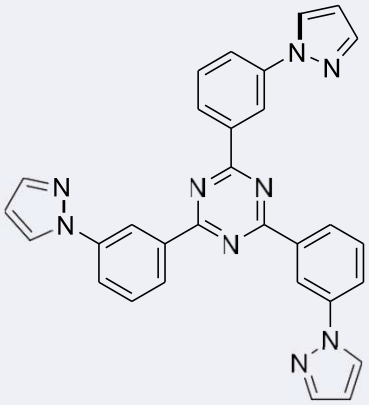
CAS number	138372-67-5
Chemical formula	C30H30N4O2
Molecular weight	478.58 g/mol
Absorption	λmax 292 (THF)
Fluorescence	λem 347 nm (THF)
HOMO/LUMO	HOMO = 6.5 eV, LUMO = 3.0 eV
Synonyms	1,3-Bis[2-(4-tert-butylphenyl)-1,3,4-oxadiazo-5-yl]benzene 1,3-Bis[5-(4-tert-butylphenyl)-2-[1,3,4]oxadiazolyl]benzene
Classification / Family	Electron-injection materials, Electron transporting materials, Phosphorescent host materials, Organic light-emitting diodes
Purity	*> 99.0% (sublimed)*
Melting point	*241 °C (lit.)*
Colour	*White powder/crystals*



3N-T2T

3N-T2T, electron transport host materials

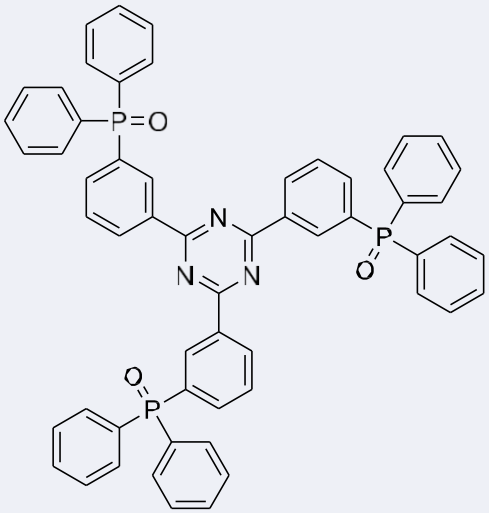
CAS number	n.a.
Chemical formula	C36H24N6
Molecular weight	540.63 g/mol
Absorption	λmax 275 nm
Fluorescene	λem 357, 375 nm
HOMO/LUMO	HOMO = 6.77 eV, LUMO = 2.7 eV [1]
Chemical name	2,4,6-Tris(3-(2-pyridyl)phenyl)-1,3,5-triazine
Synonyms	3N-T2T
Classification / Family	TADF exciplex host materials, Phosphorescent host materials
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*TGA: >300 °C (0.5% weight loss)*
Appearance	*Off-white powder/crystals*



3P-T2T

3P-T2T, 2,4,6-tris(2-(1H-pyrazol-1-yl)phenyl)-1,3,5-triazine, electron transport layer (ETL)

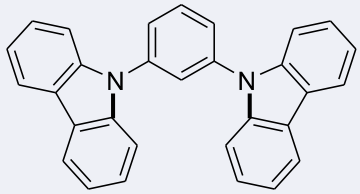
CAS number	352196-01-1
Chemical formula	C30H21N9
Molecular weight	507.56 g/mol
Absorption	λmax 267 nm (in film)
Fluorescene	λem 415 nm (in film)
HOMO/LUMO	HOMO = 6.43 eV, LUMO = 2.98 eV [1]; ET= 2.85 eV
Full chemical name	2,4,6-tris(2-(1H-pyrazol-1-yl)phenyl)-1,3,5-triazine
Synonyms	3P-T2T
Classification / Family	TADF exciplex co-host, Phosphorescent organic light-emitting devices (PHOLEDs), Phosphorescent host, Electron transporting layer (ETL)
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*Td = 352 °C, Tg = 64 °C (lit.)*
Appearance	*Off-white powder/crystals*



PO-T2T

PO-T2T, 2,4,6-tris[3-(diphenylphosphinyl)phenyl]-1,3,5-triazineis

CAS number	1646906-26-4
Chemical formula	C57H42N3O3P3
Molecular weight	909.80 g/mol
Absorption	λmax272 nm (in DCM)
Fluorescene	λem295 nm, 378 nm(in DCM)
HOMO/LUMO	HOMO = 7.55 eV, LUMO = 3.50 eV [1]; ET= 2.99 eV
Full chemical name	2,4,6-Tris[3-(diphenylphosphinyl)phenyl]-1,3,5-triazine
Synonyms	PO-T2T
Classification / Family	TADF exciplex co-host, Phosphorescent organic light-emitting devices (PHOLEDs), TADF phosphorescent host, Electron transport layer materials
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*TGA 460 °C*
Appearance	*Off-white powder/crystals*

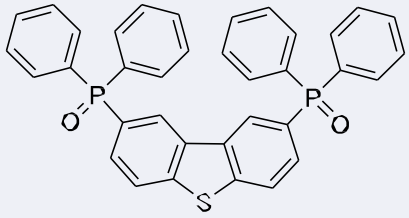


mCP

1,3-Bis(N-carbazolyl)benzene

blue phosphorescent

CAS number	550378-78-4
Chemical formula	C30H20N2
Molecular weight	408.49 g/mol
Absorption	λmax 292, 338 nm (in THF)
Fluorescence	λem 345, 360 nm (in THF)
HOMO/LUMO	HOMO = 5.9 eV, LUMO = 2.4 eV
Synonyms	mCP, 1,3-Di(9H-carbazol-9-yl)benzene, N,N'-Dicarbazolyl-3,5-benzene
Classification / Family	Hole transporting materials, Phosphorescent host materials, OLEDs, Organic electronics
Purity	*>99.5% (sublimed)*
Melting point	*173-178 °C (lit.)*
Appearance	*White powder*

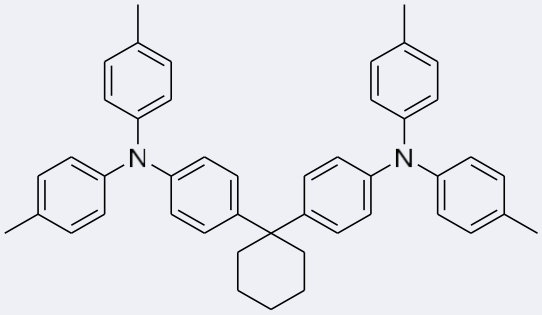


PPT, PO15

PPT , electron-transport material

2,8-Bis(diphenyl-phosphoryl)-dibenzo[b,d]thiophene

CAS number	1019842-99-9
Full name	2,8-Bis(diphenyl-phosphoryl)-dibenzo[b,d]thiophene
Chemical formula	C36H26O2P2S
Molecular weight	584.60 g/mol
Absorption	λmax 312, 328 nm in DCM
Fluorescence	λem 350 nm in DCM
HOMO/LUMO	HOMO = 6.7 eV, LUMO = 3.0 eV (ET = 3.1 eV) [1]
Synonyms	DPDT, PO15
Classification / Family	Organic electronics, Electron-transport layer materials (ETL), Phosphorescent host materials, TADF-OLEDs, Organic long persistent luminescence
Purity	*Sublimed: >99.0% (HPLC)*
Melting point	*TGA: >320 °C*
Appearance	*Yellow powder/crystals*

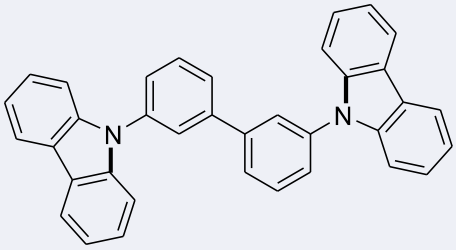


TAPC

1,1-Bis[(di-4-tolylamino)phenyl]cyclohexane, TAPC, hole transport material

blue phosphorescent

CAS number	58473-78-2
Chemical formula	C46H46N2
Molecular weight	626.87 g/mol
Absorption	λmax 305 nm (in THF)
Fluorescence	λem 414 nm (in THF)
HOMO/LUMO	HOMO = 5.5 eV, LUMO = 2.0 eV
Synonyms	4,4′-Cyclohexylidenebis[N,N-bis(4-methylphenyl)benzenamine] 1,1-Bis[(di-4-tolylamino)phenyl]cyclohexane
Classification / Family	Hole-injection layer (HIL) materials, Hole transport layer (HTL) materials, Electron blocking layer (EIL) materials, Phosphorescent host materials, Thermally-activated delayed fluorescence (TADF) materials, Organic light-emitting diodes (OLEDs)
Purity	*>99.5% (sublimed)*
Melting point	*186 °C (lit.)*
Appearance	*White powder/crystals*

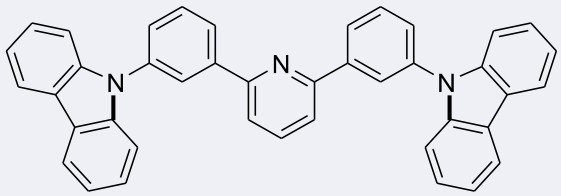


mCBP

mCBP, 3,3′-Di(9H-carbazol-9-yl)-1,1′-biphenyl,

blue, green, orange, and yellow fluorescent and phosphorescent emitters.

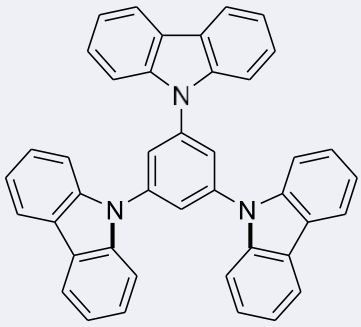
CAS number	342638-54-4
Full name	3,3′-Di(9H-carbazol-9-yl)-1,1′-biphenyl
Chemical formula	C36H24N2
Molecular weight	484.59 g/mol
Absorption	λmax 340 nm in toluene
Fluorescence	n/a
HOMO/LUMO	HOMO = 6.0 eV, LUMO = 2.4 eV [1]
Synonyms	n/a
Classification / Family	fluorescent host materials, blue exciplex host materials, sublimed materials, OLED-TADF, Organic electronics.
Purity	*Sublimed >99% (HPLC)*
Melting point	*272 °C*
Appearance	*White crystals/powder*



26DCzPPy

2,6-bis(3-(carbazol-9-yl)phenyl)pyridine (26DCzPPy)

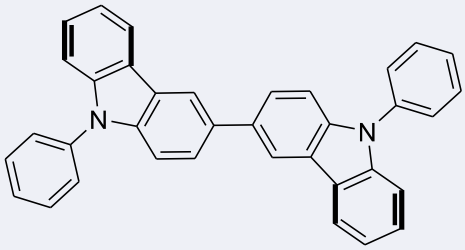
CAS number	1013405-24-7
Chemical formula	C41H27N3
Molecular weight	561.67 g/mol
Absorption	λmax 239, 292 nm (in CH2Cl2)
Fluorescence	λem 410 nm (in CH2Cl2)
HOMO/LUMO	HOMO = 6.05 eV, LUMO = 2.56 eV [1]
Synonyms	2,6-bis[3-(9H-Carbazol-9-yl)phenyl]pyridine DCzPPy
Classification / Family	Bipolar charge transport layer materials, Phosphorescent host materials, OLEDs, Organic electronics
Purity	*>98.0%*
Melting point	*230 °C*
Appearance	*White powder/crystals*



TCP, 1,3,5-Tris(carbazol-9-yl)benzene

1,3,5-tris(carbazol-9-yl)benzene (tCP) hole-transporting layer (HTL) material.

