

(19) (KR)  
(12) (B1)

(21) 10 - 2000 - 0060968 (65) 2002 - 0030371  
(22) 2000 10 17 (43) 2002 04 25

(73) 575

(72) ABT106 - 1602

ABT206 805

ABT110 1301

APT110 1301

105

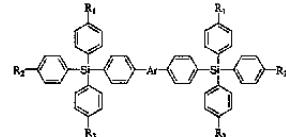
1000

1888

(54)

1

[ 1 ]



1 , Ar 6 20 , 1 20 6 20 , 1 20 6 20 , R<sub>1</sub>, R<sub>2</sub> R  
 3 , 1 20 , 1 20 6 20 , 1 20 6 20 , 1 20 6 20 .

EL, ,

[ ]

, (Or  
 ganic Electroluminscenece Divece; OELD)

[ ]

가 가

(Cathode Ray Tube: CRT), (Electroluminescene Display: ELD), (Light Emitting Diode: LED), (Plazma Display Panel: PDP)  
 (Liquid Crystal Display: LCD)

가 , , , , ,  
 , , , , ,  
 가 , , , , ,  
 가 , , , , ,  
 가 , , , , ,

가  
 , 1987 (Eastman Kodak) 200 V , 가 , 가  
 , , , , ,  
 , , , , ,  
 , , , , ,  
 , , , , ,

EL (electroluminescene device: EL device) (emmitter layer) EL  
 EL

EL  
 , , , , ,  
 , , , , ,  
 , , , , ,

, 가 , , , ,  
가

EL

가

EL

(anode) 가

가

, , , , ,

EL

가

(exiton)

가

, 1987

(Eastman Kodak)

(Appl. Phys. Lett. 51, 913, 1987).

,  
(Idemitsu: 出光興山)  
[H. Tokilin, H. Higashi, C. Hosokawa, EP 388, 768(1990)],  
[Pro. SPIE, 1910, 180(1  
9930].

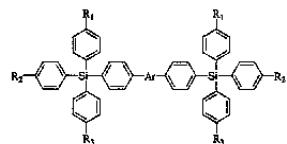
가

(triarylsilylphenyl)

1

(triarylsilylphenyl)

[ 1 ]

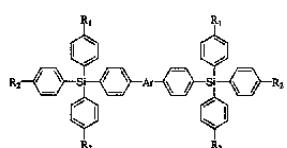


1 , Ar 6 20 , 1 20 , 6 20 , 1 20 , 6 20 , 1 20 , 6 20 , R<sub>1</sub>, R<sub>2</sub> R  
 3 , 1 20 , 1 20 , 6 20 , 1 20 , 6 20 , 1 20 , 6 20 , .

1

1

[ 1]



1 , Ar 6 20 , 1 20 , 6 20 , 1 20 , 6 20 , 1 20 , 6 20 , R<sub>1</sub>, R<sub>2</sub> R  
 3 , 1 20 , 1 20 , 6 20 , 1 20 , 6 20 , 1 20 , 6 20 , .

1

(triarylsilylphenyl)

4

가

1

가

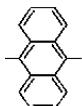
가

1 Ar

2

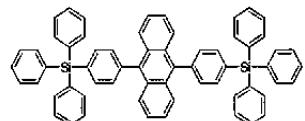
, R<sub>1</sub>, R<sub>2</sub> R<sub>3</sub>

[ 2]



3

[ 3]



1

EL

(ITO), (SnO<sub>2</sub>), (ZnO)

(TPD), N,N' - (enzenidine; - NPD) , N,N' - (3 - ) - N,N' - - [1,1' - ] - 4,4' - (N,N' - di(naphthalene - 1 - yl) - N,N' - diphenyl - b

1

EL 가

Li, Mg, Al, Al - Li, Ca, Mg - In, Mg - Ag

ion layer : HIL)

