

(19) (KR)
(12) (A)

(51) Int. Cl.⁷
G02F 1/1335

(11)
(43)

10-2004-0095670
2004 11 15

(21) 10-2004-0031642
(22) 2004 05 06

(30) JP-P-2003-00128902 2003 05 07 (JP)

(71) 가 가
6-19-20

(72) 가 4000 가
가 4000 가
가 4000 가

(74)

:

(54)

() 가 LCD

() 가 , , , LCD , , CIE
y 0.60 LCD

(LCD) ()
LCD LCD , ,
, (LCD) 가 , ,
CRT CR

T

, C.I. (Pigment Yellow) 139 C.I. (Pigment Gre
en) 36 , 540nm

가 . , 540nm 70% , 490nm C.I. 50 90% 185
 C.I. 36 y 0.520 가 (,
 3)

, 가 TV 가 ,

가 (, 4 6), y 0.6

AI (AI) (7 10).

(1)

10-142796

(2)

9-203808

(3)

10-160928

(4)

2002-303718

(5)

2002-323614

(6)

2002-372616

(7)

2001-115049

(8)

2003-4930

(9)

2002-107531

(10)

9-328621

LCD, TV

LCD 가

<1> 가 ,

LCD

, , CIE y

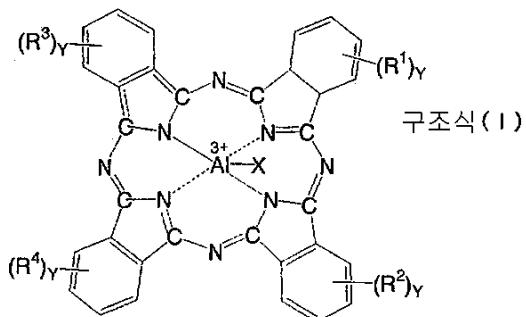
0.60

LCD

<2> <1>

가 (I)

LCD

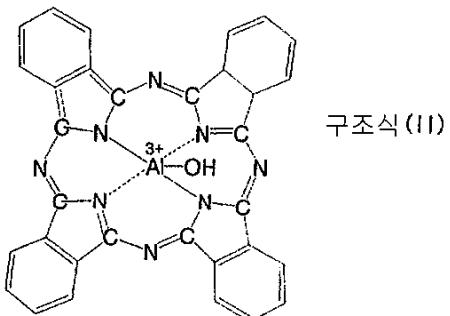


(
1 4 (I) , X OH, Cl , Br , R 1 , R 2 , R 3 , R 4
Y 0 4 .)

<3> <1>

가 (II)

LCD



<4> <1> <3> 109, C.I. , 110, C.I. 가 C.I. 83, C.I. 93, C.I.
154, C.I. 180, C.I. 185 139, C.I. 1 150, C.I. L
CD

<5> <1>

<4>

LCD

가 3 20

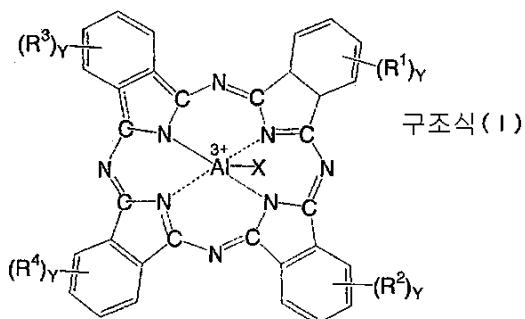
<6> <1> <5> 3 , 1 , 1 , 1 , 2 , 1 , 2 , 3 , 1
1 , , , , , , , , ,
2 , , , , , , , , ,
LCD

<<LCD

>>

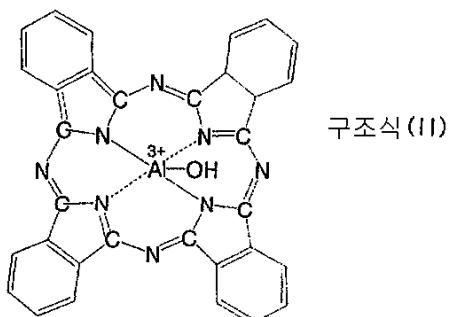
LCD 가 (가 ,) 가 . LCD .
 가 .
 가 .
 CIE y 0.60 . 가 . 0.65 y 0.74 . y
 가 .
 0.14 x 0.34 .
 .
 LCD

LCD , , , 1
 , , , , .
 , 가 , , 가 .
 , , (I) . ,



$$\begin{array}{ccccccc}
 & \text{(I)} & , X & \text{OH, Cl} & \text{Br} & . \text{R}^1, \text{R}^2, \text{R}^3 & \text{R}^4 \\
 1 & 4 & & & . & . \text{Y} & 0 & 4
 \end{array}$$

(I) . . . 2 가 OH (III)



, 1, 2, , C.I. 7, 36, 37

, C.I.

