

(19)
(12)

(KR)
(A)

(51) 。 Int. Cl. ⁷
G02F 1/136

(11)
(43)

2002 - 0047017
2002 06 21

(21) 10 - 2001 - 0079476
(22) 2001 12 14

(30) JP - P - 2000 - 0038 2000 12 15 (JP)
2472

(71) 가 가
가
5 7 1

(72) 5 7 1 가 가
5 7 1 가 가

(74)
:

(54)

(Organic interlayer separation technique), TFT
(Unevenness reflection plate formation)

(Color filter on TFT

technique),

1

2 1

3a 3b 1 , 3a , 3b

4a - 4e 1

5 1

6 5 TFT

7a - 7d 6 , 7a A - A , 7b B -
 B , 7c C - C , 7d D - D

8a 8b 5 (Lead - out) , 8a
 , 8b

9a - 9e 5

10 2 TFT

11a 11b 10 , 11a A - A ,
 11b B - B

12a - 12e 10

13 3 TFT

14a 14b 13 , 14a A - A , 1
 4b B - B

15a - 15e 13

16 4 TFT

17a 17b 16 , 17a A - A , 1
 7b B - B

10: 10a:

11: TFT 12:

13: 14:

15: 15a:

15b: 16: a - Si TFT

17: 18:

19: 20:

21, 37: 22:

23, 35: 24:

25, 31: 26:

27: 28:

29: 30:

32: 33:

34: 36:

39: 40, 42:

41: 43:

i TFT) 가 (a - S

1 FT 3b , 3a 3b 1 TFT , 1 3a . 2 1 T

1 (3) hole) (5) , a - Si TFT (1) (2) (3) , XY (3a) (4) (6) , (2), (2) (2a) (Contact through -

2 (2) (7a) (2) (7b) (8) (8)
 (3) (4) (Ohmic contact layer) (9)
 (8)

(8) (9) (3) (4) (3) (4), (6)
 (9) (8) (4) (8) (Passivation film) (7c) (3), (4)
 akr (7c) (5) (4)

(3a) (2a) a - Si TFT a - Si TFT (1) (2) (6)
 (3)

3a (2b) (7a)
 (2) (6a) 가 (7b)
 (7c) 3b (4a)
 (7b) (6b) 가
 (7c)

4a - 4e TFT 1 TFT 4a (Al), (Mo), (Cr)
 100 400 nm (7a)

1 (4a), (3a) (2) ()

4b CVD 400nm, 300 nm, 50 nm (8) n⁺ (9)
 (9) (7b), (8) (9)
 2

Cr 4c (7b) (9) Mo,
 (4) (3a) 100 200 nm (3),
 3

3 a - Si TFT (1) (3) (4)
 (9) (4c)

4d a - Si TFT (1) (Back Channel), (3), (3a),
 (4) () CVD 100 200 nm
 (7c)

() (4) (6) (5) (7c) (7b)

(7c) 4

5 4e (6)

TFT 가 (4a 4e).

TFT 가 .

TFT , TFT

(Disclination) (Organic interlayer separati
on technique) JP - A - 6 - 242433

(Aperture ratio) (TFT
) (Color filter on TFT technique) JP - A - 8 - 122824

가 (Unevenness reflection plate
formation technique) JP - A - 5 - 232465

TFT
TFT JP - A - 6 - 242433
a - Si TFT

TFT (7c) (6) (7c)

(5) (4)

(4d) TFT 4

4 가

(5) 5

4e (6)

6

TFT 1

가 가 1

TFT 1

TFT

가

(1)

5 1

a - Si TFT가 XY

5 , a - Si TFT, (10) , TFT (11) TFT (12) (11)

(13) (14) TFT (11) (13 14) (15)

, TFT (11) (12) (10) 가 (10a)

6 5 TFT (18) 6 a - Si TFT (16) 가 6 a - Si TFT (16) (1) (21), (19) (20) () , 6

가

1/2 (17)

(22) , (21) L , (21) (23)
 (24) , (17) , (20)

(18)

(17) , 가 a - Si TFT (16) (18)
 a - Si TFT (16) (20) (24)

7 6 , 7a A - A , 7b B - B
 , 7c C - C , 7d D - D

7a , a - Si TFT (16) (26) (25) ,
 (26) (27) , (27) (19)

(19) a - Si TFT (16) (20)
 (21) (19) () , (20) (21)
 (19) (20) (19) (21) (1

9)

(20), (21) (19) (28) , (29)
 (28) (21) (24)

(24) TFT (11) (32) (33) (12)
 (30) TFT (11) (12)

7b , a - Si TFT (16) (19), (21) (28)
 (Storage capacity) (34) (34) (25)
 (27)

(23, 35) (28) (29) (23, 35)
 (24) (21)

(12) (32) (12) (36) (36)
 (33) (31)

(20) (21) , (19) (28) (20)
 (21) , (28), (19) (27)

(17) a - Si TFT (16) (26) ,
 (18) a - Si TFT (16) (20) (24)

7c , (18) , (25) (27), (19),
 (18) (28) , (29) 7d
 (17) (25) , (29)

8a, 8b, 5, 8a, 8a, 8a
 (15a), 8b, (27), 8a, (15a), 8a
 (28), (15b), (19), (28), (25)
 (27), (19), (15b)

8b, (13), (25)
 (14), (27), (19), (14), (14)
 (28), (25)

