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(12)

(KR)
(A)

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(11)
(43)

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$$(71) \quad \begin{array}{ccccccc} & & 가 & & 가 & & \\ & & & & & & \\ & & & & 가 & & 가가 & 1 & 1 & 1 \end{array}$$

(72)

가	가	가	가	가	가	가	가
가	가	가	가	가	가	가	가
가	가	가	가	가	가	가	가

(74)

$$\vdots$$

(54)

가 가 ,
DC(E)가 ,
가 가 ,
DC(E)가 ,
가 가 .

6

‘ ‘ ‘ ‘ ‘ ‘ ‘ ‘
 ‘ ‘ ‘ ‘ ‘ ‘ ‘ ‘

1

2 DC(E)

-

3

4

5

6

7

8

9

10

11

[]

11,11',21,21',31: , 12,22,32: , 13: , 14,14'24,34: , 15: , 15':
 , 25,35: , 26,36: , 37: , 101,201,301,401,501,601: , 105,20
 5,305,405,505,605: , 111,211,311,411,511,611: , 114,220,320,420,514,613:
 (), 215: , 317: , 414: , 415: , 615:
 , 106,206,306,433,506,623: , 113,213,313,413,513: , 614: .

가

((R), (G), (B) 3)
(TFT),

가 . ,

가 ,

가 ,

가 ,

가 , ,

가

가

가

가 .

가

가 , 가 0 ,
가 . 가 ,
가 , 가 ,

(發塵)

가 , ,

가 .

가 .

가

DC(E)

1

80% , DC(E) 0.5V .

2

80% , DC(E) 0.5V

3 2 , 가

80% , DC(E) 0.5V

1

2

80% , DC(E) 0.5V

3

1 2

80% , DC(E) 0.5V

4

DC(E) 0.5V 80%

5

80% , DC(E) 0.5V

6

E) 0.5V 80% , DC(

[1]

1 (12) , 1 (12) . 1 , (11) (13) (14) (14) (15) , .

(11) (13) (13) 가 가 . , , DC(E) .

가 , (13) 가 80% , 90% , DC(E) 가 95% , 가 (13) DC(E)가 0. 5V , 0.2V , 0.1V . , 가 가 .

, , DC(E) . ()

4cm² 0.2ml , 105 5 . , DC(E) DC(E)가 0.05V . 95% ()

/ / / / / / , .

· :5 15μm

· 가 :5V

· 가 :60Hz

· 가 :16.67msec

(DC(E))

DC(E) 2 (Co) - (hysteresis loop) , (Cs) (Co+Cs)/2 (2) . , / / / / / / .

· :5 15 μ m

· : (2 Vs') 10V

· - : - 10V +10V

· , (11) , (13) 0.01 1 μ m ,
 , (13) 가 가 .

· (11) (12) , (Pyrex) , 가
 , 가 가
 7059 , 가
 , ,

· , (11) (13) (14) (15) (14)
 (15) , , ,

· , (11) (14) , ,
 (15) (12) (12) (15) .

· , (11) (13) (15) (15R), (15G) (15
 B) , , (15) , (15R)
 가 , (15G), (15B) (15)

· (14) (15) (13) ()
 80% , DC(E)가 0.5V)

· 3 1 3 , (11')
 (12) , (12) (14') (14')
 (15') .

· (11') (12) (11) (12) .

· (11') (14') (15') , ,
 1000 2000 , ,
 , , ,
 , , .

(11') (15') (15')
 (11) (13) (15) 가 , 가 가 ,
 80% , 90% , 95% DC(E)가 0.5
 V , 0.2V , 0.1V
 가 가

(15') (15'R), (15'G) (15'B)
 (15') (15'R) 가 , (15'G), (15'B)
 (15') (15'B)

[2]
 4 2 4 (21)
 (22) , (22) (24) (25) , (24)
 (25) (26)

(21) (26) (26) 가 가 , (26)
 80% , 90% , 95%
 DC(E)가 0.5V , 0.2V , 0.1V
 (11) (13) 가 ,
 가 가

(21) (22) (11) (12)
 (21) (24) , 1000 2000
 (21) (24)
 (25) (25R), (25G) (25B)
 (25) (25R) 가 , (25G),
 25B) (25)

(26) (21) , (25) (24)
 (25) 80% , DC(E)가 0.5V (26) (21)
 (26) 0.1 0.3 μ m .

[3]

5 3 5 (31)
 (32) , (32) (34) (35) (34)
 (35) (36) (35)
 (37)가 (36)

(31) (36) (36) (37)가 가 가
 0% , 90% (36) (37) 8
 0.2V , 0.1V DC(E)가 0.5V ,
 (13) 가 (11)
 가 가 .

(31) (32) (11) (12) .
 (31) (34) (35) (21) (2
 4), (25) , (31) (34)
 , (31) (36) (21) (26)

(31) (37) (31)
 (37) (37) , (36) 2 10 μ m
 (37) , (37)
 (35B) 1 1 (35) (35R), (35G)
 (37)
 (截頭錐體)

(37) (80%
 , DC(E)가 0.5V) 가

[1]

6 (21) 1 (111) (105) 6 (101) (21) (111)

(21) (101) (21) (21) (26) (21) 80%
 , DC(E)가 0.5V) 가 (21) (26)
 (106), (107)

(101) (111) (112)
 (113) (TFT)(114) (113) (115)
 (111) (TFT)(114) (群)(),
 (), (21) (106) ()
) (TFT)(114)

(111) (112) (12)

(101) (106), (113) (ITO),
 (ZnO), (SnO) , , CVD
 0.01 1 μ m
 (105)

(101) (107, 115)
 0.01 1 μ m (107, 115)
 (107, 115) 가 ()가 (105)
 (107, 115)
 (105)

(101) (105) 95% , DC(E)
 DC(E)가 0.05V

(101) (105)
 (105) 가 가 (21) (26)
 (26) 80% ,
 90% , 95% , DC(E)가 0.5V ,
 0.2V , 0.1V (101)

(101) (21) ,
(11, 11', 31) .

[2]

7 2 7 (201)
(21') (211) , ()
(205) , (21') (21
1)

(201) (21') (24)
(21) , (2) 1')
(26) (80% , DC
(E)가 0.5V) 가 (21') (26) ()
206), (207) .

(201) (211) (212)
(220) , (213) , (220) (215) ,
(213), (220) (215) (216) .

(220) (221), (222), (223),
(224) (225) (TFT) , (225) (223)
, (213) .

(215) (223) (224) (225) ,
(220) . (215) (201) ,
(216) (205) , (215)
80% , 90% , 95% ,
DC(E)가 0.5V , 0.2V , 0.1V .

(215) Cu - Fe - Mn

(211) (212) (12)

(201) (206), (213) (ITO),
(ZnO), (SnO) , , CVD
0.01 μm , .