9 5가 11, 24, 31, 53, 83, 93, 99, 108, 109, 110, 138, 139, 147, 150, 151, 154, 155, 167, 180, 185, 19
 , C.I. 83, 93, 109, 110, 139, 150, 154, 180 18
 , 가 139, 150, 180 185
 . 1 2

LCD, 20%, 35%, 50%, ., ,

10 % , 20 %

, 가 ,

1 , 75 (3)

2 3

() , 2 3

1

W005, W017(), KA 400, EFKA 401, EFKA 450(), 8, 15, 9100(), ; EFKA - 46, EFKA - 47, EFKA - 47EA, EFKA 100, EFKA 6, 3000, 5000, 9000, 12000, 13240, 13940, 17000, 24000, 26000, 28000 (가) ; W004,

가); L31, F38, L42, L44, L61, L64, F68, L72, P95, F77, P84, F
87, P94, L101, P103, F108, L121, P-123() S-20()

가

LCD

가

1
가

가

59-44615

54-34327
59-53836

58-12577
59-71048

54-25957

가

() 가 / () .
2,2- - (4-) -

가

() , 2- .

가

7-140654

2- - 3-

() .

/

/ / , 2- .

/ / / /

가

, 가가 30 200

가

LCD

가

가 %가 , 80 % , LCD 20 60 % . 가 5 % , 가 5 80

LCD

가

가

, () .

, COOH , OH , .

가

, OH
가

, 2-

COOH , OH

)

OH

6-102669 ,

6-1938 ,

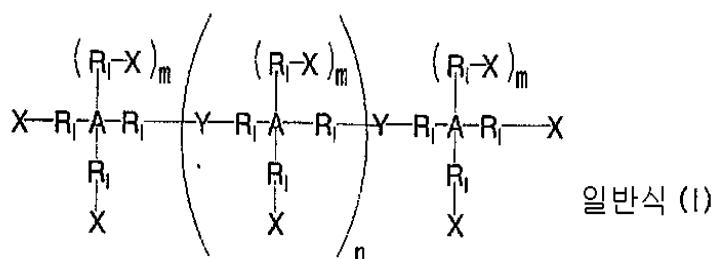
. COOH

가

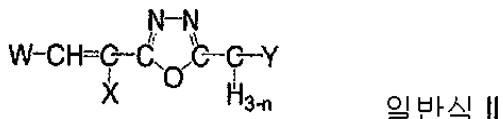
NR (가 가); Photomer 6173(COOH
rethane acrylic oligomer, Diamond Shamrock Co., Ltd.)
가가 가 가), P , 가 가 CF200 R-264, KS 106(가 가) 가 가

), Ebecry13800(가 가)

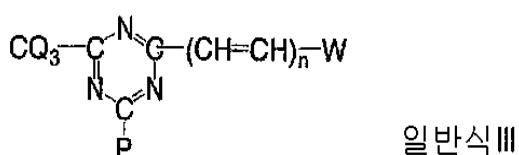
10-62986 가 (1) (2), ()



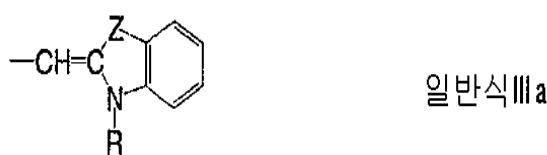
LCD , 1 . ,
- S - , 3 - , 1
. , - S - . ,
- S - ,
57-6096 II 2- - 5- - 1,3,4-



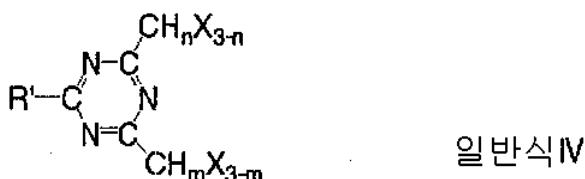
II , W , X ,
, Y , . n 1 3 .
II , 2- - 5- - 1,3,4- , 2-
-5- (p-)-1,3,4- , 2- -5- (p-)-1,3,4-
. .
-s- , 59-1281 III
-s- , 53-133428 IV
- (-1-)-4,6- - -s- V 4- (p-)-2
-s- .