CAS number	148044-07-9
Chemical formula	C42H27N3
Molecular weight	573.68 g/mol
Absorption	λmax 292, 337 nm (THF)
Fluorescence	λem 343, 358 nm (THF)
HOMO/LUMO	HOMO = 5.8 eV, LUMO = 2.3 eV
Synonyms	TCB tCP 1,3,5-tris(N-carbazolyl)benzene
Classification / Family	Hole-injection materials, Hole-transporting materials, Phosphorescent host materials, Organic light-emitting Diodes (OLEDs), Organic electronics
Purity	*>99.0% (sublimed)*
Melting point	*330 °C*
Appearance	*White powder/crystals*

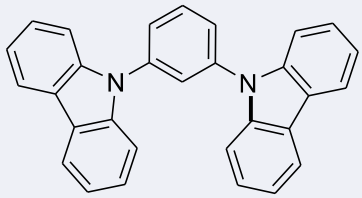


BCzPh

9,9'-Diphenyl-9H,9'H-3,3'-bicarbazole (BCzPh),

blue, red, green and white electroluminescent OLED devices.

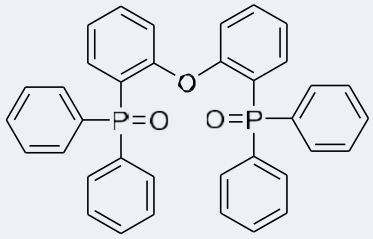
CAS number	57102-62-2
Full name	9,9'-Diphenyl-9H,9'H-3,3'-bicarbazole
Chemical formula	C36H24N2
Molecular weight	484.59 g/mol
Absorption	λmax 303 nm in DCM
Fluorescene	λmax 391, 408 nm in DCM
HOMO/LUMO	HOMO 5.67 eV, LUMO 2.3 eV [1]
Classification / Family	Light-emitting diodes, Organic electronics, PHOLED host materials
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*TGA: 340 °C (0.5% weight loss)* *Tg = 100 °C*
Appearance	*Off-white crystals/powder*



PYD-2Cz (PYD2)

2,6-Bis(9H-carbazol-9-yl)pyridine (PYD-2Cz)

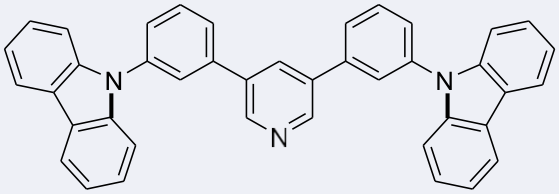
CAS number	168127-49-9
Full name	2,6-Bis(9H-carbazol-9-yl)pyridine
Chemical formula	C29H19N3
Molecular weight	409.48 g/mol
Absorption	λmax 241 nm, 290 nm in DCM
Fluorescene	λem 373 nm in THF
HOMO/LUMO	HOMO = 5.7 eV, LUMO = 2.2 eV; T1 = 2.93 eV [1]
Synonyms	PYD2, PYD-2, mCPy
Classification / Family	TADF green emitter materials, Phosphorescent organic light-emitting devices (PHOLEDs)
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*202°C*
Appearance	*Off-white powder/crystals*



DPEPO

DPEPO, host blue TADF-based OLEDs.

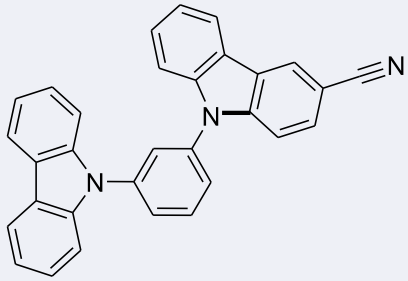
CAS number	808142-23-6
Full name	Bis[2-(diphenylphosphino)phenyl]ether oxide
Synonyms	DPEPO
Chemical formula	C36H28O3P2
Molecular weight	570.55 g/mol
Absorption*	λmax 388 nm in CH2Cl2
Fluorescence	λem 311 nm in CH2Cl2
HOMO/LUMO	HOMO = 6.1 eV, LUMO = 2.0 eV; T1 = 3.0 eV [1]
Classification / Family	Diphenyl ether (DPE), TADF blue emitter host materials, Electron-transport layer materials (ETL), Hole-blocking layer materials (HBL), Phosphorescent organic light-emitting devices (PHOLEDs)
Purity	*Sublimed* >99.0% (HPLC)*
Melting point	*176-177 °C*
Appearance	*White powder/crystals*



35DCzPPy

3,5-bis(3-(carbazol-9-yl)phenyl)pyridine (35DCzPPy)

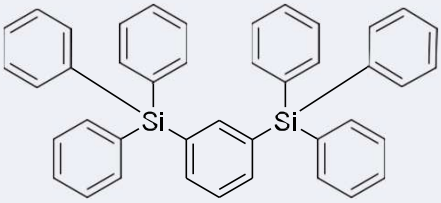
CAS number	1013405-25-8
Chemical formula	C41H27N3
Molecular weight	561.67 g/mol
Absorption	λmax 307 nm, 317 nm (in CH2Cl2)
Fluorescence	λem 347 nm (in CH2Cl2)
HOMO/LUMO	HOMO = 6.18 eV, LUMO = 2.75 eV [1]
Synonyms	3,5-bis(3-(9H-carbazol-9-yl)phenyl)pyridine
Classification / Family	Bipolar charge transport layer materials, Phosphorescent host materials, OLEDs, Organic electronics
Purity	*>98.0%*
Melting point	*290 °C*
Colour	*White powder/crystals*



mCPCN

mCPCN, 9-(3-(9H-Carbazol-9-yl)phenyl)-9H-carbazole-3-carbonitrile, blue, green, red and white light emitting TADF-OLED devices.

CAS number	1392506-99-8
Chemical formula	C31H19N3
Molecular weight	433.5 g/mol
Absorption	λmax 326, 339 nm (in DCM)
Fluorescence	λem 348, 365 nm (in DCM)
HOMO/LUMO	HOMO = 5.80 eV, LUMO = 2.24 eV; ET = 3.03 eV [1]
Full name	9-(3-(9H-Carbazol-9-yl)phenyl)-9H-carbazole-3-carbonitrile
Synonyms	mCP-CN
Classification / Family	Hole transporting materials, Phosphorescent host materials, OLEDs, TADF materials, Organic electronics
Purity	*Sublimed* >99.0%*
Melting point	*Tm = 222 °C (lit.), Td = 313 °C (5% weight loss), Tg = 97 °C*
Colour	*White Powder*

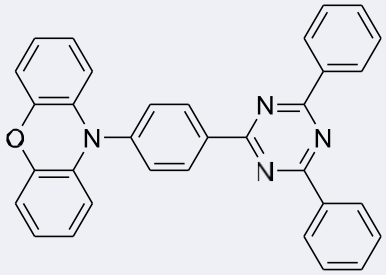


UGH3

UGH3, 1,3-bis(triphenylsilyl)benzene

a weak electron-transport-type host for highly efficient blue PHOLEDs.

CAS number	18920-16-6
Chemical formula	C42H34Si2
Molecular weight	594.89 g/mol
Absorption	λmax 265 nm in THF
Fluorescene	λem 418 nm
HOMO/LUMO	HOMO = 7.20 eV, LUMO = 2.80 eV, ET =3.1 eV [1]
Full chemical name	1,3-Bis(triphenylsilyl)benzene
Synonyms	UGH-3
Classification / Family	Phosphorescent blue host material, Hole blocking materials
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*46 °C*
Appearance	*White powder/crystals*

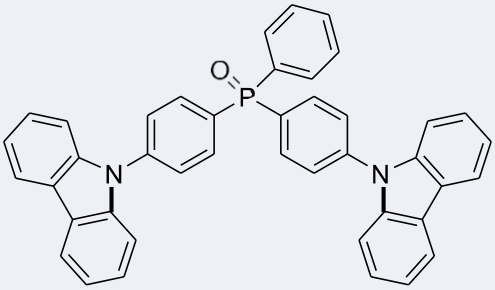


PXZ-TRZ

PXZ-TRZ, phenoxazine-2,4,6-triphenyl-1,3,5-triazine

green emitter

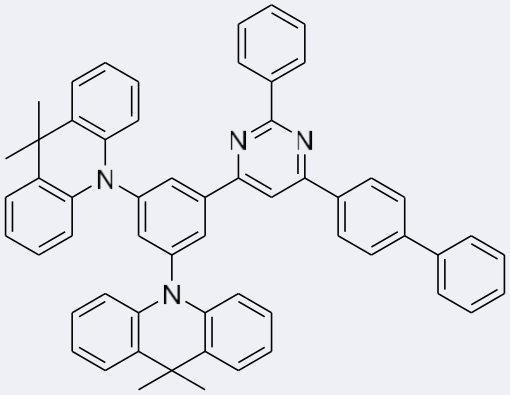
CAS number	1411910-25-2
Chemical formula	C33H22N4O
Molecular weight	490.55 g/mol
Absorption	λmax 420 nm (in Toluene)
Fluorescene	λem 545 nm (in Toluene)
HOMO/LUMO	HOMO = 5.5 eV, LUMO = 3.1 eV [1]
Full chemical name	10-(4-(4,6-diphenyl-1,3,5-triazin-2-yl)phenyl)-10H-phenoxazine
Synonyms	Phenoxazine-2,4,6-triphenyl-1,3,5-triazine
Classification / Family	TADF green emitters, TADF host materials
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*TGA: >300 °C*
Appearance	*Yellow powder/crystals*



BCPO

Bis-4-(N-carbazolyl)phenyl)phenylphosphine oxide -

CAS number	1233407-28-7
Full name	Bis-4-(N-carbazolyl)phenyl)phenylphosphine oxide
Chemical formula	C42H29N2OP
Molecular weight	608.67 g/mol
Absorption	λmax 292 nm in DCM
Fluorescence	λmax 388 nm in DCM
HOMO/LUMO	HOMO = 5.76 eV, LUMO = 2.19 eV; ET = 3.01 eV [1]
Synonyms	9,9′-(4,4′-(Phenylphosphoryl)bis-(4,1-phenylene))bis(9H-carbazole)
Classification / Family	Bipolar host materials, Fluorescent host materials, Phosphorescent host materials, TADF materials
Purity	*Sublimed > 99% (HPLC)*
Melting point	*Tg = 137 °C*
Appearance	*White crystals/powder*

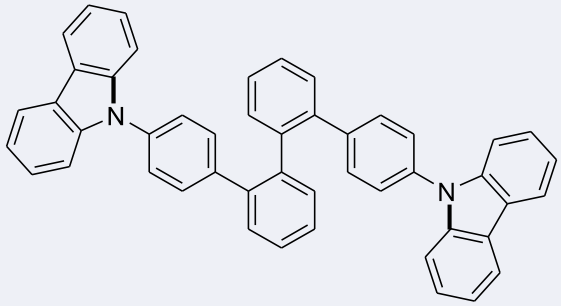


DMAC-BPP

DMAC-BPP,10,10′-[5-(6-[1,1′-biphenyl]-4-yl-2-phenyl-4-pyrimidinyl)-1,3-phenylene]bis[9,10-dihydro-9,9-dimethyl-acridine]

TADF bluish-green emitter which can also be used as yellow and red phosphorescent host material for TADF-OLED devices.