(201) (207, 216) , ,
0.01 μm . (207, 216)

, ()가 , (207, 216) 가 , (205)
(207, 216)

(201) (205) 95% , DC(E)
DC(E)가 0.05V

(201) , (205)
(205) 가 가 (21') (26)
(211) (215) , (26) (215) 95%
80% , 90% ,
DC(E) 0.5V , 0.2V , 0.1V
(201)

(201) , (11, 11', 21, 31) , (1
(21')
1, 11', 31)

[3]

8 3 8 , (301)
(21) (311) , ()
(305) , (21) (311)

(301) (21) (21)
(21) (26) ()
80% , DC(E)가 0.5V) 가 (21)
(26) (306), (307)

(301) (311) (312)
(320) , (313) , (320) (317) ,
(313) (320) (316)

(320) (220) , (321), (322),
(323), (324) (325) (TFT)
(325) (323) , (313)

(317) (323), (324) (325) , ()
21) (317) 2 10 μ m
(317)
(317) (317) , (317)
(21) (25) (25R),

(25G) (317) (25B) 1 1 .

% , (317) 80% , 90
 95% , DC(E)가 0.5V , 0.2V ,
 0.1V .

(317) (31) (37)

(311) (312) (12)

, (301) (306), (313) (ITO),
 (ZnO), (SnO) , , CVD
 0.01 1 μ m , .

(301) (307, 316) (201) (207,
 216) .

(301) (305) ,
 DC(E)가 0.05V 95% , DC(E)

(301) (305)
 (305) 가 가 (21) (26) ,
 (311) (317) , (26) (317)가
 95% , DC(E) 0.5V , 80% , 90% , 0.1V
 (301)

(301) (21)
 (11, 11') , (11, 11', 21)

[4]

9 4 9 , (401)
 (411) (431) , ()
 (405) , (411)
 (431) , .

(401) (411) (412)
 (420) , (413) , (420) (414) , (41
 3) (415) , (413), (414), (415)
 (420) (416) .

(420) (220) , (421), (422),
 (423), (424) (425) (TFT) .
 , (425) (423) , (413) .
 , (414) (201) (215) , (423)
 (424) (425) , (420)
 . (414) (80% , DC(E)가
 0.5V) 가 , (215) .

(411) (415) (413) , (415R),
 (415G) () . (41
 5) . , (415) , 가 , ,
 .

(401) , (415) 80% , D
 C(E)가 0.5 . (415) (11) (15)

(411) (412) (12)

, (401) (431) (432) (433),
 (434) . (432) (12)

, (401) (413), (433) (ITO),
 (ZnO), (SnO) , , CVD
 . 0.01 1 μ m ,

, (401) (416, 434) (201) (207,
 216) .

(401) (405) , DC(E)
 95% ,
 DC(E)가 0.05V .

(401) , (405)
 (405) 가 가
 (415) . , (414) (415) (411) (414)
 , 80% , 90% , 95% ,
 DC(E) 0.5V , 0.2V , 0.1V ,
 (401) .

[5]

10 5 10 , (501)

() (11') (511) (505) , ,

(511) , .

(17) (501) (11') (12) (14') (15')

(11') ,

(11') (15') (

80% , DC(E)가 0.5V) 가 .

(11') (17) ,

, (11') (15') (506), (507)

,

(513) (501) (511) (512)

(TFT)(514) , (513) (515)

(511) (TFT)(514) (

() , (11') (506) (

) . (TFT)(514)

(511) (512) (12)

, (501) (506), (513) (ITO),

(ZnO), (SnO) , , CVD

0.01 $1\mu\text{m}$,

(501) (507, 515) , ,

0.01 $1\mu\text{m}$, (507, 515)

(507, 515) , ()가 , (505)

(107, 115)

(501) (505) , , DC(E)

95% ,

DC(E)가 0.05V .

(505) 가 가 (501) , (505)

(11') (15') .

, 90% , (15') 95% , DC(E)가 0.5V , 80% , 0.
 2V , 0.1V (501) (11')
 , (501) (11, 21, 31)
 [6]
 11 6 11 , (601)
 , (611) (621)
 () (605)
 (621)
 (601) (611) (612)
 (TFT)(613) (614)
 (614) (615) (614) (615)
 (606)
 (611) (614)
 (615G) (611) (615B) (615) (614) (615R),
 (615) (615)
 , 가 ,
 (601) (615) (615) (11) 80% , DC
 (E)가 0.5 (15)
 (611) (612) (12)
 , (601) (621) (622) (623),
 (624) (622) (12)
 , (623) (ITO), (ZnO), (SnO) ,
 , CVD 0.01
 1 μ m
 (601) (606, 624) (201) (207,
 216)

(601) (605) 95% , DC(E)
 DC(E)가 0.05V .

(601) (605) (611)
 (605) 가 가 (615) 8
 (615) 0% , 90% , 95% , DC(E)가 0.5V ,
 0.2V , 0.1V (601)

[]

A.

(7059)

(1)

(R1, G1, G2, B1) (, ,
) 가 , 3 ,
 (, , 가 ,) ,
 ,
 0.05% KOH 1.5 μ m , 90 , 3 (R1, G1, G2, B1)
 , 200 , 30 (pre - bake), (500mJ/cm²),
 (post - bake)

()

...14.0

((大日精化工業) () TM #9550)

(() Disperbyk111) ...1.2

((昭和 高分子)() VR60) ...1.2

(() SR399) ...3.5

가 (가가 (綜研化學)() L - 20) ...0.7

· ...1.6

(2 - - 2 - - 1 - (4 - - - 1)

· ...0.3

(4,4' -)

· (2,4 -) ...1.6

· () ...75.8

(R1)

· ...4.8

(가 A2B)

· ...1.2

(BASF D1819)

· (() 24000) ...3.0

· (() SR399) ...4.0

· - 1 ...5.0

· (가 가 907) ...1.4

· ...0.6

(2,2' - (o -) - 4,5,4',5' - - 1,2' -)

· ...80.0

()

(G1)

· ...4.2

(() 9Y - C)

· ...1.8

(BASF D1819)

· (() 24000) ...3.0

· (() SR399) ...4.0

· -1 ...5.0

· (가 가 907) ...1.4

· ...0.6

(2,2' - (o -) - 4,5,4',5' - - 1,2' -)

· ...80.0

()

(G2)

· ...4.2

(() 6Y - CL)

· ...1.8

(BASF D1819)

· (() 24000) ...3.0

· (() SR399) ...4.0

· -1 ...5.0

· (가 가 907) ...1.4

· ...0.6

(2,2' - (o -) - 4,5,4',5' - - 1,2' -)

· ...80.0

()

(B1)

· ...6.0

(BASF L - 6700F)

· ...0.6

(() 12000)

· (() 24000) ...2.4

· (() SR399) ...4.0

· -1 ...5.0

· (가 가 907) ...1.4

· ...0.6

(2,2' - (o -) - 4,5,4',5' - - 1,2' -)

· ...80.0

()

, -1 : : :2 - ="15.6:37.0:30.
5:16.9() " 100 % , 2 - 16.9 % 가 ,
42500 . -1 .