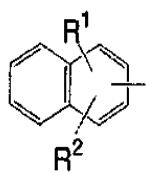
(R)₂, III -OR(, R , Q Br Cl , P -CQ₃(Q Br Cl), -NH₂, -NHR, -N . W .) .



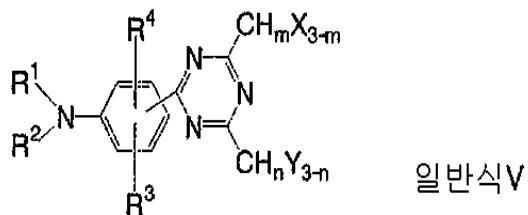
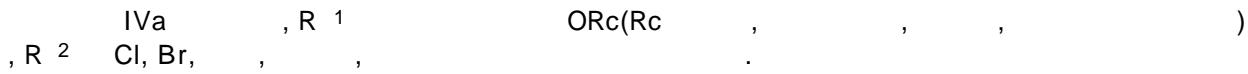
IIIa , Z -O- -S- , R



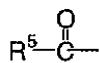
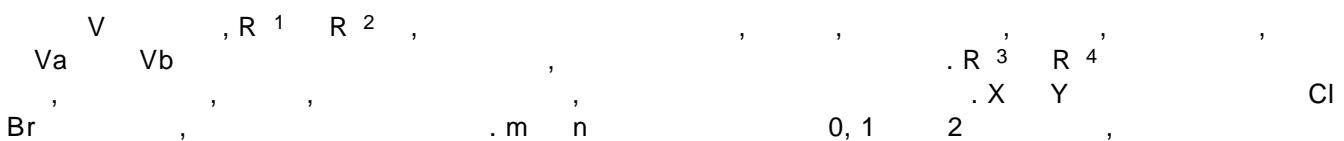
IV , X Br Cl . m n 0 3 . R'



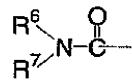
일반식 IVa



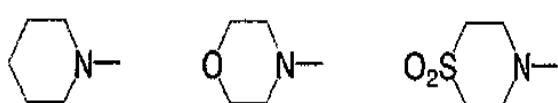
일반식



일반식 V_a



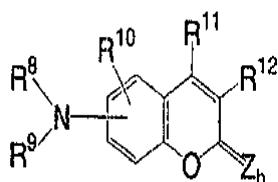
일반식 V_b



, 2,4- ()-6-(1-p- , 2,4- ()-6-p- -s-
-6-p- -s- , 1,3- ()-s- , 2- -4-

IV , 2-(4- - - 1-)-4,6- - , 2-(- 1-)-4,6- - - -s-
, 2-(4- - -s- , 2-(4- - - 1-)-4,6- - -s- , 2-[4-(2-
)- - 1-]-4,6- - -s- , 2-[4-(2-)- - 1-]-4,6- - -s- , 2-(2-
- -s- , 2-[4-(2-)- - 1-]-4,6- - -s- , 2-(6- - 5- - -2-)-4,6- -

3- , , , VI



일반식 VI

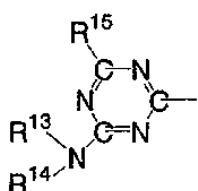
VI, R⁸ , 1 8 , 6 10 (, 6 10 , , Vla

(Vla , , , , , Vla , ,)

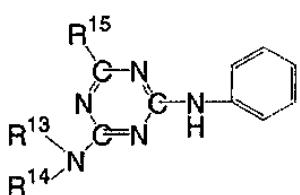
8 , R¹⁰ R¹¹ , , , 1 8 (, , , , , ,), 1
), 1 8 (, , , , , ,), 6 10 (, , , , , ,)
), -N(R¹⁶)(R¹⁷), , (, Cl, Br, F) .
 , , , -N(R¹⁶)(R¹⁷), Cl .

), 18 Vla R¹⁵, , , , 18 (, , , , , 6, 10, (), N(R¹⁶)(R¹⁷), (, Cl, Br, F) .