CAS number	1836192-40-5
Full name	10,10′-[5-(6-[1,1′-biphenyl]-4-yl-2-phenyl-4-pyrimidinyl)-1,3-phenylene]bis[9,10-dihydro-9,9-dimethyl-acridine]
Chemical formula	C58H46N4
Molecular weight	788.01 g/mol
Absorption	λmax 282 nm
Fluorescence	λem 496 nm
HOMO/LUMO	HOMO = 5.38 eV, LUMO = 2.46 eV [1]
Synonyms	BPP-DMAC, Acridine, 10,10'-[5-(6-[1,1'-biphenyl]-4-yl-2-phenyl-4-pyrimidinyl)-1,3-phenylene]bis[9,10-dihydro-9,9-dimethyl-]
Classification / Family	TADF bluish green emitter materials, Phosphorescent organic light-emitting devices (PHOLEDs)
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*Tg = 220 °C (lit.)*
Appearance	*Light yellow powder/crystals*

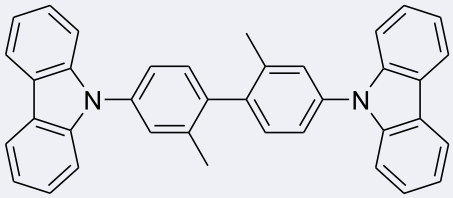


BCBP

2,2'-bis(4-(carbazol-9-yl)phenyl)-biphenyl (BCBP)

blue, green, red phosphorescent dopants for highly efficient OLED devices

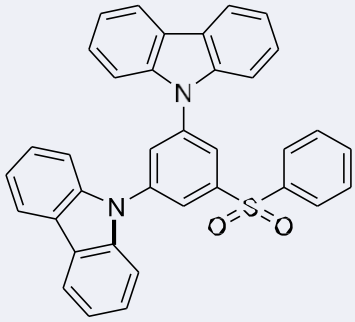
CAS number	858131-70-1
Full name	2,2'-bis(4-(carbazol-9-yl)phenyl)-biphenyl
Chemical formula	C48H32N2
Molecular weight	636.78 g/mol
Absorption*	λmax 325 nm in DCM
Fluorescence	λem 373 nm in DCM
HOMO/LUMO	HOMO = 6.1 eV, LUMO = 2.6 (Eg = 3.5 eV; ET = 2.8 eV)
Synonyms	2,2'-bis(4-carbazolylphenyl)-1,1'-biphenyl
Classification / Family	Organic electronics, Hole transport layer materials (HTL), Fluorescent and phosphorescent host materials, TADF-OLEDs
Purity	*Sublimed* >99.0% (HPLC)*
Melting point	*Tg = 173 °C (lit.)*
Colour	*White powder/crystals*



CDBP

4,4'-Bis(9-carbazolyl)-2,2'-dimethylbiphenyl (CDBP), in blue, green, red and white OLED and TADF devices.

CAS number	120260-01-7
Full name	4,4'-Bis(9-carbazolyl)-2,2'-dimethylbiphenyl
Chemical formula	C38H28N2
Molecular weight	512.64 g/mol
Absorption	λmax 292 nm in THF
Fluorescence	λmax 364 nm in THF
HOMO/LUMO	HOMO = 6.1 eV, LUMO = 2.7 eV [1]
Synonyms	9-[4-(4-Carbazol-9-yl-2-methylphenyl)-3-methylphenyl]carbazole 9,9'-(2,2'-Dimethylbiphenyl-4,4'-diyl)bis(9H-carbazole)
Classification / Family	Fluorescent host materials, Phosphorescent host materials, Hole-transport layer materials, Exciton-blocking layer materials, TADF-OLED materials, Organic electronics
Purity	*Sublimed > 99% (HPLC)*
Melting point	*Tg = 94 °C (lit.)*
Appearance	*White crystals/powder*

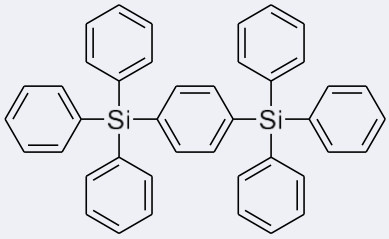


mCPSOB

9-(3-(9H-Carbazol-9-yl)-5-(phenylsulfonyl)phenyl)-9H-carbazole (mCPSOB)

for blue/deep blue dopants.

CAS number	1374770-41-8
Full name	9-(3-(9H-Carbazol-9-yl)-5-(phenylsulfonyl)phenyl)-9H-carbazole
Chemical formula	C36H24N2O2S
Molecular weight	548.65 g/mol
HOMO/LUMO	HOMO 5.8 eV, LUMO 2.5 eV; ES = 2.93 eV, ET = 3.02 eV [1]
Synonyms	3,5-Di(carbazol-9-yl)-1-phenylsulfonylbenzene
Classification / Family	Light-emitting diodes, Organic electronics, TADF blue/green host materials, Ambipolar materials
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*140 °C*
Appearance	*Off-white powder/crystals*

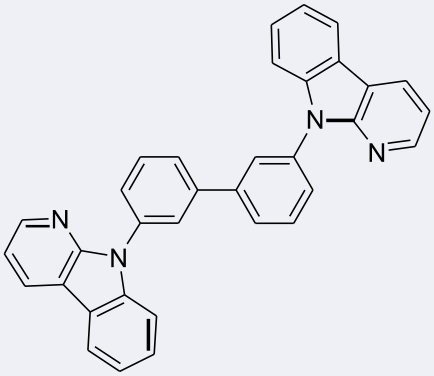


UGH-2

1,4-Bis(triphenylsilyl)benzene, UGH-2, for blue-emitting dopants

electron-transport (ETL) and hole-blocking layer (HBL) material.

CAS number	40491-34-7; 18856-08-1
Full name	1,4-Bis(triphenylsilyl)benzene
Chemical formula	C42H34Si2
Molecular weight	594.89 g/mol
Absorption	λmax 265 nm in DCM
Fluorescene	λem 298 nm in DCM
HOMO/LUMO	HOMO = 7.2 eV, LUMO = 2.8 eV (ET = 3.5 eV)
Synonyms	UGH2, 1,4-Phenylenebis(triphenylsilane)
Classification / Family	Organic electronics, Hole-blocking layer materials (HBL), TADF blue host materials, Blue PhOLEDs, TADF-OLEDs
Purity	*Sublimed: >99.0% (HPLC)*
Melting point	*TGA: 350-352 °C*
Colour	*White powder/crystals*

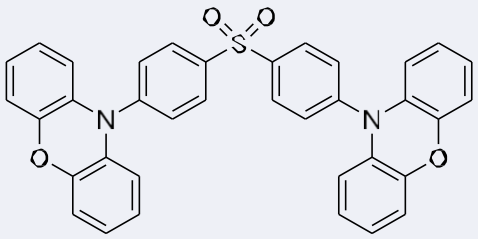


CbBPCb

CbBPCb,

3,3'-Di(9H-pyrido[2,3-b]-indol-9-yl)biphenyl

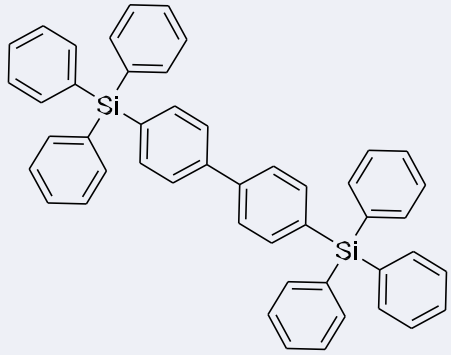
CAS number	1469997-91-8
Chemical formula	C34H22N4
Molecular weight	486.57 g/mol
Absorption	λmax 240 nm, 297 nm (THF)
Photoluminescence	λem 382 nm (THF)
HOMO/LUMO	HOMO = 6.25 eV, LUMO = 2.79 eV; ET = 2.77 eV [1]
Chemical name	3,3'-Di(9H-pyrido[2,3-b]-indol-9-yl)biphenyl
Synonyms	mCbBP
Classification / Family	Carboline derivatives, Phosphorescent host materials, Sublimed materials, Semiconducting small molecules
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*mp = 251 °C, Tg = 96 °C (lit.)*
Appearance	*Off-white powder/crystals*



PXZ-DPS

10,10′-(sulfonylbis(4,1-phenylene))bis(10H-phenoxazine) (PXZ-DPS),

CAS number	1477511-57-1
Full name	10-(4-(4-(10H-Phenoxazin-10-yl)phenylsulfonyl)phenyl)-10H-phenoxazine
Chemical formula	C36H24N2O4S
Molecular weight	580.65 g/mol
Absorption	n/a
PL	λem 507 nm in toluene
HOMO/LUMO	HOMO = 5.59 eV, LUMO = 2.79 eV; T1=2.74 eV, ΔEST = 0.08 eV [1]
Synonyms	DPS-PXZ
Classification / Family	TADF green emitter, TADF green host materials, Phosphorescent organic light-emitting devices (PHOLEDs)
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*TGA > 220 °C (0.5% weight loss)*
Appearance	*Off-white powder/crystals*

