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C09K 11/06

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(11)
(24)

2003 03 26
10 - 0377575
2003 03 12

(21)
(22)

10 - 2000 - 0060968
2000 10 17

(65)
(43)

2002 - 0030371
2002 04 25

(73)

575

(72)

APT106 - 1602
APT206 - 905
APT110 1301
APT110 1301
1405
1033
1002

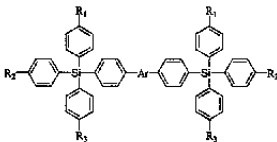
(74)

:

(54)

1

[1]



3, Ar 6 20, 1 20 가 6 20, R₁, R₂, R
1 20 가 6 20 1 20 가 6 20
1 20 가 6 20

EL,

[]

(Or
ganic Electroluminescence Device; OLED)

[]

가 가

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

가
(back light)
가 가

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

(electroluminescence device: EL device) (emitter layer) EL
EL

EL

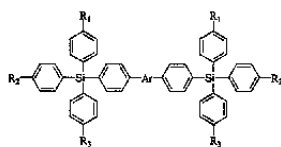
가 가 가

가 가 . , , , ,
 EL 가
 EL 가 (anode)가 , , , ,
 EL 가
 가
 (exiton) , 가
 , 1987 (Eastman Kodak) (Appl. Phys. Lett. 51, 913, 1987).
 (Idemitsu: 出光興山) 가 가
 [H. Tokilin, H. Higashi, C. Hosokawa, EP 388, 768(1990)],
 가 [Pro. SPIE, 1910, 180(1
 9930)].

가

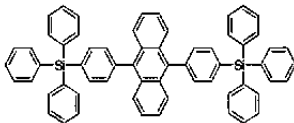
(triarylsilylphenyl)

1 (triarylsilylphenyl)
 [1]



3

[3]



1

EL

(ITO), (SnO₂), (ZnO)

(TPD), N,N' - (3 -) - N,N' - [1,1' -] - 4,4' -
enzidine; - NPD) - 1 -) - N,N' - (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)

가

(: - NPD)

(hole inject
(ITO)

CuPc, m - MTDATA, I - TNATA

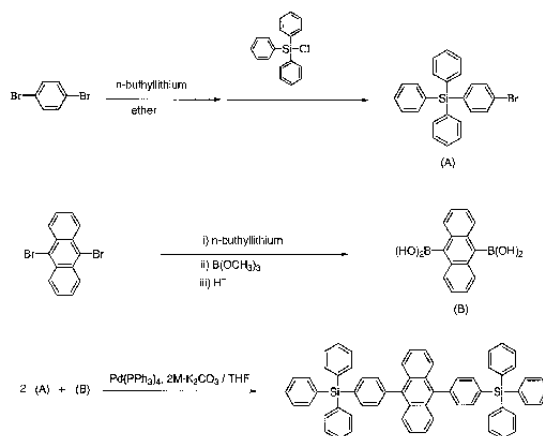
3

1, 1,4 - (1,4 - bromobenzene)
 (diethylether), 1 (n - butyllithium) - 40 가
 1 (triphenylsilylchloride) 가 4 (A) 95 %

9,10 - (9,10 - dibromoanthracene) (diethylether)
 , 2 (n - butyllithium) - 40 가
 , 10 - 70 5 (trimethylborate) 가
 (4N H₂SO₄) 2
 (B) 20 %

(B) 2 (A) THF , () (0.6
 1 mol%) 2M K₂CO₃ 2,5 가 24 3
 80 %

[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
(TPD)

, ITO

500

N,N' -

(3 -

) - N,N' -

- [1,1' -] - 4,

3

280

6

350

Al : Li

1500

4

ITO

, ITO

2 - TNATA

400

- NPD

75

5

350

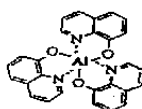
3

350

Al : Li

1500

[4]



3 cd/A

- (turn - on)

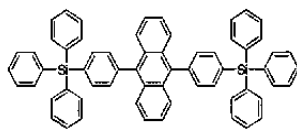
5 V

(0.14, 0.09)

5 ,

3 :

[3]



8.

,

5

.

9.

10.

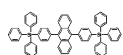
8 ,

5

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	KR100377575B1	公开(公告)日	2003-03-26
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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 김윤희 SHIN DONGCHEOL 신동철 LEE HYUNWOOK 이현욱 JEONG HYUNCHEOL 정현철		
发明人	김성한 유한성 권순기 김윤희 신동철 이현욱 정현철		
IPC分类号	H01L51/00 H01L51/30 H01L51/50 C09K11/06		
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代理人(译)	PARK , 常树		
其他公开文献	KR1020020030371A		
外部链接	Espacenet		

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，包括螺二苄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。

