

(19)  
(12)

$$\begin{pmatrix} (KR) \\ (A) \end{pmatrix}$$

(51) 。 Int. Cl. <sup>7</sup>  
C09K 11/07

(11)  
(43)

2003 - 0018864  
2003 03 06

(21) 10 - 2001 - 0053449  
(22) 2001 08 31

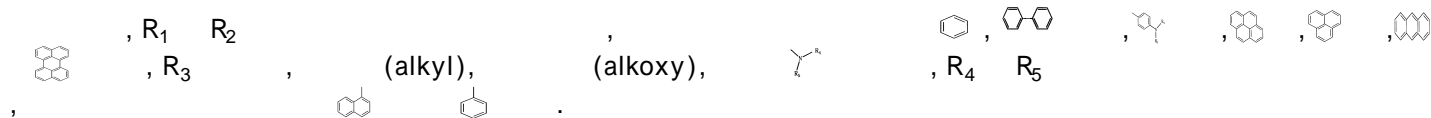
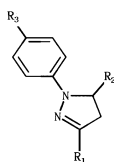
(71) 557 - 6

[illegible]

(74)

1

(54)

[illegible]

1

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가

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/

(Organic Electroluminescence device; OLED)

c Electroluminescence device; OLED)

.

EL

(Electroluminescence device)

(Liquid Crystal Display; LCD),

y; LCD),

(Plasma Display Panel; PDP),

(Field Emission Display; FED)

; FED)

, LCD

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가 ITO

가 Mg

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가

(conjugated)

(host)

가

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(naphthalene),

alene),

(anthracene),

(phenanthrene),

(pyrene),

(benzopyrene),

(ch

risene),

(picene),

(carbazole),

(fluorene),

(biphenyl),

(terphenyl),

(quarterphenyl),

(triphenylene oxide),

(dihalobiphenyl),

(trans

stilbene), 1,4 -

(diphenyl butadiene)

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가 1 $\mu$ m

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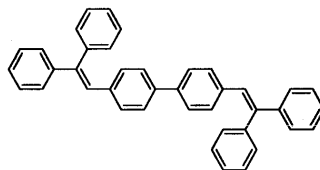
.

(550nm) (Alq3), BeBq2, Almq, (460nm),  
 ZnPBO, Balq, (styrylarylene) DPVBi, (oxadiaz  
 ole) OXA - D BczVBi가, (590nm) 4 - (  
 - 2 - - 6 - (p - ) - 4H - (4 - (dicyanomethylene) - 2 - methyl - 6 - (p - dimethyl amin  
 ostyryl) - 4H - pyran: DCM), 630nm DCM DCJTB .  
 , 가 - (  
 guest - host) .

1 DPVBi (

5,503,910      5,536,949      )      .

1

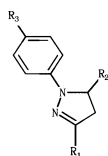


DPVBi

가

$\frac{1}{2} \left( \frac{1}{2} + \frac{1}{2} \right) = \frac{1}{2}$

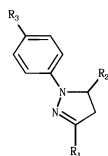
2



, , R<sub>1</sub> R<sub>2</sub> , (alkyl), (alkoxy), , R<sub>4</sub> , R<sub>5</sub> , , , , .

, R<sub>1</sub>, R<sub>2</sub>, R<sub>4</sub> / R<sub>5</sub> , , , , , R<sub>1</sub>, R<sub>2</sub> R<sub>3</sub> 가 3

oline) 가 (pyraz



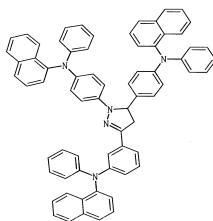
, , R<sub>1</sub> R<sub>2</sub> , (alkyl), (alkoxy), , R<sub>4</sub> , R<sub>5</sub> , , , , .

, R<sub>1</sub>, R<sub>2</sub>, R<sub>4</sub> / R<sub>5</sub> (phenyl) , 1 10, 1 5  
(alkyl), (aryl), (alkoxy), (aryloxy), (CN), 3 (tert - amine)  
가 3 R<sub>1</sub>, R<sub>2</sub> R<sub>3</sub>

(pyrazoline)

3

3



(N - , - N - (1 - 3 ) ) , N - (4 - ) - N - - 1 - 1 4 - (KOH) , - N - (4 - - 1 - ) - N - - 1 - 가 3 .

1 , 1 (hole injection, ) (10) 1 (12) (14) , 1 (12) 가 2 (16) (electron inj ection, ) 1 (12) 2 (12, 16) 가 , 1 2 (12, 16) 가 (14) , 1 (12) (10) .

(10) , 1 (12) , 1 (In dium Tin Oxide; ITO), , (Ag) 가 2 (16) (electr on injection, , ) , 가 Al, Mg, Ca LiAl, Mg - Ag .

2 , 2 1 2 (12, 16) 가 (14) , 1 2 (12, 16) (14) (21, 22) (25, 26) (21, 22) (12) (21) , 4,356,429 (porphyrinic) (22) , N,N' - - (1 - ) - N,N' - 가 , R<sub>1</sub>, R<sub>2</sub> R<sub>3</sub> 가 3 2 .