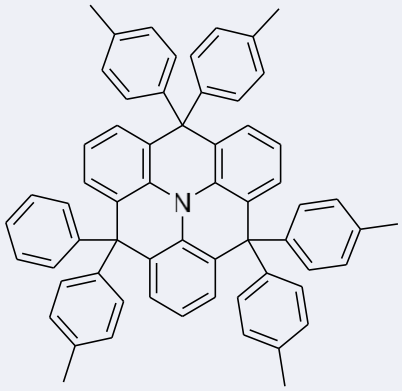


BSB

BSB, 4,4'-di(triphenylsilyl)-biphenyl,

blue light-emitting materials

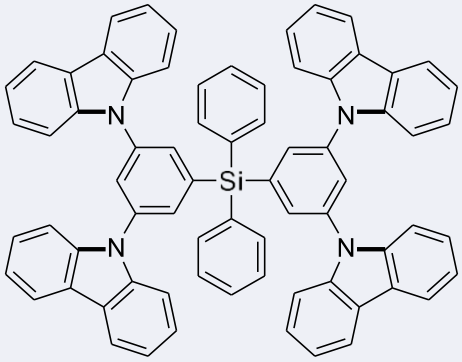
CAS number	18826-13-6
Chemical formula	C48H38Si2
Molecular weight	670.99 g/mol
Absorption	λmax 271 nm (dichloromethane)
Photoluminescence	λem 432 nm (dichloromethane)
HOMO/LUMO	HOMO = 6.5 eV, LUMO = 2.3 eV; ET = 2.76 eV [1]
Chemical name	4,4'-Di(triphenylsilyl)-biphenyl
Synonyms	4,4'-bis-triphenylsilanyl-biphenyl, 4,4'-di(triphenylsilyl)-biphenyl
Classification / Family	Phosphorescent host materials, Electron transport materials, Hole blocking layer materials, Semiconducting small molecules
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*Tg = 100 °C (lit.)*
Appearance	*White powder/crystals*



FATPA

FATPA, 4,4,8,8,12,12-Hexa-p-tolyl-4H-8H-12H-12C-aza-dibenzo[cd,mn]pyrene,

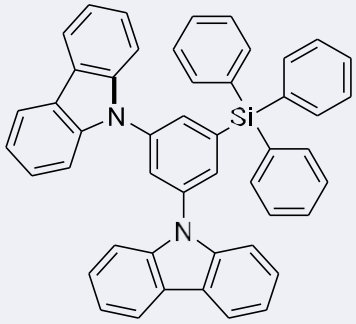
CAS number	1131007-94-7
Chemical formula	C63H51N
Molecular weight	822.09 g/mol
Absorption	λmax 311 nm (Toluene)
Photoluminescence	λem 375 nm (Toluene)
HOMO/LUMO	HOMO = 5.22 eV, LUMO = 1.62 eV; ET = 2.78 eV [1]
Chemical name	4,4,8,8,12,12-Hexa-p-tolyl-4H-8H-12H-12C-aza-dibenzo[cd,mn]pyrene
Synonyms	4,4,8,8,12,12-Hexakis(4-methylphenyl)-4H,8H,12H-benzo[1,9]quinolizino[3,4,5,6,7-defg]acridine
Classification / Family	Phosphorescent host materials, Semiconducting small molecules
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*Tg = 178°C (lit.)*
Appearance	*White powder/crystals*



SimCP2

SimCP2, 3,5-di(9H-carbazol-9-yl)tetraphenylsilane,

CAS number	944465-42-3
Chemical formula	C72H48N4Si
Molecular weight	977.26 g/mol
Absorption*	λmax 338 nm (dichloromethane)
Photoluminescence	λem 362 nm (dichloromethane)
HOMO/LUMO	HOMO = 6.1 eV, LUMO = 2.5 eV; ET = 3.0 eV [1]
Chemical name	Bis[3,5-di(9H -carbazol-9-yl)phenyl]diphenylsilane
Synonyms	TPINQ
Classification / Family	Phosphorescent host materials, Semiconducting small molecules
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*Tg = 148 °C (lit.)*
Appearance	*White powder/crystals*

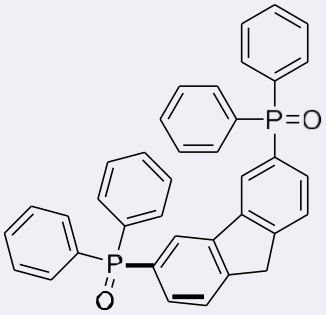


SimCP

SimCP, 3,5-bis(9-carbazolyl) tetraphenylsilane,

for blue, green and white emitting OLED devices.

CAS number	850221-63-5
Chemical formula	C48H34N2Si
Molecular weight	666.88 g/mol
Absorption*	λmax 345 nm (THF)
Photoluminescence	λem 446 nm (446)
HOMO/LUMO	HOMO = 6.1 eV, LUMO = 2.5 eV; ET = 3.02 eV [1]
Chemical name	3,5-Bis(9-carbazolyl) tetraphenylsilane
Synonyms	9,9'-(5-(triphenylsilyl)-1,3-phenylene)bis(9H-carbazole), [3,5-Di(9H-carbazol-9-yl)phenyl]triphenylsilane
Classification / Family	Phosphorescent host materials, Semiconducting small molecules
Purity	*Sublimed* >99.0% (HPLC)*
Melting point	*Tg = 101°C (lit.)*
Appearance	*White powder/crystals*

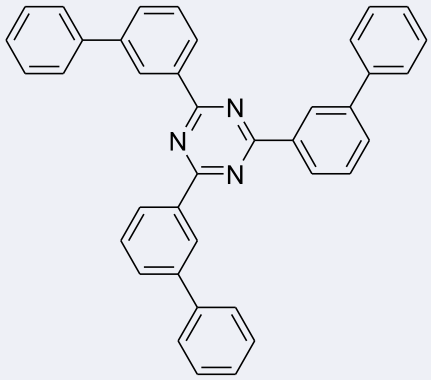


PPF

PPF, dibenzo[b,d]furan-2,8-diylbis(diphenylphosphine Oxide), electron transport layer materials,

CAS number	911397-27-8
Full name	2,8-Bis(diphenyl-phosphoryl)-dibenzo[b,d]furan
Chemical formula	C36H26O3P2
Molecular weight	568.54 g/mol
Absorption	λmax 300 nm in DCM
Fluorescence	λem 440 nm in DCM
HOMO/LUMO	HOMO = 6.7 eV, LUMO = 2.7 eV (ET = 3.1 eV) [1]
Synonyms	DFPO, DBFPO, Dibenzo[b,d]furan-2,8-diylbis(diphenylphosphine Oxide)
Classification / Family	Organic electronics, Electron-transport layer materials (ETL), Phosphorescent host materials, Fluorescent host materials, TADF-OLEDs, Organic long persistent luminescence
Purity	*Sublimed: >99.0% (HPLC)*
Melting point	*253 °C (dec.)*
Appearance	*White powder/crystals*

TRANSPORT LAYER MATERIALS

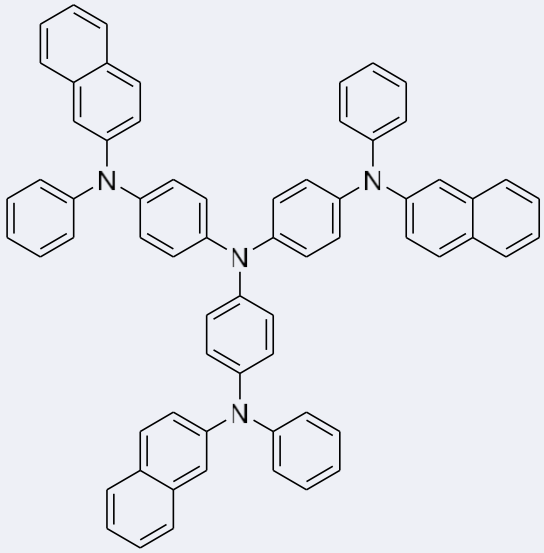


2,4,6-tris(biphenyl-3-yl)-1,3,5-triazine (T2T)

2,4,6-tris(biphenyl-3-yl)-1,3,5-triazine (T2T), electron transport layer material (**ETL**) for TADF-OLEDs.

blue-emission TADF devices.

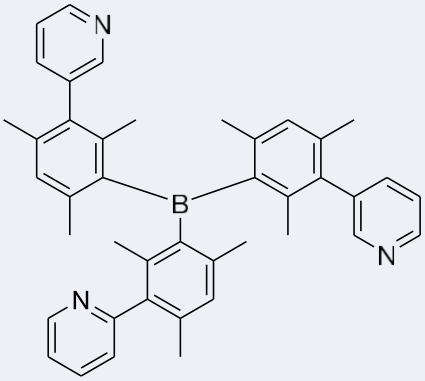
CAS number	1201800-83-0
Chemical formula	C39H27N3
Molecular weight	537.65 g/mol
Absorption	λmax 270 nm in DCM
Fluorescene	λem 380 nm in DCM
HOMO/LUMO	HOMO = 6.5 eV, LUMO = 3.0 eV; T1 = 2.80 eV [1]
Synonyms	2,4,6-tris(biphenyl-3-yl)-1,3,5-triazine
Classification / Family	TADF blue emitter materials, TADF host materials, Phosphorescent organic light-emitting devices (PHOLEDs)
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*TGA: 204 °C*
Appearance	*Off-white powder/crystals*



2-TNATA

4,4',4''-Tris[2-naphthyl(phenyl)amino] triphenylamine (2-TNATA), **HTL**

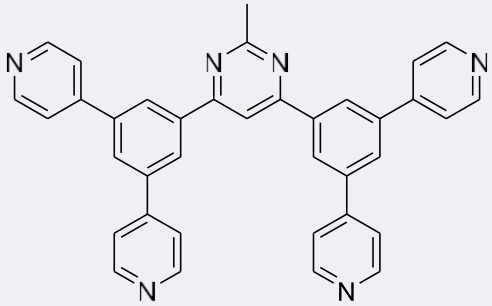
CAS number	185690-41-9
Chemical formula	C66H48N4
Molecular weight	897.11 g/mol
Absorption*	λmax 326 nm (THF)
Fluorescence	λem 490 nm (THF)
HOMO/LUMO	HOMO = 5.1 eV, LUMO = 2.2 eV
Synonyms	· 2-TNATA · 2TNATA · 2T-NATA · 4,4′,4′′-Tris[2-naphthyl(phenyl)amino] triphenylamine
Classification / Family	Triphenylamine derivatives, Hole-injection materials, Hole-transporting materials, Light-emitting diodes
Purity	*>99.0% (sublimed)*
Melting point	*246-248 °C (lit.)*
Appearance	*Pale yellow to yellow powder/crystals*



3TPYMB

Tris(2,4,6-trimethyl-3-(pyridin-3-yl) phenyl)borane (known as 3TPYM) electron-transport material.