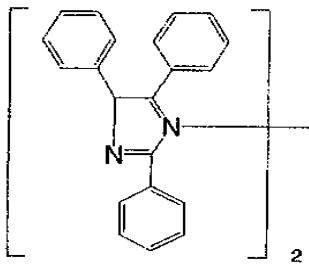
3- }-3- 가 . , VII VII R¹³, R¹⁴ R¹⁵ { (s- -2-)
 R¹³, R¹⁴, R¹⁵ . Vla



일반실 Via



일반시VII



| | | | | | | | |
|----------------|------------------|----------------|----------------|------|------|---------|-------|
| , 2-(o-)-4,5- | , 2-(o-)-4,5- | , 2-(p-)-4,5- | , 2-(p-)-4,5- | | | | |
| , 2-(o-)-4,5- | , 2-(2,4-)-4,5- | . | , 2-(p-)-4,5- | | | | |
|)-4,5- | | |)-4,5- | | | | |
| , | | | | | | | |
| , | | | 2,367,660 | | | | |
| , | 2,448,828 | 2,367,661 | 2,367,670 | | | | |
| , | | | 2,722,512 | | | | |
| , | 3,549,367 | 3,046,127 | 2,951,758 | | | | |
| 51-48516 | | / | /p- | | | | |
| 가 | 가 | -SP-150. | 151. | 170. | 171. | N-1717. | N1414 |
| | | -s- | | | | | |

LCD 가 0.1%, 10.0% 가 0.5%, 5.0% 가 0.1% .

LCD (Liquid Crystal Display) is a type of display technology used in various electronic devices.

LCD

(

, 3- , 3- , 2- , , , , ,

가

LCD

가

가

가

(BASF)

, L10, L31, L61, L62, 10R5, 17R2, 25R2, 304, 701, 704, 901, 904,
 150R1 ; EF301, EF303, EF352(); 가 F-141, F
 -142, F-143, F-144(가가 가 가); W004, W005,
 W017() ; EFKA-46, EFKA-47, EFKA-47EA, EFKA 100, EFKA
 400, EFKA 401, EFKA 450(,), 6, 8,
 15, 9100() ; 3000, 5000, 9000, 120
 00, 13240, 13940, 17000, 24000, 26000, 28000 (가 가
); L31, F38, L42, L44, L61, L64, F68, L72, P95, F77, P84, F87,
 P94, L101, P103, F108, L121, P-123() S-20();

, N-(2-, 3-, 3-) -3-, (2-, 3-, 3-) -3-, N-(2-, 3-, 3-) -3-,
 , 2-(3,4-, 3-, 3-)) -3-, ; 2,2- (4-, 6-t-, 6-t-, 2,6- -t-,
 ; 2-(3-t-, 5-, 2-, 5-) -5-, ;

LCD

1000

가

LCD

$$-6-t- \quad , \quad 2,2'- \quad (4- \quad -6-t- \quad , \quad 2- \quad , \quad t- \quad , \quad , \quad 4,4'- \quad . \quad (3)$$

LCD

가

가

1

LCD

• 2 • 3

가

, 0.1 10mm

, T.C.Patton 'Paint Flow and Pigment Dispersion'(1964 John Wiley and Sons)

<< >>

LCD , 3

가 / , 3

g , h , i

LCD , CIE y CIE y 0.60

가 0.001 10 %, 0.01 1 %가

LCD , TV (LCD)

(1)

/ 80

(30000, 가 120)

(II) 33

· C.I. 185 67

500

가

(DPHA) 80

· 4- [o- -p-N,N- ()]2,6- ()-S- 5
· 7- [{4- -6- ()-S- -2- }]-3-

2

0.01

500

LCD
가 $2.0\mu\text{m}$ 가 , 120

2

365nm 가 가 100μm 300mJ/cm², 26 60
 20, 220 60
 185(67%) 254/ PR177(=50/50 100%), 15:6/
 23(=95/5) 100 LCD

(가)

(a) 가

가 가) CIE (x , y) 가 . 1 .