(2)

,

()

· (() SR399) ...7.1

· -1 ...8.8

· ...9.7

((油化) () 180S70)

· (가 가 907) ...1.4

· ...1.0

(2,2' - (o -) - 4,5,4',5' - - 1,2' -)

· () ...38.0

· (-3 -) ...34.0

(3)

2

S1, S2 , , , 0.01% KOH
, 100 , 3
, 200 , 30 .

(S1)

· (() SR399) ...8.7

· - 1 ...10.9

· ...12.1

(() 180S70)

· ...1.0

((日本油化)() HS - 210)

· (가 가 369) ...1.2

· ...1.0

(2,2' - (o -) - 4,5,4',5' - - 1,2' -)

· ...29.1

()

· (- 3 -) ...36.0

(S2)

· (() SR399) ...8.7

· - 1 ...10.9

· ...12.1

(() 180S70)

· ...2.0

((日本油化)() HS - 210)

· (가 가 369) ...1.2

· ...1.0

(2,2' - (o -) - 4,5,4',5' - - 1,2' -)

· ...28.1

()

· (- 3 -) ...36.0

B. · DC(E)

A. , ((Merck) MLC - 6846 - 000)

1 , DC(E)

98% , DC(E) , DC(E)가 0.01V .

()

4cm^2 0.2ml , 105 5

()

/ / / / / / ,

· :5 $15\mu\text{m}$

· 가 :5V

· 가 :60Hz

· 가 :16.67msec

(DC(E))

/ / / / / / , (C

s) (Co) DC(E)(- , (2 (C
(Co+Cs)/2 (2
)

· :5 $15\mu\text{m}$

· : (2 Vs') 10V

· - : - 10V +10V

[1]

	(%)	DC(V)
	80	0.4
R1	93	0.04
G1	95	0.01
G2	65	0.81
B1	94	0.05
	95	0.01
S1	95	0.01
S2	75	0.6

(1) 1
, 100mm × 100mm, 0.7mm (7059)
, (1.5 μ m)

가 3 R1, G1, B1
R1
(90 , 3)
(0.05% KOH) (200 , 30)
(1.5 μ m)

가 , G1 (1.
5 μ m)
(1.5 μ m)
, 1 (1)

(2) 2
3 R1, G2, B1 1
(2)

(3) 3
(2)
가 1.5 μ m 4 (3)

(4) 4
(3) S1
(100 , 3)
(0.01% KOH) (200 , 30) 5 μ m
5 (4)

(5) 5

S2

4

(5) .

(1 5) (ITO)

, 100mm × 100mm, 0.7mm (7059)
(TFT) , TFT
(ITO)

, (0.07 μ m) , .

, (1 5) . ,
MLC - 6846 - 000 .

가

5 (1 5) , 23 , 60% RH 72
가 2 .

(가)

C

× : , .

[2]

1		R1	G1	B1		-	
2		R1	G2	B1		-	x
3		R1	G2	B1		-	
4		R1	G2	B1		S1	
5		R1	G2	B1		S2	x

2 , 1, 3, 4 , 가
가 가 가

80% , DC(E) 0.5V ,

, 2 80% DC(E)가 0.5V
0.5V 가 , 5 80% DC(E)가

가 가
 DC(E)가
 가 가
 DC(E)가
 가 가

(57)

1.

80% , DC(E) 0.5V

2.

80% , DC(E) 0.5V

3.

2 ,

80% , DC(E) 0.5V

4.

1 3

5.

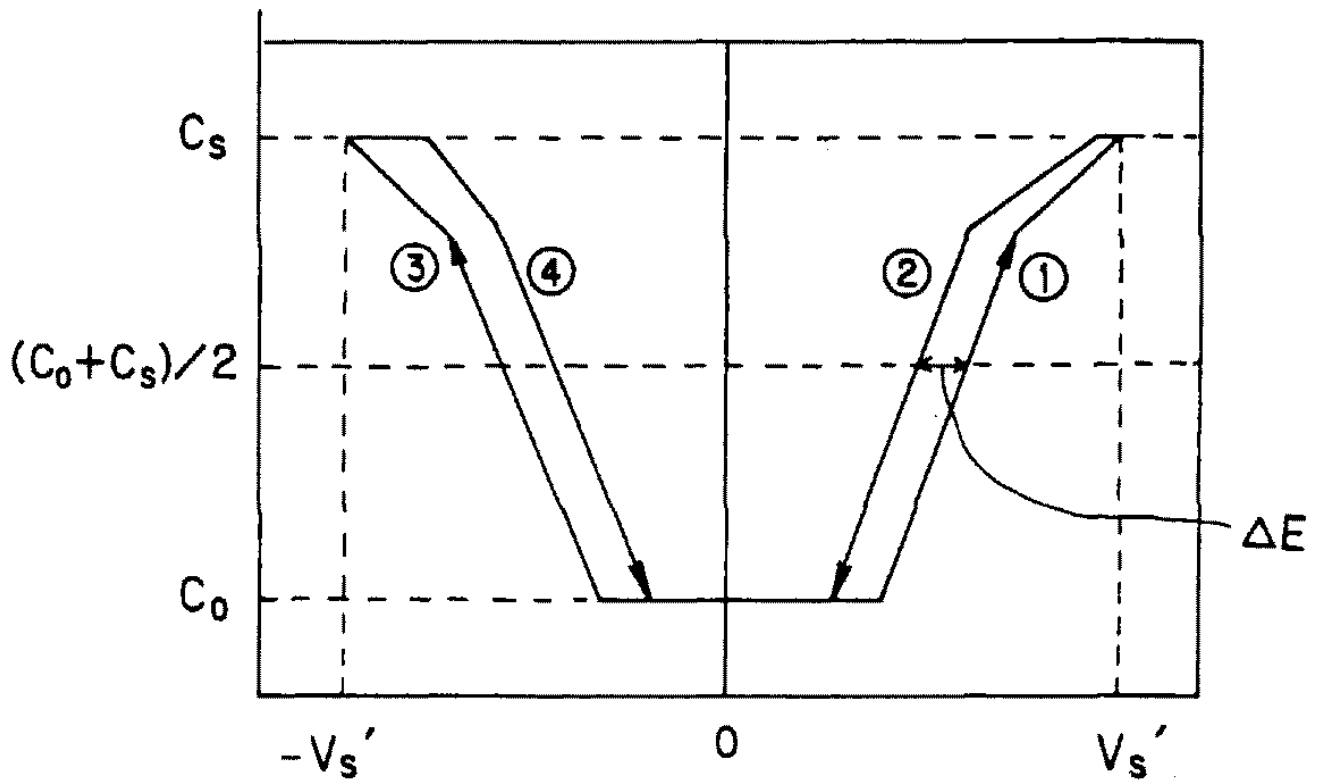
80% , DC(E) 0.5V

6.