CAS number	929203-02-1
Chemical formula	C42H42BN3
Molecular weight	599.61 g/mol
Absorption*	λmax 331 nm in THF
Fluorescence	λem 382 nm in THF
HOMO/LUMO	HOMO 6.8 eV, LUMO 3.3 eV
Synonyms	Tris(2,4,6-trimethyl-3-(pyridin-3-yl)phenyl)borane, Tri[3-(3-pyridyl)mesityl]borane
Classification / Family	Electron-transporting materials, Phosphorescent host materials, Light-emitting diodes, Perovskite solar cells, Organic electronics, TADF materials
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*TGA: 250 °C*
Appearance	*White powder/crystals*

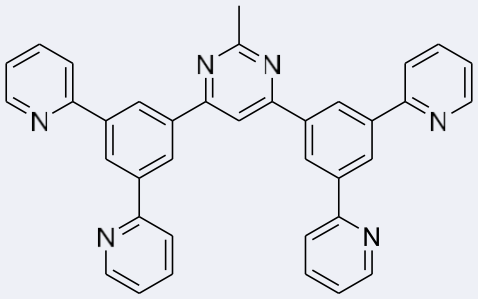


B4PymPm

B4PymPm **ETL**

4,6-Bis(3,5-di-4-pyridinylphenyl)-2-methylpyrimidine

CAS number	1030380-51-8
Full name	4,6-Bis(3,5-di(pyridin-4-yl)phenyl)-2-methylpyrimidine, 4,6-Bis(3,5-di-4-pyridinylphenyl)-2-methylpyrimidine
Chemical formula	C37H26N6
Molecular weight	554.64 g/mol
Absorption	λmax 250 nm in DCM
Fluorescence	λmax 410 nm in Film
HOMO/LUMO	4,6-Bis(3,5-di-4-pyridinylphenyl)-2-methylpyrimidine
Classification / Family	Highly efficient light-emitting diodes, Organic electronics, Electron-transport layer (ETL) materials, Hole-blocking layer (HBL) materials
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*374 °C (lit.)*
Appearance	*White crystals/powder*

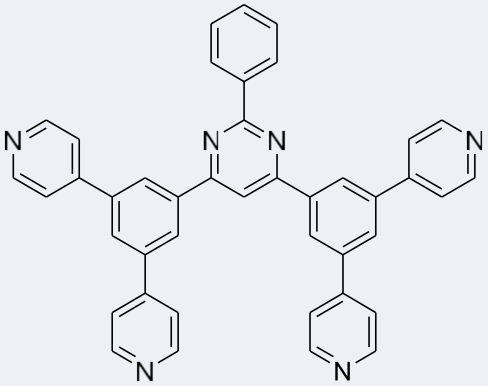


B2PymPm

B2PymPm,

4,6-Bis(3,5-di(pyridin-2-yl)phenyl)-2-methylpyrimidine, electron-transport layer or hole-blocking layer material

CAS number	1266181-51-4
Full name	4,6-Bis(3,5-di(pyridin-2-yl)phenyl)-2-methylpyrimidine
Chemical formula	C37H26N6
Molecular weight	554.64 g/mol
Absorption	λmax 288 nm in chloroform
Fluorescence	λmax 417 nm in chloroform
HOMO/LUMO	HOMO = 6.62 eV, LUMO = 3.55 eV [1]; ET1 = 3.04 eV
Classification / Family	Light-emitting diodes, Organic electronics, Electron-transport layer (ETL) materials, Hole-blocking layer (HBL) materials
Purity	*Sublimed: >99.0% (HPLC)*
Melting point	*Tm = 257 °C (melting point); Tg = 107 °C (glass transition temperature)*
Appearance	*White crystals/powder*

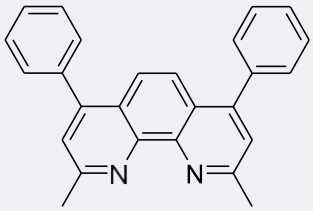


B4PyPPm

B4PyPPM **ETL**

4,6-Bis(3,5-di-4-pyridinylphenyl)-2-phenylpyrimidine

CAS number	1097652-83-9
Full name	4,6-Bis(3,5-di(pyridin-4-yl)phenyl)-2-phenylpyrimidine, 4,6-Bis(3,5-di-4-pyridinylphenyl)-2-phenylpyrimidine
Chemical formula	C42H28N6
Molecular weight	616.71 g/mol
Absorption	λmax 254 nm in DCM
Fluorescence	n.a.
HOMO/LUMO	HOMO = 7.15 eV, LUMO = 3.44 eV [1]; ET1 = 2.72 eV
Synonyms	4,6-Bis(3,5-di-4-pyridinylphenyl)-2-phenylpyrimidine
Classification / Family	Highly efficient light-emitting diodes, Organic electronics, Electron-transport layer (ETL) materials, Hole-blocking layer (HBL) materials, TADF materials
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*356 °C*
Appearance	*White crystals/powder*

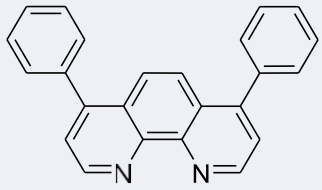


Bathocuproine (BCP)

Bathocuproine (BCP), hole-blocking layer materials

2,9-Dimethyl-4,7-diphenyl-1,10-phenanthroline

Full name	2,9-Dimethyl-4,7-diphenyl-1,10-phenanthroline
Synonyms	Bathocuproine BCP
CAS number	4733-39-5
Molecular formula	C26H20N2
Molecular weight	360.45 g/mol
HOMO / LUMO	HOMO ~ 6.4 eV LUMO ~2.9 eV
Classification / Family	Electron-transport layer (ETL), Electron-injection layer (EIL), Hole-blocking layer, OFET, OLED, Organic Photovoltaics, Perovskite solar cells
Purity	*>99.5% (sublimed)*
Melting point	*280-282°C (lit.)*
Appearance	*Light yellow powder*

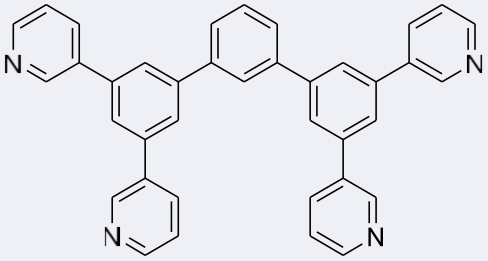


BPhen (Bathophenanthroline)

BPhen hole-blocking

4,7-Diphenyl-1,10-phenanthroline

CAS number	1662-01-7
Chemical formula	C24H16N2
Molecular weight	332.40 g/mol
Absorption	λmax 272 nm (in THF)
Fluorescence	λem 379 nm (in THF)
HOMO/LUMO	HOMO = 6.4 eV; LUMU = 3.0 eV
Synonyms	Bathophenanthroline 4,7-Diphenyl-1,10-phenanthroline
Classification / Family	Hole-blocking layer (HBL), Electron-injection layer (EIL), OLEDS, Organic photovoltaics, Perovskite solar cells
Purity	*Sublimed > 99.0%*
Melting point	*218-220 °C (lit.)*
Appearance	*Off-white to pale yellow crystals*

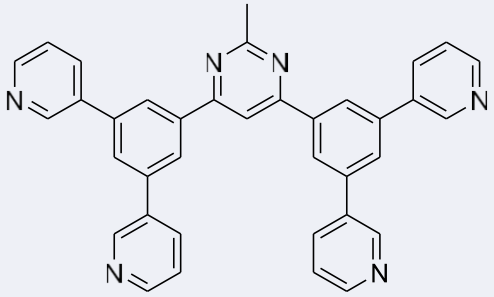


B3PyPB

B3PyPB, electron-transport material (ETL)

1,3-Bis(3,5-dipyrid-3-ylphenyl)benzene

CAS number	1030380-38-1
Full name	1,3-Bis(3,5-dipyrid-3-ylphenyl)benzene
Chemical formula	C38H26N4
Molecular weight	538.64 g/mol
Absorption	λmax 259 nm in film
Fluorescene	λem 359 nm in film
HOMO/LUMO	HOMO 6.60 eV, LUMO 2.60 eV [1]
Synonyms	1,3-Bis[3,5-di(pyridin-3-yl)phenyl]benzene, BmPyPB, BmPyPhB
Classification / Family	Organic electronics, Hole blocking layer materials (HBL), Electron transporting layer materials (ETL), TADF-OLEDs
Purity	*Sublimed: >99.0% (HPLC)*
Melting point	*TGA: 264 °C*
Colour	*White powder/crystals*

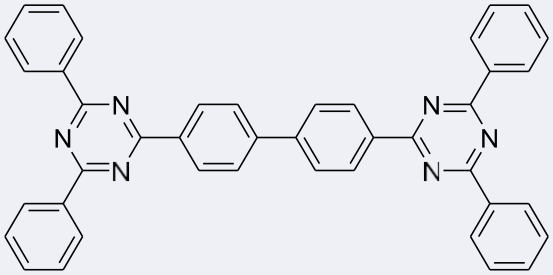


B3PymPm

B3PymPm, electron-transporting or hole-blocking layer material

4,6-Bis(3,5-di(pyridin-3-yl)phenyl)-2-methylpyrimidine

CAS number	925425-96-3
Full name	4,6-Bis(3,5-di(pyridin-3-yl)phenyl)-2-methylpyrimidine, 4,6-Bis(3,5-di-3-pyridinylphenyl)-2-methylpyrimidine
Chemical formula	C37H26N6
Molecular weight	554.64 g/mol
Absorption*	λmax 248 nm in DCM
Fluorescence	n/a
HOMO/LUMO	HOMO = 6.97 eV, LUMO = 3.53 eV [1]; ET1 = 3.08 eV
Classification / Family	Highly efficient light-emitting diodes, Organic electronics, Electron-transport layer (ETL) materials, Hole-blocking layer (HBL) materials
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*326 °C*
Appearance	*White crystals/powder*

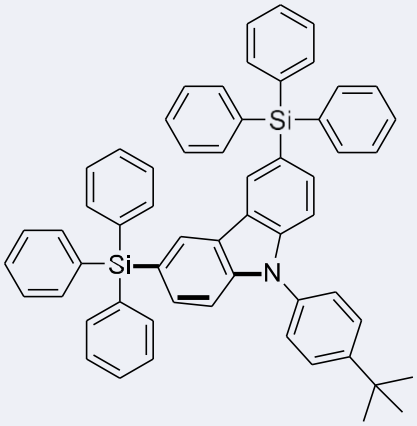


BTB

BTB, 4,4'-bis(4,6-diphenyl-1,3,5-triazin-2-yl)biphenyl, electron-transport material

phosphorescent host material for green and red light-emitting diodes.