2

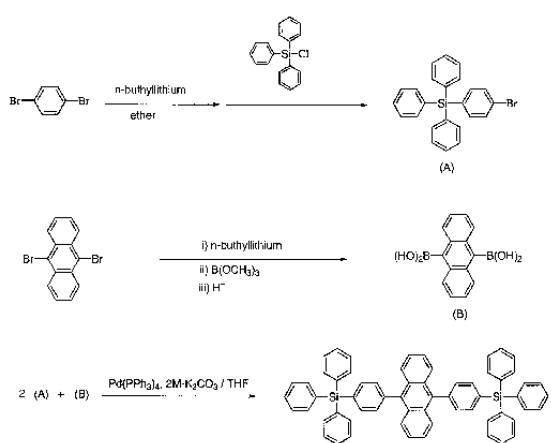
(hole inject

( : - NPD) (ITO)

CuPc, m - MTDATA, I - TNATA

3

[ 1 ]



1

ITO, ITO N,N' - (3 - ) - N,N' - - [1,1' - ] - 4,  
4' - (TPD) 500 .  
, 3 280 .  
, 3 350 .  
, Al : Li 1500 .

2

ITO	, ITO	2 - TNATA	400
- NPD		75	,
3		350	
	3		350
	Al : Li	1500	.

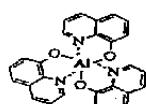
3

ITO	, ITO	N,N' - (3 - ) - N,N' - [1,1' - ] - 4,
(TPD)	500	,
,	3	280
,	6	350
Al : Li	1500	.

4

ITO	, ITO	2 - TNATA	400
- NPD		75	,
5		350	
	3		350
	Al : Li	1500	.

[ 4]



3 cd/A

- (turn-on) 5 V , (0.14, 0.09) ,

(57)

1.

2

3.

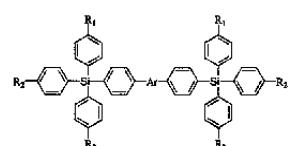
4.

5.

1

(triarylsilylphenyl)

[ 1 ]



, Ar 6 20 , 1 20 , 6 20 , 1 20 , 6 20 , 1 20 , 6 20 , 1 20 , 6 20 , R<sub>1</sub>, R<sub>2</sub> R

6.

5

1 Ar

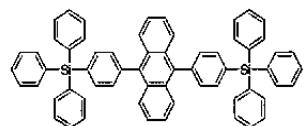
7.

5

,

3

[ 3]



8.

5

9.

10.

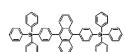
8

,

3

:

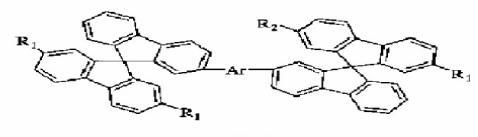
[ 3]



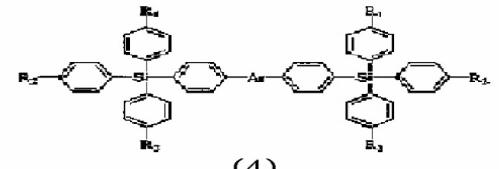
专利名称(译)	用于有机电致发光器件的蓝色发光化合物和使用其的有机电致发光器件		
公开(公告)号	<a href="#">KR100377575B1</a>	公开(公告)日	2003-03-26
申请号	KR1020000060968	申请日	2000-10-17
申请(专利权)人(译)	三星SD眼有限公司		
当前申请(专利权)人(译)	三星SD眼有限公司		
[标]发明人	KIM SUNGHAN 김성한 YU HANSUNG 유한성 KWON SOONKI 권순기 KIM YUNHI 김운희 SHIN DONGCHEOL 신동철 LEE HYUNWOOK 이현욱 JEONG HYUNCHEOL 정현철		
发明人	김성한 유한성 권순기 김운희 신동철 이현욱 정현철		
IPC分类号	H01L51/00 H01L51/30 H01L51/50 C09K11/06		
CPC分类号	H01L51/5012 H01L51/0058 C09K11/06 Y10S428/917 H01L51/0094 H01L51/0081		
代理人(译)	PARK , 常树		
其他公开文献	KR1020020030371A		
外部链接	<a href="#">Espacenet</a>		

#### 摘要(译)

一种用于电致发光显示装置的蓝色电致发光化合物，包括螺二芴或三芳基甲硅烷基苯基，以及使用这种蓝色电致发光化合物的显示装置，从而提高电致发光显示装置的发光效率和亮度。



(1)



(4)