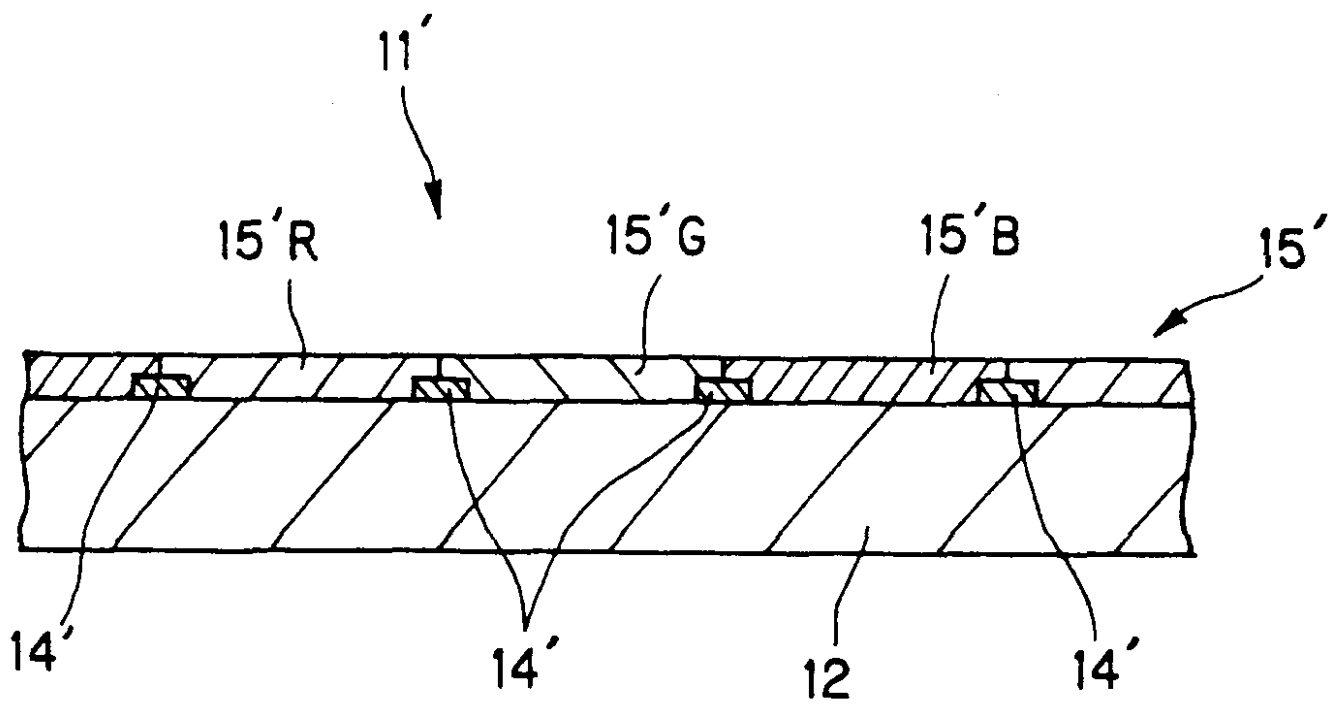
0% , DC(E) 0.5V

8

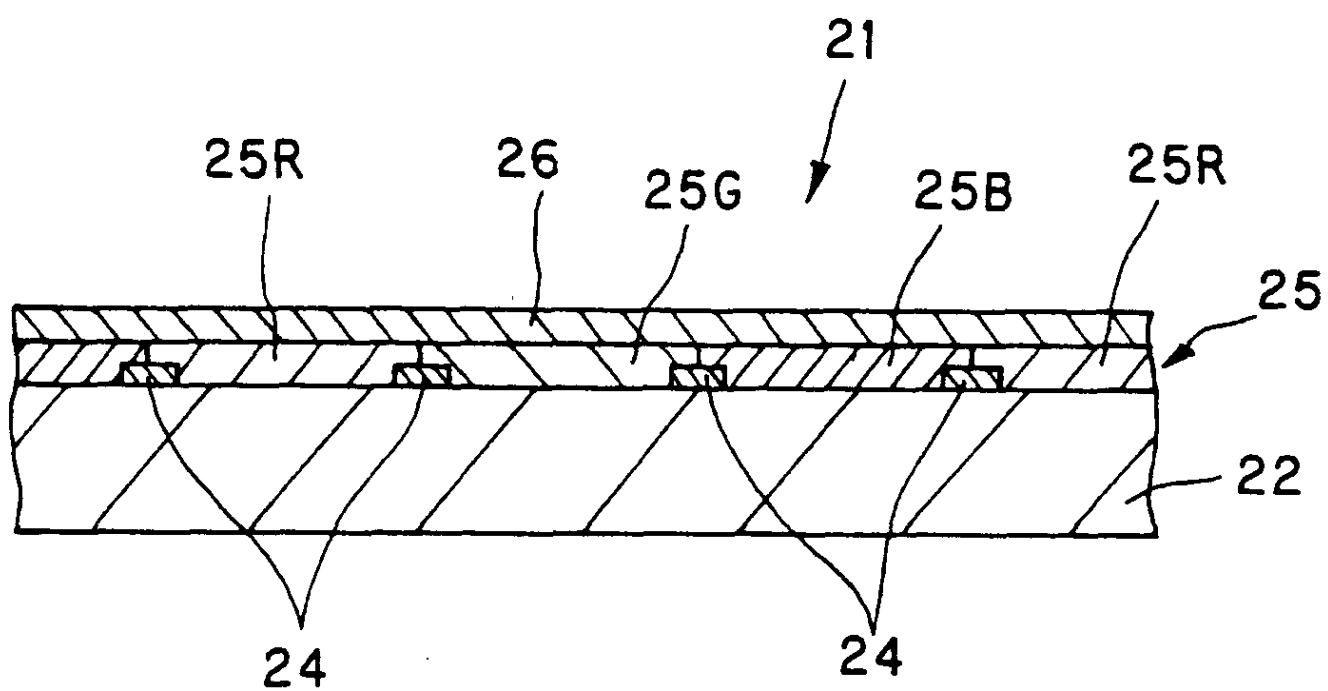
2



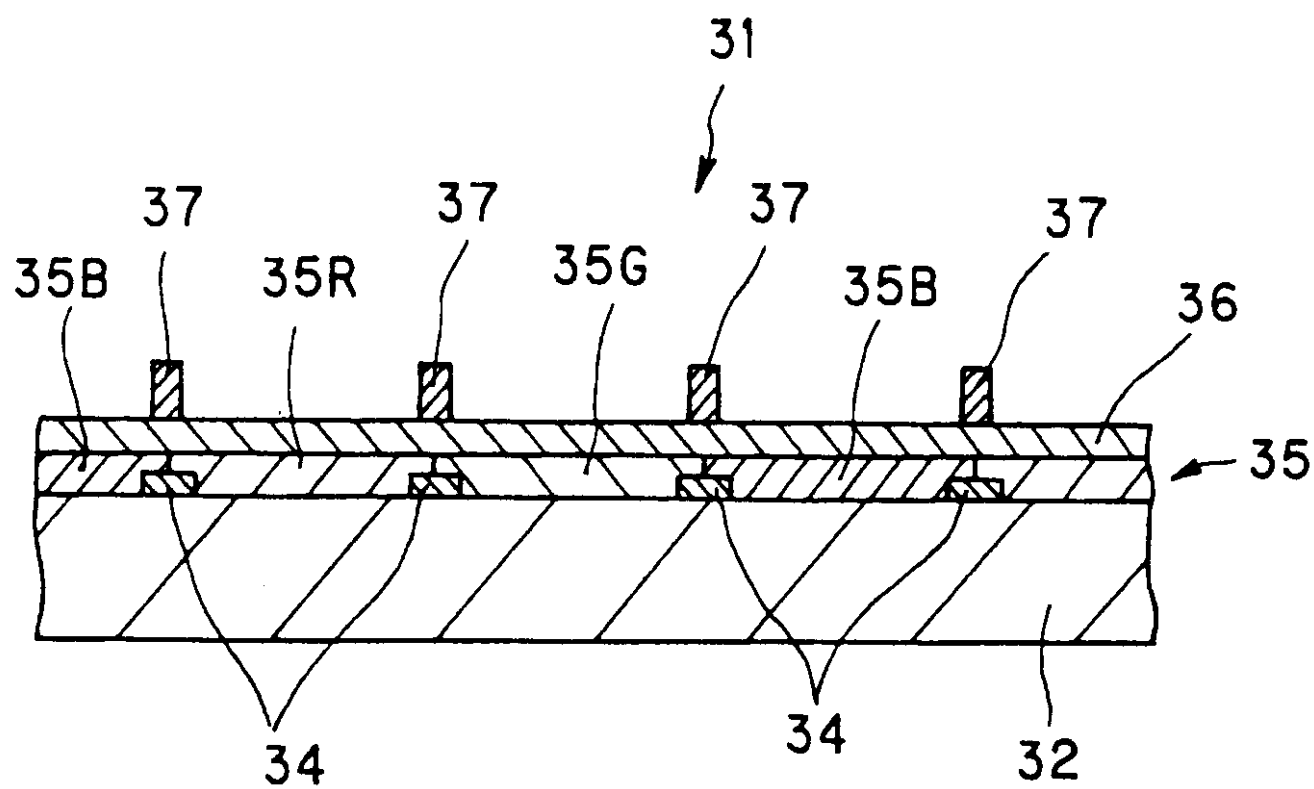
3



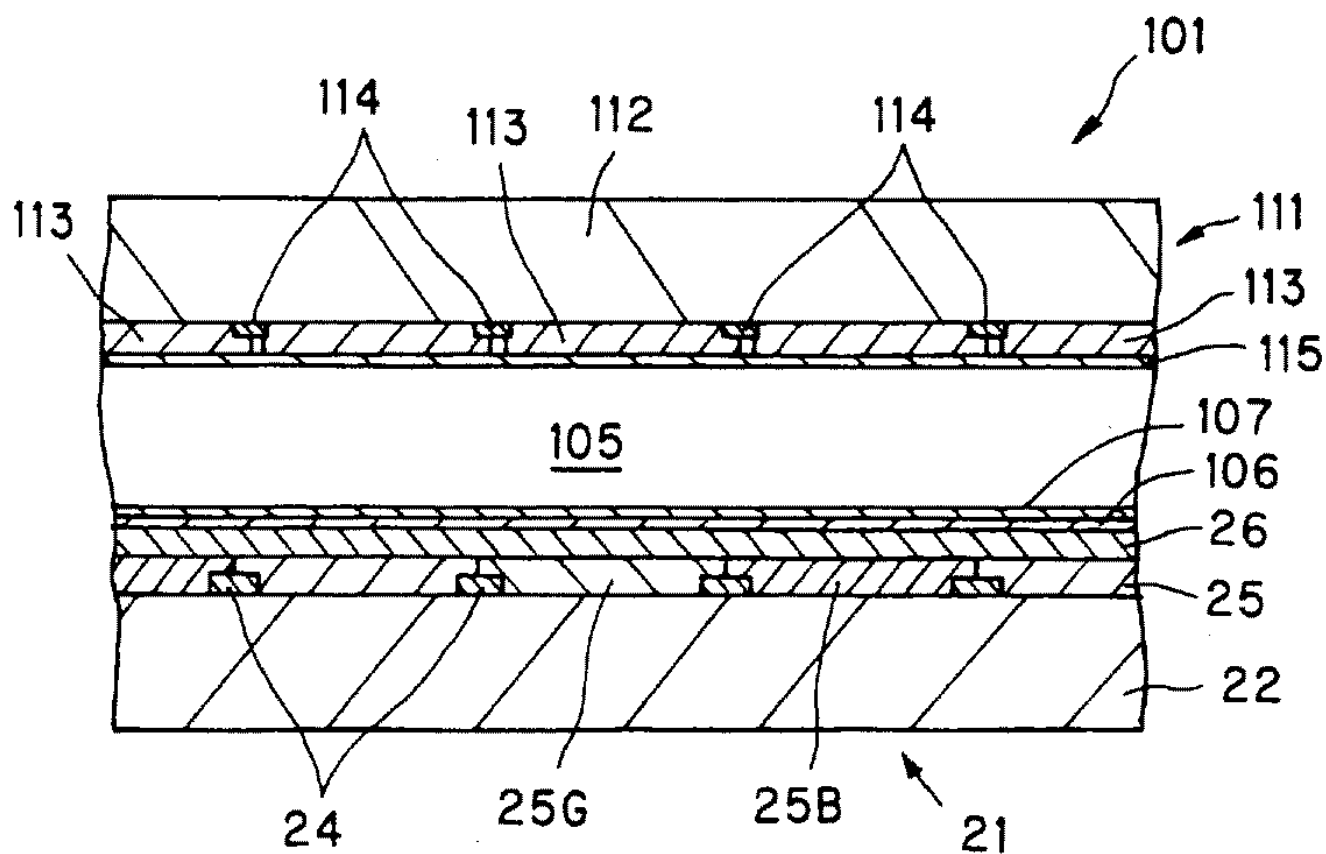
4



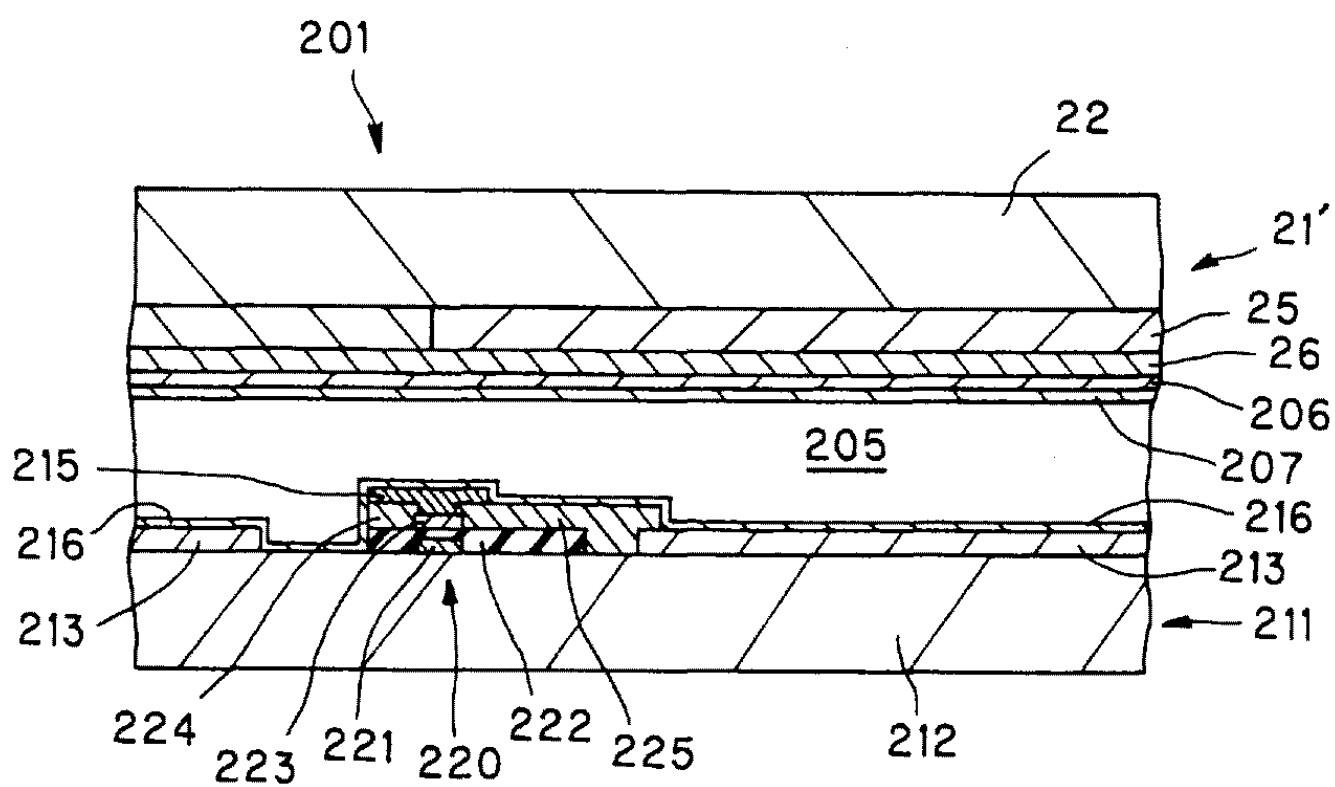
5