CAS number	266349-83-1
Full name	4,4'-bis(4,6-diphenyl-1,3,5-triazin-2-yl)biphenyl, 4,4'-bis-[2-(4,6-diphenyl-1,3,5-triazinyl)]-1,10-biphenyl
Chemical formula	C34H28N6
Molecular weight	520.62 g/mol
Absorption	n.a.
Fluorescence	n.a.
HOMO/LUMO	HOMO = 6.18 eV, LUMO = 2.14 eV [1]
Classification / Family	Electron-transport layer (ETL) materials, Hole-blocking layer (HBL) materials, TADF materials.
Purity	*Sublimed > 99% (LCMS)*
Melting point	*362 °C (lit.); Tg = 137 °C*
Appearance	*White crystals/powder*

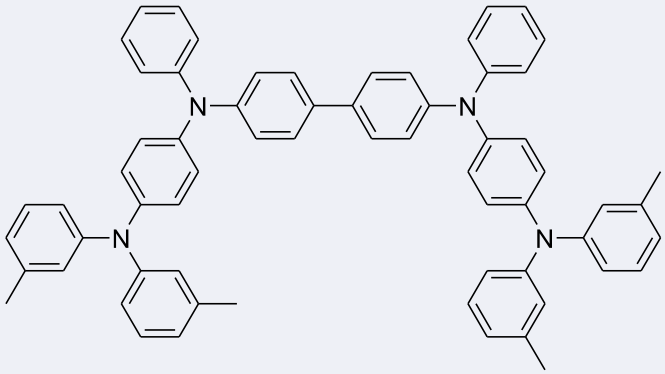


CzSi

CzSi, **HTL**

9-(4-tert-Butylphenyl)-3,6-bis(triphenylsilyl)-9H-carbazole

CAS number	898546-82-2
Full name	9-(4-tert-Butylphenyl)-3,6-bis(triphenylsilyl)-9H-carbazole
Chemical formula	C58H49NSi2
Molecular weight	816.19 g/mol
Absorption	λmax 275 nm in CH2Cl2
Fluorescene	λem 354 nm in CH2Cl2
HOMO/LUMO	HOMO = 6.0 eV, LUMO = 2.5 eV; T1=3.02 eV [1]
Classification / Family	TADF blue emitter host materials, Hole-transport layer materials, Phosphorescent organic light-emitting devices (PHOLEDs)
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*TGA: 354 °C*
Appearance	*Off-white powder/crystals*

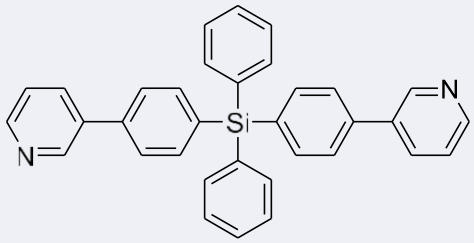


DNTPD

DNTPD, hole transport

N1,N1'-(Biphenyl-4,4'-diyl)bis(N1-phenyl-N4,N4 -di-m-tolylbenzene-1,4-diamine

CAS number	199121-98-7
Full name	N1,N1'-(Biphenyl-4,4'-diyl)bis(N1-phenyl-N4,N4 -di-m-tolylbenzene-1,4-diamine
Chemical formula	C64H54N4
Molecular weight	879.1 g/mol
Absorption*	λmax 326 nm in DCM
Fluorescence	λem 473 nm in DCM
HOMO/LUMO	HOMO = 5.1 eV, LUMO = 2.1 eV [1]
Synonyms	N,N'-Bis{4-[bis(3-methylphenyl)amino]phenyl}-N,N'-diphenyl-4,4'-biphenyldiamine
Classification / Family	Organic electronics, Hole-injection layer materials (HIL), Hole transport layer (HTL) materials
Purity	*Sublimed* >99% (HPLC)*
Melting point	*TGA: 105-112 °C*
Appearance	*Yellow powder/crystals*

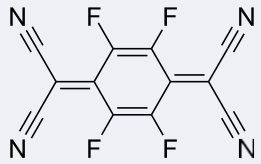


DPPS

Diphenyl-bis[4-(pyridin-3-yl)phenyl]silane, DPPS,

weak electron-transporting material, DPPS is also used as a hole-blocking layer material in photo-electronic devices

CAS number	1152162-74-7
Full name	Diphenyl-bis(4-(pyridin-3-yl)phenyl)silane
Chemical formula	C34H26N2Si
Molecular weight	490.67 g/mol
Absorption	λmax 251 nm in DCM
Fluorescene	λem 366 nm in DCM
HOMO/LUMO	HOMO = 6.5 eV, LUMO = 2.5 (ET = 2.7 eV)
Synonyms	3,3'-[(Diphenylsilylene)di-4,1-phenylene]bispyridine
Classification / Family	Hole-blocking layer materials (HBL), Electron-transporting layer materials (ETL), TADF-OLEDs
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*TGA: >250 °C*
Colour	*White powder/crystals*

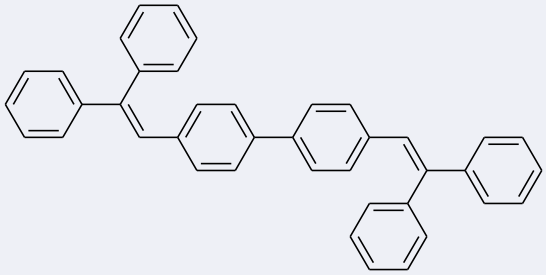


F4TCNQ

F4TCNQ

(2,3,5,6-Tetrafluoro-2,5-cyclohexadiene-1,4-diylidene)dimalononitrile

CAS number	29261-33-4
Chemical formula	C12F4N4
Molecular weight	276.15 g/mol
HOMO/LUMO	HOMO = 8.3 eV, LUMO = 5.2 eV
Synonyms	F4-TCNQ 2,3,5,6-Tetrafluoro-7,7,8,8-tetracyanoquinodimethane (2,3,5,6-Tetrafluoro-2,5-cyclohexadiene-1,4-diylidene)dimalononitrile 7,7,8,8-Tetracyano-2,3,5,6-tetrafluoroquinodimethane
Classification / Family	Strong electron acceptor, Hole-injection materials, Hole-transport layer material, OLEDs, Polymer Solar Cells, Perovskite Solar Cells, OFETs.
Purity	*>99% (sublimed)*
Melting point	*291 °C (DSC onset)*
Appearance	*Brown-yellow powder*

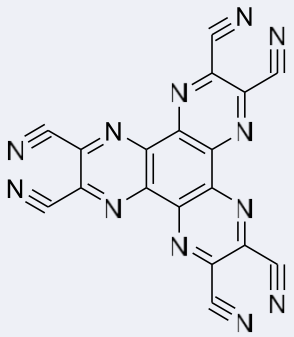


dPVBi

DPVBi,

4,4 -bis(2,2 -diphenylvinyl)-1,1 -diphenyl, blue host-emitting material in OLEDs.

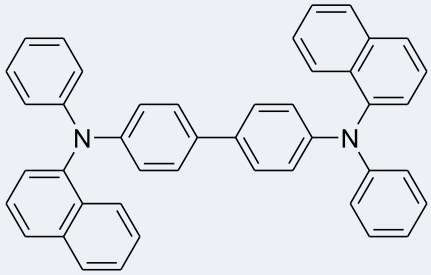
CAS number	142289-08-5
Chemical formula	C40H30
Molecular weight	510.67 g/mol
Absorption*	λmax 351 nm (THF)
Fluorescence	λem 447 nm (THF)
HOMO/LUMO	HOMO = 5.9 eV, LUMO = 2.8 eV
Synonyms	· 4,4'-Bis(2,2-diphenylvinyl)biphenyl · 4,4'-Bis(2,2-diphenylvinyl)-1,1'-diphenyl · 4,4'-Bis(2,2-diphenylethenyl)-1,1'-biphenyl
Classification / Family	Hole-injection materials, Hole-transporting materials, Blue light-emitting materials, Host materials, Organic light-emitting diodes (OLEDs), Organic electronics
Purity	*Sublimed* >99.0% (HPLC)*
Melting point	*207 °C (lit.)*
Appearance	*Yellow powder/crystals*



HATCN

1,4,5,8,9,11-Hexaazatriphenylenehexacarbonitrile, HAT-CN, hole-injection layer (HIL)

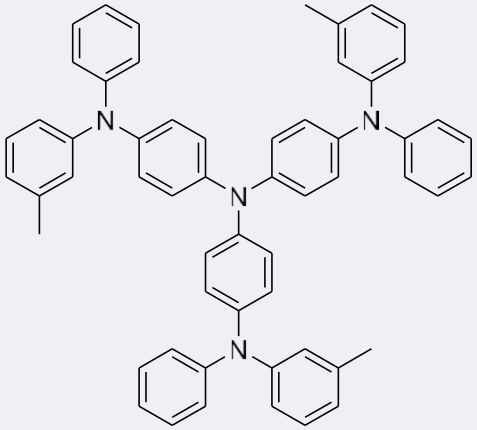
CAS number	105598-27-4
Chemical formula	C18N12
Molecular weight	384.27 g/mol
Absorption	λmax 282, 321 nm (in CH2Cl2)
Fluorescence	λem 422 nm (in CH2Cl2)
HOMO/LUMO	HOMO 7.5 eV, LUMO 4.4 eV [1]
Synonyms	1,4,5,8,9,11-Hexaazatriphenylenehexacarbonitrile HAT-CN6 HATCN Dipyrazino[2,3-f:2',3'-h]quinoxaline-2,3,6,7,10,11-hexacarbonitrile
Classification / Family	Charge-generation layer (CGL) materials, Hole-injection layer materials (HIL), OLED and PLED materials, Organic electronics, Perovskite solar cells.
Purity	*Sublimed>99.0%*
Thermal Gravimetric Analysis (TGA)	*430 °C (0.5% weight loss)*
Appearance	*Dark yellow powder/crystals*



NPB (NPD)

N,N′-Di(1-naphthyl)-N,N′-diphenyl-(1,1′-biphenyl)-4,4′-diamine, NPB or NPD,

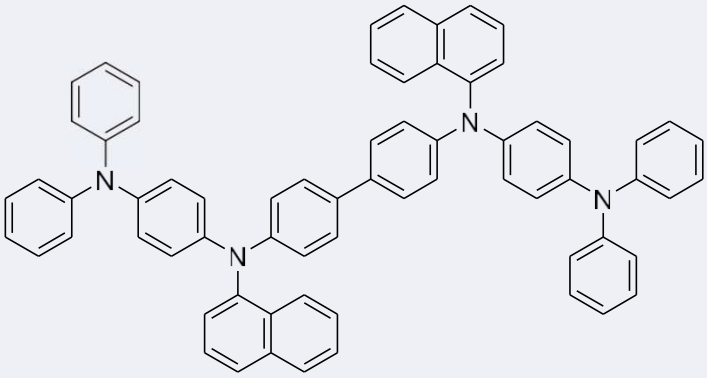
CAS number	123847-85-8
Chemical formula	C44H32N2
Molecular weight	588.74 g/mol
HOMO/LUMO	HOMO = 5.5 eV, LUMO = 2.4 eV
Absorption*	λmax 339 nm
Fluorescence	λem 450 nm (in THF)
Synonyms	NPB, NPD, α-NPB, α-NPD N,N′-Di(1-naphthyl)-N,N′-diphenyl-(1,1′-biphenyl)-4,4′-diamine N,N′-Bis(naphthalen-1-yl)-N,N′-bis(phenyl)benzidine
Classification / Family	Hole-transport layer materials, Electron block layer materials, Hole-injection layer materials, Organic light-emitting diodes (OLEDs), OFETs, Organic Photovoltaics, Polymer solar cells, Perovskite solar cells
Purity	*> 99.5% (sublimed)*
Melting point	*279-283 °C (lit.)*
Appearance	*Off-White powder*



m-MTDATA

4,4',4''-Tris[phenyl(m-tolyl)amino]triphenylamine, m-MTDATA, hole-injection buffer layer (HIL) ¥