(25, 26) (16) , (8 -  
 ) ( , Alq3) (14)  
 , (14), (21, 22)  
 (25, 26) 5 500nm  
 가 .

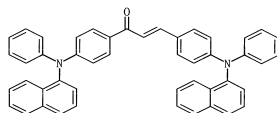
(21, 22) / (25, 26)  
 ,  
 .  
 , 1 2  
 , -  
 , .

[ ]

N - (4 - ) - N - - 1 -  
 N - - N - (1 - ) )  
 (ethanol) 2  
 24  
 . 90% .

[N - (4 - acetylphenyl) - N - phenyl - 1 - naphthylamine] 1 4 - (  
 ( [4 - (N - Phenyl - N - (1 - naphthyl) - amino)benzaldehyde] 1 ,  
 , (KOH) 1.5 200ml 가 .  
 , 4 560g

[ 4]



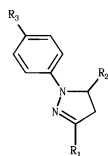
tylamine 1 4 , - (unsaturated keton) 1 N - (4 - hydrazinophenyl) - N - phenyl - 1 - naph  
 2  
 3 24 ,  
 600g . 63% .









가 . ,  
 가 ,  
 .

(57)

1.

[ 2]



, ,  $R_1$ ,  $R_2$ ,  $R_3$ , (alkyl), (alkoxy), ,  $R_4$ ,  $R_5$ , , , , , , .

2.

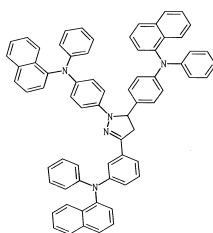
1,  $R_1$ ,  $R_2$ ,  $R_3$  3.

3.

1,  $R_1$ ,  $R_2$ ,  $R_4$  /  $R_5$ , , , , , , 3.

4.

1, 가 .



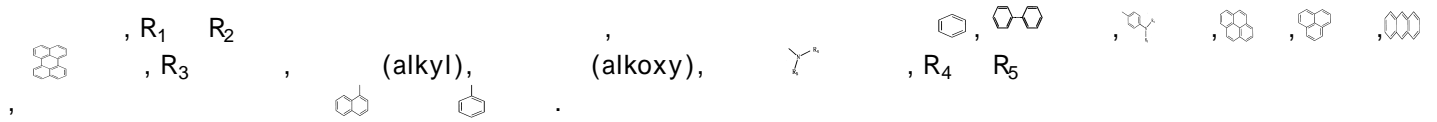
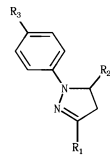
5.

1 ;

2 ;

2, 1 2

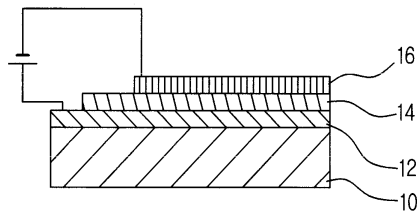
[ 2]



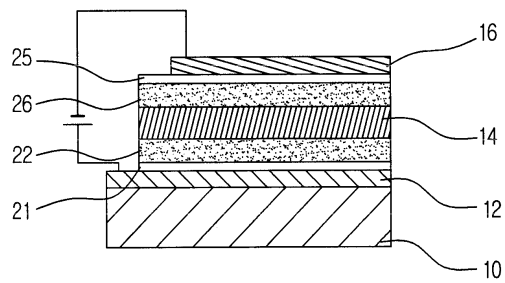
6.

5,  $R_1$ ,  $R_2$ ,  $R_3$ , 3, 가

1



2





专利名称(译)	有机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="#">KR1020030018864A</a>	公开(公告)日	2003-03-06
申请号	KR1020010053449	申请日	2001-08-31
[标]申请(专利权)人(译)	娜我比可隆株式会社		
申请(专利权)人(译)	Neoview的隆有限公司		
当前申请(专利权)人(译)	Neoview的隆有限公司		
[标]发明人	KIM JEONG SOO 김정수		
发明人	김정수		
IPC分类号	C09K11/07		
CPC分类号	C09K11/06 C09K2211/1007 C09K2211/1011 C09K2211/1014 C09K2211/1044 H01L51/0059 H01L51/0067 H01L51/5012 H05B33/14 Y10S428/917		
代理人(译)	KIM , YOUNG DONG 李相HUN		
其他公开文献	KR100446466B1		
外部链接	<a href="#">Espacenet</a>		

#### 摘要(译)

本发明提供包含有机发光层的有机电致发光器件，所述有机发光层包含表示为第二电极的新型有机发光化合物和具有第一电极的以下化学式，并且涉及有机发光化合物的本发明的具有高功函数其中耐热性高并且实现高清晰度的发光颜色相和包括其的有机电致发光器件，并且位于第一和第二电极之间。在上式中，R<sub>1</sub>和R<sub>2</sub>可以相同或不同。和R<sub>4</sub>取代或未取代的,,,或R<sub>3</sub>是氢，烷基，烷氧基或R<sub>5</sub>可以相同或不同它被取代或它不被取代为...有机发光化合物，有机电致发光器件，耐热性，空穴传输层，吡啶啉衍生物。