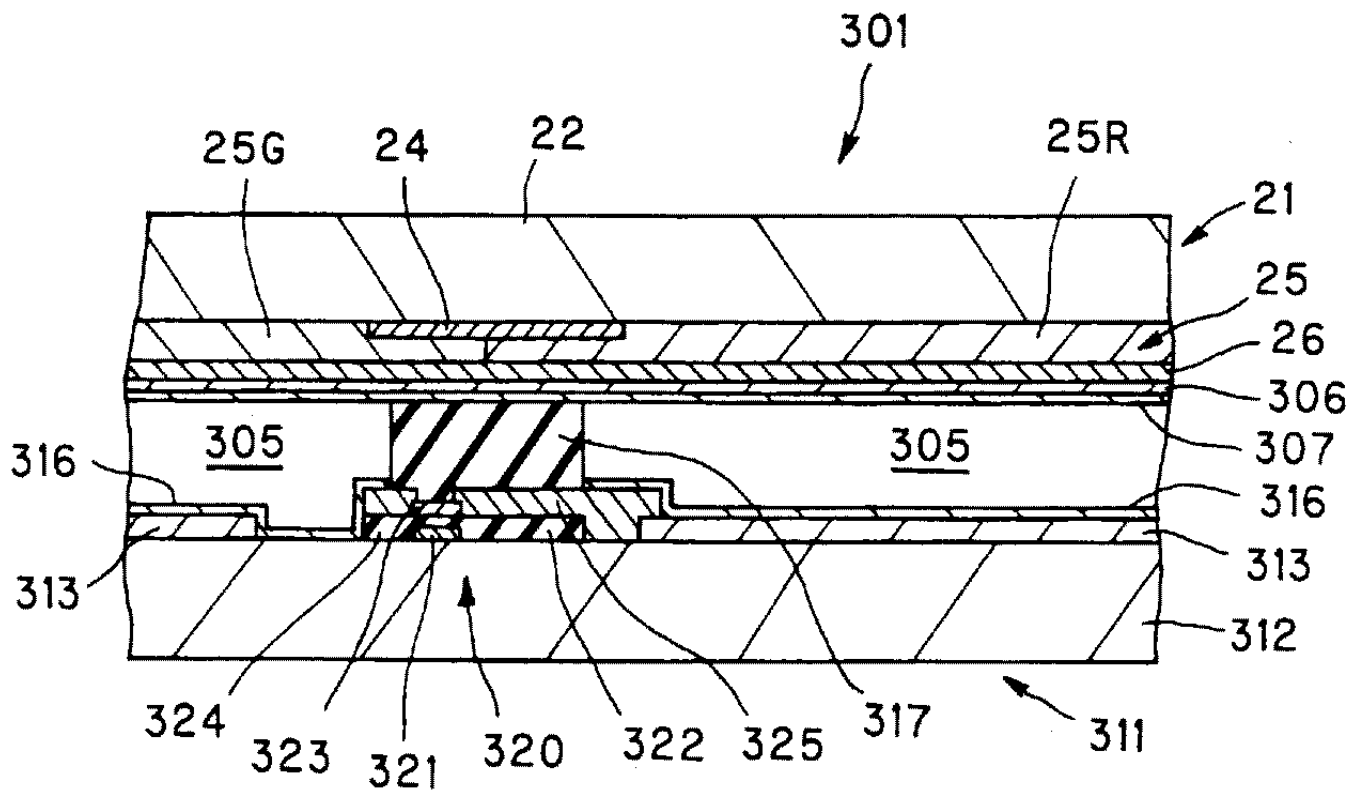
6



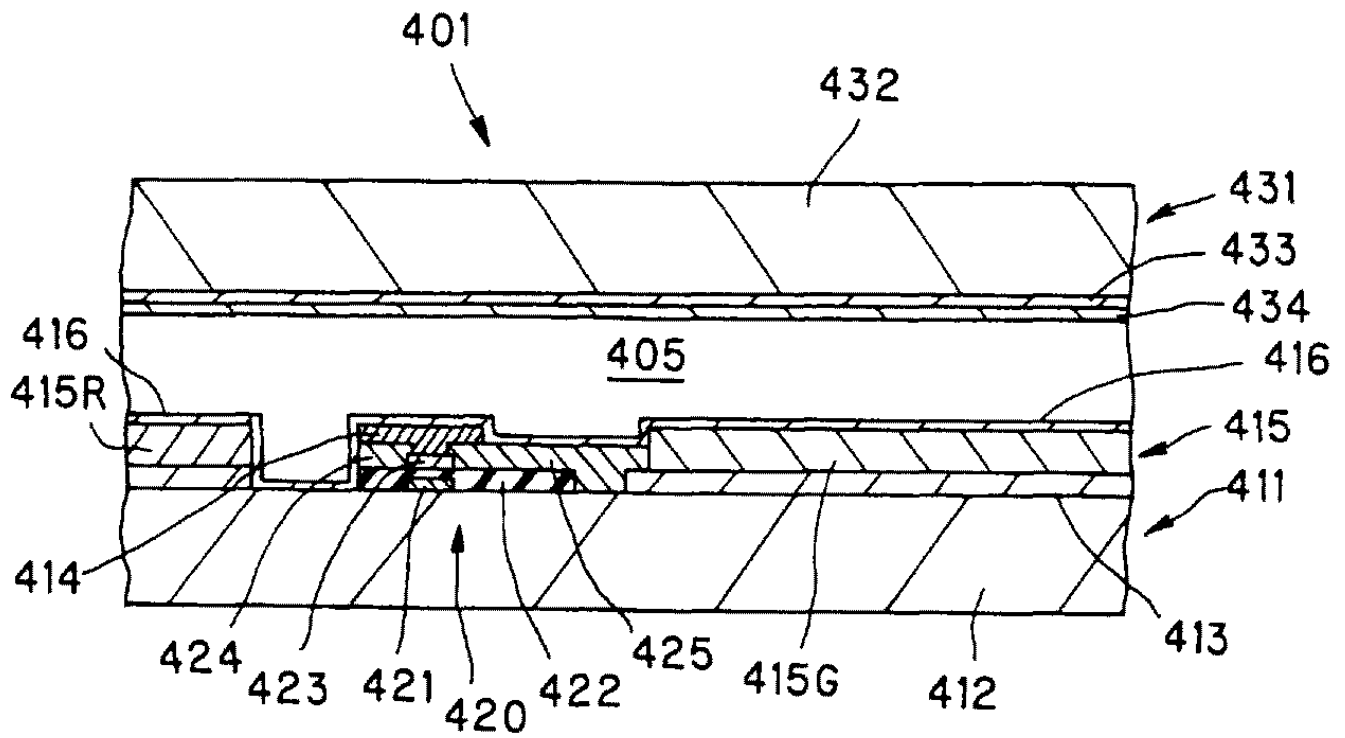
7



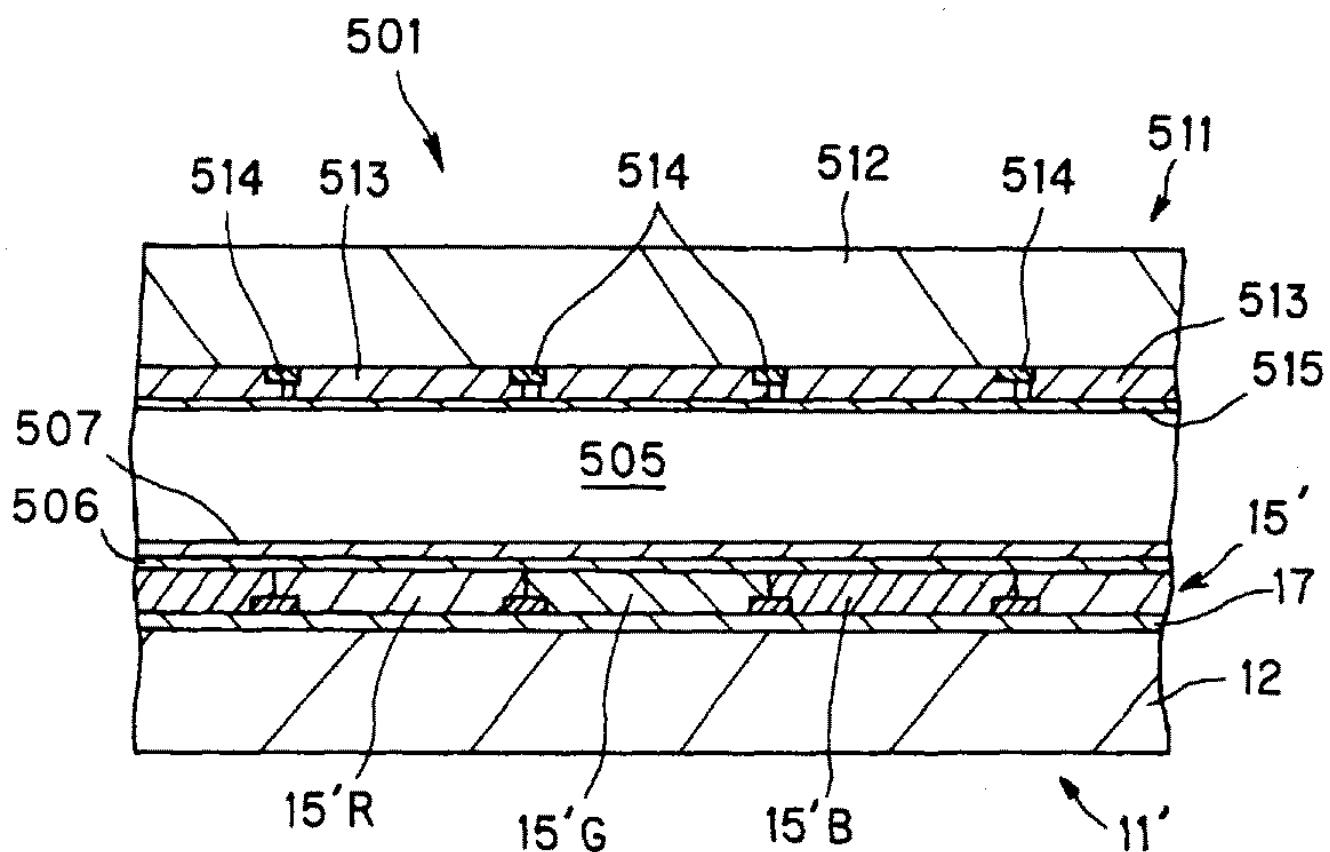
8



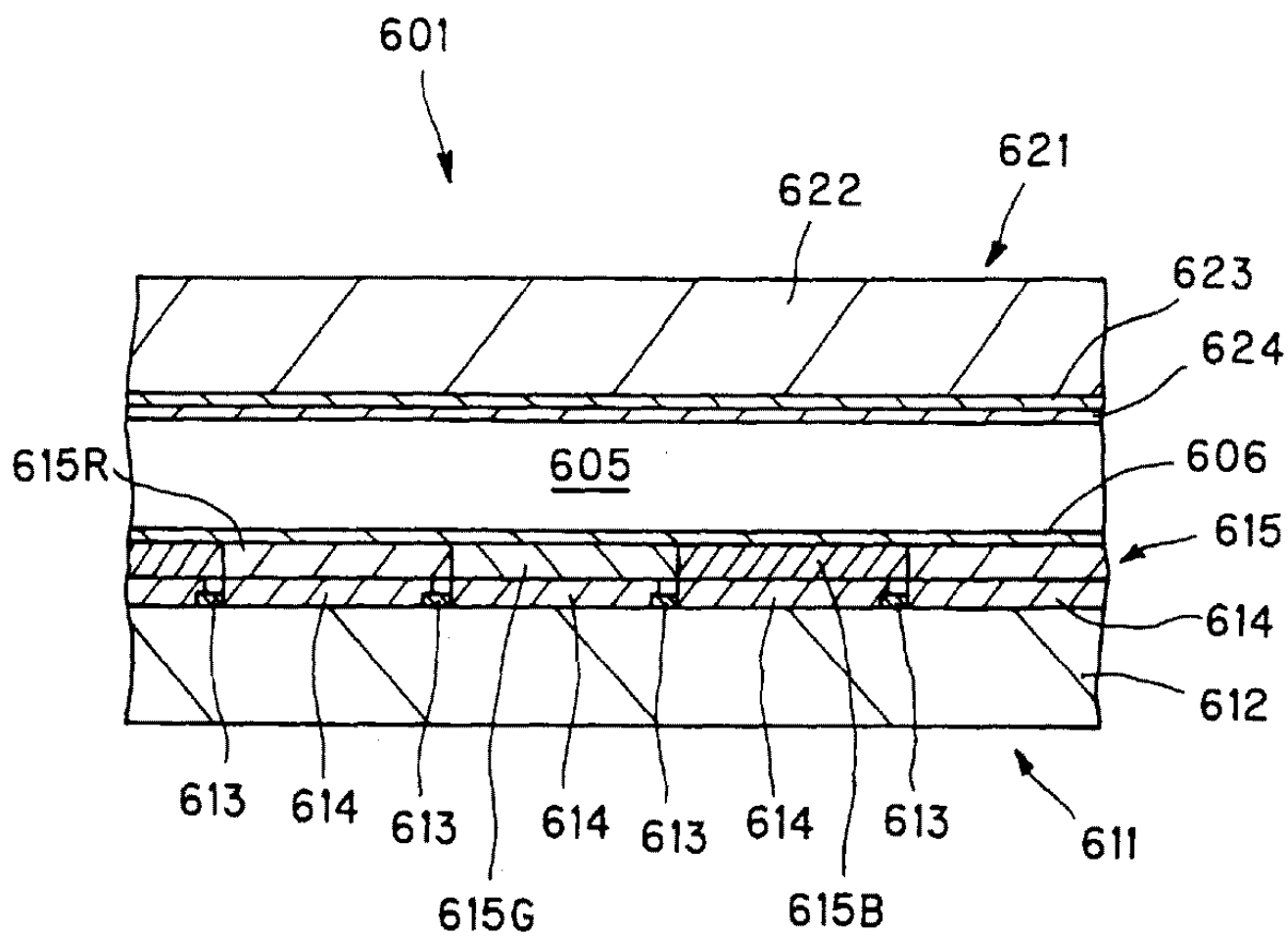
9



10



11



专利名称(译)	彩色滤光片和液晶显示器		
公开(公告)号	KR1020010076397A	公开(公告)日	2001-08-11
申请号	KR1020010003246	申请日	2001-01-19