(b) 가

가 10 120 10
가 10 120 10

$$(\quad 2 \quad 4 \quad 1 \quad 2)$$

1) , LCD 1 가 . 가 , 1 . , (,

[1]

| | (*2) | (*3) | x | y | [μm] | [sec] | |
|---|-------------------------|----------------------|--------|-------|-------|-------|----|
| | | | | | | | |
| 1 | Al-phtal(*1) 33% | PY-185 67% | DPHA | 0.255 | 0.690 | 2.0 | 20 |
| 2 | Al-phtal(*1) 50% | PY-139 50% | DPHA | 0.255 | 0.690 | 1.9 | 20 |
| 3 | Al-phtal(*1)/PG7 30/30% | PY-139 40% | M-1960 | 0.255 | 0.690 | 2.2 | 60 |
| 4 | Al-phtal(*1) 40% | PY-139/PY-150 30/30% | M-1960 | 0.255 | 0.690 | 2.3 | 60 |
| 1 | PG-7 60% | PY-139/PY-150 20/20% | DPHA | 0.255 | 0.690 | 2.9 | 20 |
| 2 | PG-36 80% | PY-139/PY-150 10/10% | DPHA | 0.255 | 0.690 | 5.9 | 20 |

*1: Al-phtal

*2: PY, PG C.I. , C.I. . , %

*3: M-1960 M-1960(가 가)[(I)
] :

1 , 2.0 μ m

3

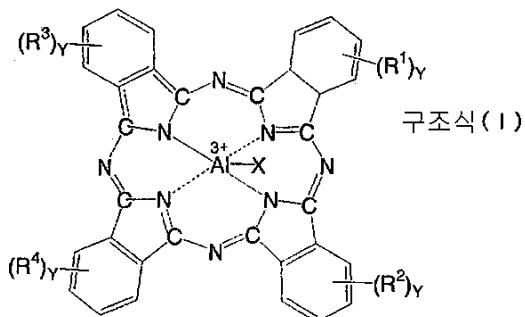
가 , LCD

(57)

1. 가 , , , LCD

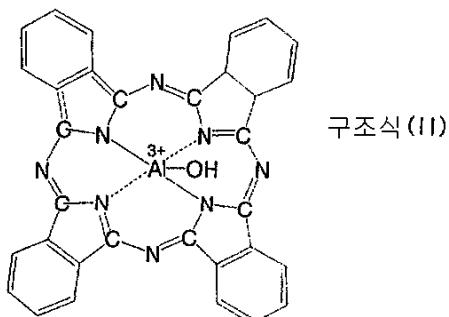
0.60 , , CIE y
LCD

2. 1 , 가 (I) LCD



(1 4 (I) , X OH, Cl , Br . R 1 , R 2 , R 3 R 4 . Y 0 4 .)

3. 1 , 가 (II) LCD



4. 1 3 109, C.I. , 110, C.I. 가 C.I. 83, C.I. 93, C.I.
154, C.I. 180, C.I. 139, C.I. 150, C.I.
LCD

5. 1 4 , 가 3 20
LCD

6. 1 5 LCD , , , 1 , , , 1 2 , , , 1 2 3 , , , 1

2 , , , 1 3 , , , 1

| | | | |
|----------------|--|---------|------------|
| 专利名称(译) | 用于液晶显示装置的可固化绿色组合物和滤色器 | | |
| 公开(公告)号 | KR1020040095670A | 公开(公告)日 | 2004-11-15 |
| 申请号 | KR1020040031642 | 申请日 | 2004-05-06 |
| [标]申请(专利权)人(译) | 富士胶片电子机产业化可否让这个夏 | | |
| 申请(专利权)人(译) | 富士胶片电子机产业化可否让这个夏 | | |
| 当前申请(专利权)人(译) | 富士胶片电子机产业化可否让这个夏 | | |
| [标]发明人 | OSADA SHUICHIRO 오사다슈이치로 YAMASHITA SHIE 야마시타시에 | | |
| 发明人 | 오사다슈이치로 야마시타시에 | | |
| IPC分类号 | G02F1/1335 G03F7/027 G02B5/22 G02B5/20 G03F7/004 | | |
| 代理人(译) | HA , 桑KU HA , 杨郁 | | |
| 优先权 | 2003128902 2003-05-07 JP | | |
| 其他公开文献 | KR100857811B1 | | |
| 外部链接 | Espacenet | | |

摘要(译)

[问题]提供一种用于LCD的可固化的绿色组合物，其可以获得良好的颜色再现性，特别是具有高色密度和绿色的色纯度。一种用于LCD的可固化绿色组合物，包含碱溶性树脂，着色剂，光敏聚合物组分和光聚合引发剂，其中可固化生坯组合物包含铝酞菁颜料和黄色颜料作为着色剂的绿色着色剂，y值为0.60或更高。