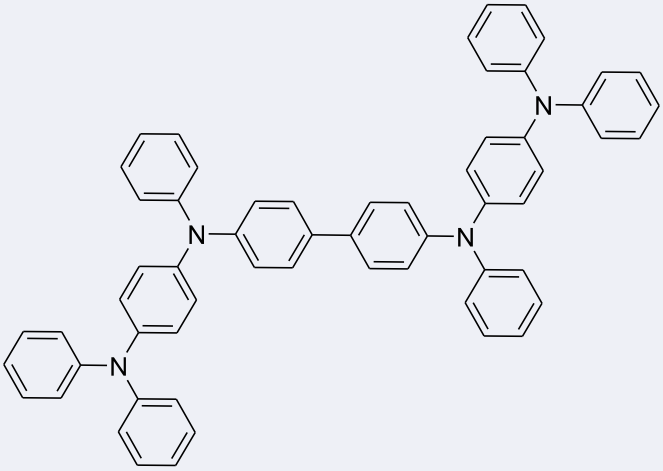
CAS number	124729-98-2
Chemical formula	C57H48N4
Molecular weight	789.02 g/mol
Absorption	λmax 312 nm, 342 nm in THF
Fluorescence	λem 425 nm in THF
HOMO/LUMO	HOMO 5.1 eV, LUMO 2.0 eV [1]
Synonyms	4,4',4''-Tris[(3-methylphenyl)phenylamino]triphenylamine
Classification / Family	Hole-injection materials, Hole transporting materials, Light-emitting diodes, Organic electronics
Purity	*98.7% (sublimed)*
Melting point	*210 °C*
Appearance	*Yellow/white powder*



NPB-DPA

NPB-DPA, N,N'-Bis[4-(diphenylamino)phenyl]-N,N'-di(1-naphthyl)benzidine, hole-injection layer (HIL)

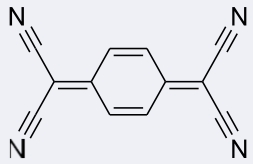
CAS number	910058-11-6
Full name	N,N'-Bis[4-(diphenylamino)phenyl]-N,N'-di(1-naphthyl)benzidine, N,N’-Bis[4-(diphenylamino)phenyl]-N,N’-di-1-naphthalenyl-[1,1’-biphenyl]-4,4’-diamine
Chemical formula	C68H50N4
Molecular weight	923.18 g/mol
Absorption*	λmax 355 nm in DCM
Fluorescene	λmax 515 nm in DCM
HOMO/LUMO	HOMO = 5.2 eV, LUMO = 1.9 eV [1]
Classification / Family	Hole-transport layer (HTL) materials, Hole-injection layer (HIL) materials, Electron-blocking layer materials, OLED materials, Organic electronics.
Purity	*Sublimed* >99% (HPLC);*
Melting point	*n/a*
Appearance	*Off-white crystal/powder*



NPNPB

NPNPB, N,N'-diphenyl-N,N'-di-[4-(N,N-diphenyl-amino)phenyl]benzidine,

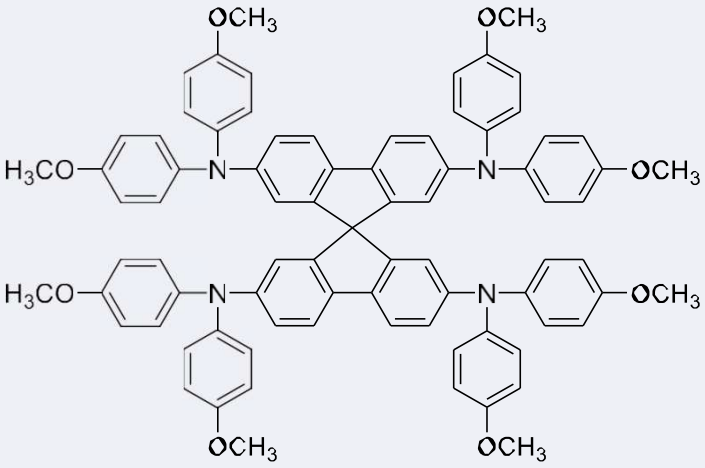
CAS number	936355-01-0
Full name	N,N'-diphenyl-N,N'-di-[4-(N,N-diphenyl-amino)phenyl]benzidine
Chemical formula	C60H46N4
Molecular weight	823.03 g/mol
Absorption	λmax 324 nm in THF
Fluorescence	λem 450 nm in THF
HOMO/LUMO	HOMO = 5.1 eV, LUMO = 3.0 eV [1]
Synonyms	N,N'-Bis[4-(diphenylamino)phenyl]-N,N'-diphenyl-3,3'-biphenyldiamine
Classification / Family	Hole-transport layer materials (HTL), Hole-injection layer materials (HIL), TADF materials
Purity	*>99% (sublimed)*
Melting point	*415.4 °C (DSC onset)*
Appearance	*Yellow-greenish powder*



TCNQ

7,7,8,8-tetracyanoquinodimethane (TCNQ),

CAS number	1518-16-7
Chemical formula	C12H4N4
Molecular weight	204.19 g/mol
HOMO/LUMO	LUMO = 4.5 eV
Synonyms	7,7,8,8-Tetracyanoquinodimethane (2,5-Cyclohexadiene-1,4-diylidene)-dimalononitrile 2,2'-(2,5-Cyclohexadiene-1,4-diylidene)bismalononitrile
Classification / Family	Electron acceptor, Hole-injection materials, Hole transport layer material, Light-emitting diodes, Polymer solar cells, OFETs.
Purity	*>99.0% (sublimed)*
Melting point	*289 °C (dec.)*
Appearance	*Dark yellow to brown crystals/powder*

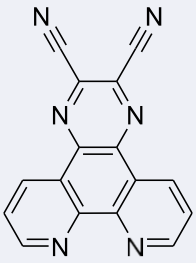


Spiro-OMeTAD (Spiro-MeOTAD)

Spiro-OMeTAD (Spiro-MeOTAD), hole transport layer materials (**HTL**)

2,2',7,7'-Tetrakis[N,N-di(4-methoxyphenyl)amino]-9,9'-spirobifluorene

Full name	2,2',7,7'-Tetrakis[N,N-di(4-methoxyphenyl)amino]-9,9'-spirobifluorene
Synonyms	· Spiro-OMeTAD · Spiro-MeOTAD
CAS number	207739-72-8
Molecular formula	C81H68N4O8
Mw	1225.43 g/mol
UV absorption max	306, 385 nm (in CH2Cl2)
PL max	429 nm (in CH2Cl2)
HOMO / LUMO	HOMO = -5.0 eV (by cyclic voltammetry), LUMO = -2.05 eV (HOMO - Eg)
Eg (optical)	2.95 eV
Purity	*Sublimed: >99.5% (HPLC)*
Melting point	*240 °C (approx.)*
TGA	*>360°C (0.5% weight loss)*
Appearance	*White to pale yellow powder*

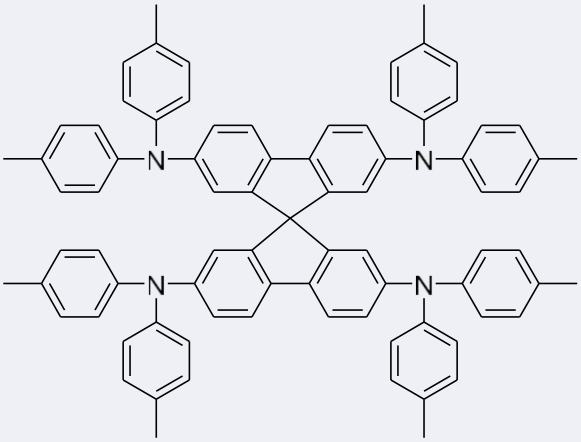


PPDN

PPDN, electron-transport layer (**ETL**)

Pyrazino[2,3-f][1,10]phenanthroline-2,3-dicarbonitrile

CAS number	215611-93-1
Full name	Pyrazino[2,3-f][1,10]phenanthroline-2,3-dicarbonitrile
Chemical formula	C16H6N6
Molecular weight	282.26 g/mol
Absorption	λmax 307 nm in DCM
Fluorescene	λmax 487 nm in DCM
HOMO/LUMO	HOMO = 7.47 eV, LUMO = 3.41 eV (DFT)
Classification / Family	Electron transport layer (ETL) materials, Hole injection layer (HIL) materials, Sublimed materials, Organic electronics.
Purity	*Sublimed >99% (HPLC)*
Melting point	*TGA: 335 °C*
Appearance	*White crystals/powder*

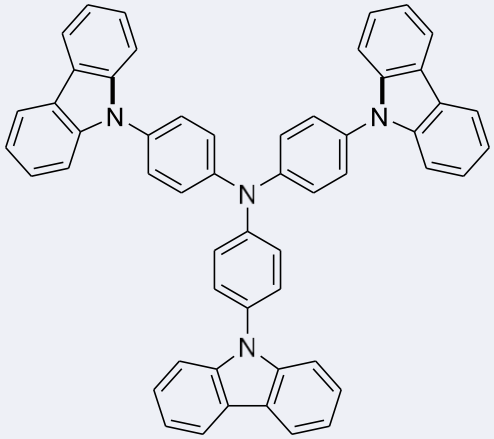


Spiro-TTB

Spiro-TTB, hole-transport layer material in OLED, OPV, and perovskite solar cells.