[标]申请(专利权)人(译)	大日本印刷有限公司		
申请(专利权)人(译)	大日本人才平底鞋株式会社		
当前申请(专利权)人(译)	大日本人才平底鞋株式会社		
[标]发明人	KISHIMOTO TAKEHIDE 기시모토다케히데 YAMAGATA HIDEAKI 야마가타히데아키 NISHIMOTO TAKASHI 니시모토다카시		
发明人	기시모토다케히데 야마가타히데아키 니시모토다카시		
IPC分类号	G02F1/13 G02B5/20 G02F1/1335		
CPC分类号	G02F1/133516 G02B5/201		
代理人(译)	您是我的专利和法律公司 KIM , JAE MAN		
优先权	2000015292 2000-01-25 JP		
其他公开文献	KR100658107B1		
外部链接	Espacenet		

摘要(译)

本发明涉及关于滤色器和液晶显示器的具有优异显示质量的液晶显示器和使用该液晶显示器的滤色器。根据本发明，在包括滤色器的树脂构件中，当它在液晶显示器中使用时，它与液晶层接触或者具有通过薄膜作为树脂构件最多地吸引到液晶层的树脂构件。其中，通过该树脂构件进行杂质提取处理的液晶的电压保持率和残留DC (ΔE) 由预定范围构成。具有优异显示质量的液晶显示器防止产生包括迹线上升或污迹等的白色指示错误在严格的条件下，包括长时间标记或高温高湿度等，它与液晶层接触或者它具有最多通过薄膜吸引到液晶层的树脂构件作为其中保持电压的树脂构件通过该树脂构件进行杂质提取处理的液晶的速率和残留DC (ΔE) 由预定范围构成，并且液晶显示器成为可能。滤色器，液晶显示器，树脂着色层，透明保护层，树脂光学屏蔽层，液晶层，相应的电极板，透明像素电极，树脂模塑凸起部分，黑色矩阵，半导体驱动器零件。