2,2',7,7'-Tetra(N,N-di-p-tolyl)amino-9,9-spirobifluorene

CAS number	515834-67-0
Full name	2,2',7,7'-Tetra(N,N-di-p-tolyl)amino-9,9-spirobifluorene
Chemical formula	C81H68N4
Molecular weight	1097.43 g/mol
Absorption	λmax 384 nm in DCM
Fluorescence	λmax 413 nm in DCM
HOMO/LUMO	HOMO = 5.25 eV [1]
Classification / Family	Spirofluorene derivative, Hole transport layer materials, Perovskite solar cells, Organic electronics.
Purity	
Melting point	*Tg = 146 °C*
Appearance	*Light yellow powder/crystals*

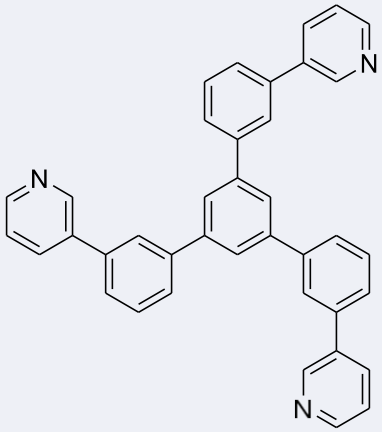


TCTA

tris(4-carbazoyl-9-ylphenyl)amine (TCTA), hole-transport and hole-injection material

green, red and white phosphorescent organic light-emitting diodes

CAS number	139092-78-7
Chemical formula	C54H36N4
Molecular weight	740.89 g/mol
Absorption	λmax 293 and 326 nm (THF)
Fluorescence	λem 385 nm (THF)
HOMO/LUMO	HOMO = 5.83 eV, LUMO = 2.43 eV [1]
Synonyms	TCTA, 4,4',4''-Tris(carbazol-9-yl)triphenylamine Tris(4-carbazoyl-9-ylphenyl)amine
Classification / Family	Hole-injection layer materials, Hole-transporting layer materials, Phosphorescent host materials, Electron-blocking layer materials, Light-emitting diodes
Purity	*>99.5% (sublimed)*
Melting point	*298~300 °C*
Appearance	*White powder/crystals*

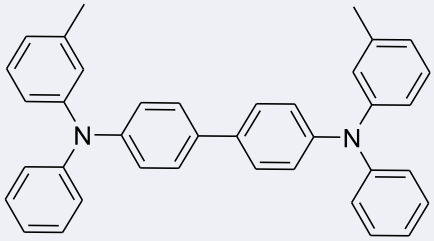


TmPyPB

TmPyPB

1,3,5-Tri(m-pyridin-3-ylphenyl)benzene

CAS number	921205-03-0
Chemical formula	C39H27N3
Molecular weight	537.65 g/mol
Absorption	λmax 254 nm in DCM
Fluorescence	λem 353 nm in DCM
HOMO/LUMO	HOMO 6.75 eV, LUMO 2.75 eV [1]
Synonyms	Tm3PyPB, 1,3,5-Tri(m-pyridin-3-ylphenyl)benzene, 1,3,5-Tris(3-pyridyl-3-phenyl)benzene,
Classification / Family	TADF host materials, Electron transport layer (ETL) materials, Hole-blocking layer (HBL) materials, Phosphorescent Host Materials, Solution-processed OLED maetrials, PHOLEDs, OPV, Perovskite solar cells
Purity	*>99.0% (sublimed)*
Melting Point	*Melting point/range: 195 - 200 °C;*
Colour	*White powder/crystals*

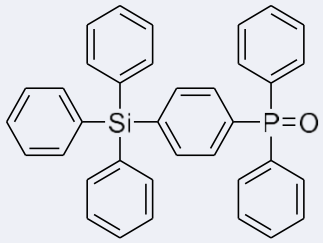


TPD - N,N’-Bis(3-methylphenyl)-N,N’-diphenylbenzidine

N,N’-Bis(3-methylphenyl)-N,N’-diphenylbenzidine, hole transport materials

a blue-violet light emitting material

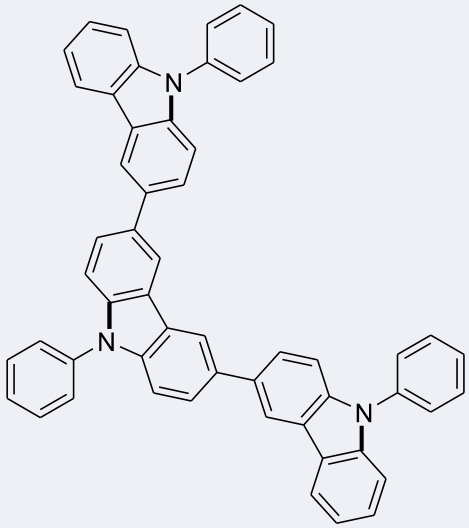
CAS number	65181-78-4
Chemical formula	C38H32N2
Molecular weight	516.67 g/mol
Absorption*	λmax 352 nm in THF
Fluorescence	λem 398 nm in THF
HOMO/LUMO	HOMO = 5.5 eV, LUMO = 2.3 eV
Synonyms	TPD, N,N’-Bis(3-methylphenyl)-N,N’-diphenylbenzidine, N,N'-Diphenyl-N,N'-di(m-tolyl)benzidine, 4,4'-Bis[N-phenyl-N-(m-tolyl)amino]biphenyl
Classification / Family	Hole-injection materials, Hole transporting materials, Phosphorescent host materials, Light-emitting diodes, Organic electronics
Purity	*Sublimed* >99%*
Melting point	*175-177 °C (lit.)*
Colour	*White powder/crystals*



TSPO1

TSPO1, diphenyl[4-(triphenylsilyl)phenyl]phosphine oxide

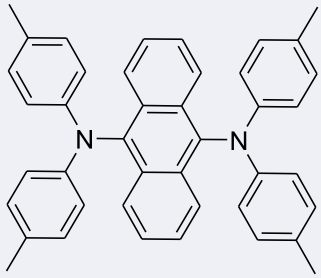
CAS number	1286708-86-8
Full name	Diphenyl[4-(triphenylsilyl)phenyl]phosphine oxide
Chemical formula	C36H29OPSi
Molecular weight	536.67 g/mol
Absorption	λmax 266 nm in DCM
Photoluminescence	λmax 322 nm in DCM
HOMO/LUMO	HOMO = 6.79 eV, LUMO = 2.52 eV; ET = 3.36 eV [1]
Synonyms	Diphenylphosphine oxide-4-(triphenylsilyl)phenyl
Classification / Family	Bipolar host materials, Electron Injection layer (EIL) materials, Hole Blocking layer (HBL) materials, Fluorescent host materials, TADF materials, Organic printing electronics.
Purity	*Sublimed > 99% (HPLC)*
Melting point	*236 °C (lit.)*
Appearance	*White crystals/powder*



Tris-PCz

Tris-PCz hole-transport layer material

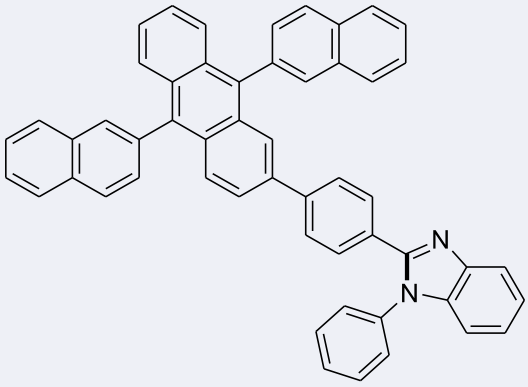
CAS number	1141757-83-6
Full name	9-Phenyl-3,6-bis(9-phenyl-9Hcarbazol-3-yl)-9H-carbazole
Chemical formula	C54H35N3
Molecular weight	725.28 g/mol
Absorption	λmax 305 nm in DCM
Fluorescence	λmax 415 nm in DCM
HOMO/LUMO	HOMO = 5.6 eV, LUMO = 2.1 eV; T1 = 2.7 eV [1]
Synonyms	9,9',9''-Triphenyl-9H,9'H,9''H-3,3':6',3''-tercarbazole
Classification / Family	Fluorescent host materials, Phosphorescent host materials, Hole-transport layer materials, Exciton-blocking layer materials, TADF-OLED materials, Organic electronics
Purity	*Sublimed > 99% (HPLC)*
Melting point	*TGA: >270 °C*
Appearance	*White crystals/powder*



TTPA

9,10-Bis[N,N-di-(p-tolyl)-amino]anthracene, TTPA, green dopant material in TADF-OLED devices.

CAS number	177799-16-5
Full name	9,10-Bis[N,N-di-(p-tolyl)-amino]anthracene
Chemical formula	C42H36N2
Molecular weight	568.75 g/mol
Absorption	λmax 294, 471 nm in DCM
Fluorescene	λem 554 nm in DCM
HOMO/LUMO	HOMO = 5.5 eV, LUMO = 3.1 eV [1]
Synonyms	TTP1; ATTP
Classification / Family	Organic electronics, Hole transport layer materials (HTL), Electron-blocking layer materials (EBL), TADF green dopant materials, TADF-OLEDs
Purity	*Sublimed: >99.0% (HPLC)*
Melting point	*TGA: >280 °C*
Appearance	*Yellow powder/crystals*

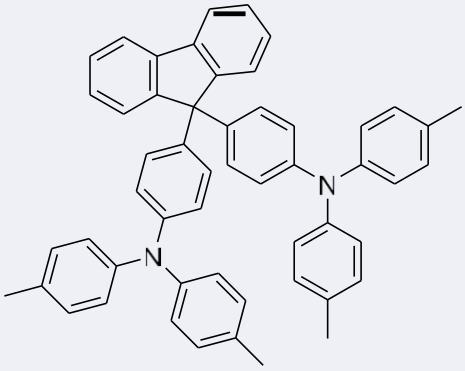


ZADN

ZADN, 2-[4-(9,10-Di-naphthalen-2-yl-anthracen-2-yl)-phenyl]-1-phenyl-1H-benzoimidazole,

electron-transport layer material

CAS number	561064-11-7
Chemical formula	C53H34N2
Molecular weight	698.85 g/mol
Absorption	No data available
Fluorescence	No data available
HOMO/LUMO	HOMO = -6.0 eV, LUMO = -2.9 eV [1]
Synonyms	2-[4-(9,10-Di-naphthalen-2-yl-anthracen-2-yl)-phenyl]-1-phenyl-1H-benzoimidazole
Classification / Family	Electron transport layer (ETL) materials, Solution-processed OLED materials, TADF materials, PHOLEDs, OPV
Purity	*>99.0% (sublimed)*
Melting Point	*352 °C*
Colour	*Light yellow powder*



DTAF

DTAF, or 9,9-di[4-(di-*p*-tolyl)aminophenyl]fluorine, hole transporting layer or electron blocking layer based white-light OLED

CAS number	159526-57-5
Chemical formula	C53H44N2
Molecular weight	708.93 g/mol
Absorption	λmax 304 nm (in THF)
Fluorescene	λem 431 nm(in THF)
HOMO/LUMO	HOMO = 5.31 eV, LUMO = 1.84 eV [1] ET = 2.87 eV
Full chemical name	9,9-di[4-(di-p-tolyl)aminophenyl]fluorine
Synonyms	4,4′-(9H-fluorene-9,9-diyl)bis(N,N-di-p-tolylaniline), 4,4'-(9H-fluoren-9-ylidene)bis[N,N-bis(4-methylphenyl)-benzenamine
Classification / Family	TADF exciplex, Hole transporting layer (HTL) materials, Electron blockingt layer (EBL) materials
Purity	*Sublimed >99.0% (HPLC)*
Melting point	*mp = 374 °C (DSC)*
Appearance	*White powder/crystals*

製造元

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