9a - 9e, 5, 9a
 (Cr), 100, 400 nm, 가, (Al), (Mo),
 (25), (26), (13)
 1

9b, (27),
 (19), n⁺, () CVD, 400 nm,
 300 nm, 50 nm, 가, Mo, Cr, 1

(8b), 2, (20), (18), (21)
 2, (20), (21)

a-Si TFT (16), (20), () (18), (21)
 (14), CVD, 100, 200 nm, 가,
 (28)

(14), (21), (24), (23),
 (28), (13), (27)
 (28)

9c, (19),
 3, (28), (19)

(28), (19), (Buffered hydrofluoric acid, BHF)
 (19), (28), (27)
 (28), (19), (27)

9d (Overcoat layer) (29)

(35) 4

9e (29) (24)

5

1 (15a) (13) 2

(15a) (27), (19),

(15b) (14) 3 (19),

(15b) (14) (28)

1 (28) (19) 1

가

T (16) (29) (18) a - Si TF (29)

(17) (19) 가 (Side leak) 가

(28), (19) (27)

(29)

1

(19) (BCB) Si (Polysilazane), (S

iloxane),

(2)

10 2 TFT 10

10 a - Si TFT (16)

(37) (37) (23, 35)

(41) TFT (19) (37) 6

11a 11b 10 , 11a A - A , 1
 1b B - B (26) , 11a (26) , (25) , a - Si TFT (16)
 (27) (19) (27) ,
 (37) (19) a - Si TFT (16) (20) (37) (20)
 (19) (19) (11a) . (20) (37) ()
 9) (20) (37) (19) (28) , ()
 28) , (39) (39) , (28)
 (Base post) (40) (11b) .
 , (41) (39) , (41) (39)
 (35) (28) (23) (37) (11b) .
 , (18) (17) a - Si TFT (16) (20) (26) , (41)
 a - Si TFT (16) (20) , (41)
 12a - 12e 10 , ,
 (28) (8a - 8e) , 1
 3 (28) , (28) (40) .
 (39) , , ,
 , (39) (35) , ,
 2 (39) 4 (12d) .
 , (39) (39) (35)
 , (39) (35) , (39) 4
 , (Al) (Ag) , (39) (41)
 5 (12e) .
 (3)
 13 3 TFT . 13
 13 , a - Si TFT (16) 1/2 (17) (22)
 L (21) , (39)
 (42) . 10 TFT

14a 14b 13 , 14a A - A , 1
 4b B - B . 14a , (34)
 (23, 35) .
 (28) (28) (4) , (27), (19)
 (28) (42) (25) (14
 b) .
 (42) (42) , a - Si TFT (16) ,
 (42) (39) , (39) (41) , (39)
 (35) (28) (23) , (41)
 (21) (14b) . 11 .
 15a - 15e 13 .
 , 3 a - Si TFT (16) , (27), (19) (28)
 (42) (39) (42) (15c) , 4
 , 12
 3 , 2 , 가
 (4)
 16 4 TFT TFT 16
 . TFT (Color filter on TFT, COT)
 16 , (21) 1/2 (17) (6
 22) , a - Si TFT (16) L (21) ,
 TFT
 17a 17b 16 , 17a A - A , 1
 7b B - B . 17a , TFT (11) (12)
 , (11, 12) (30) .
 TFT (11) () (25) , a - Si TFT (16), (24),
 (32), (36), () (43) () (12)
 () (31) (33) .
 , (12) TFT (11) (32) (36) .
 7 1 .
 (28) (32) (36) 가 , (32) (36)
 (43) . (43) (24)
 , (24) (43) (35) (28)
 (23) , (21) .

(10a) (24) (33) (10) 가 , 가 (24, 33) (30) 가 , ,

(32) (36) , TFT 1 ,

(20) (20) (21) (28) (19) (18), (19)

, a - Si TFT , (19) (26) (19) 가 (19) (21) (20) (26) (24) 가 (18) (19)

(21) (26) (19) (20) (19) (18) (28)

(17) 가 (18)

(17) (27), (19) (28) (a - Si TFT) TFT a - Si TFT (1) 가 (17) (19)

6) 가 .

1 가

, TFT (COT) 가

가

(57)

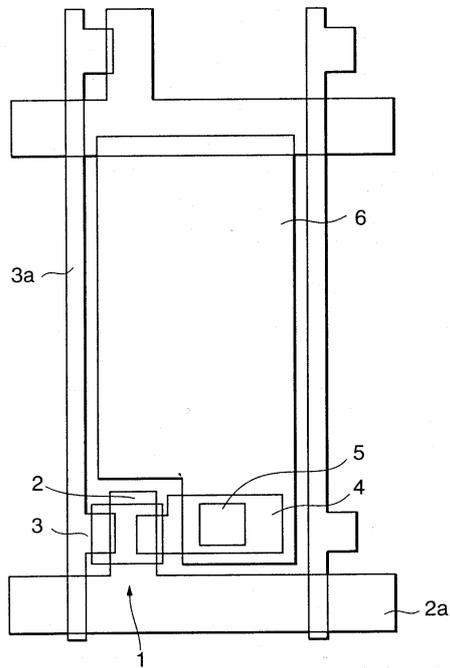
1.

가

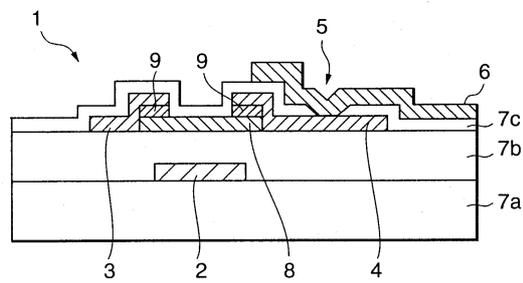
2.

1

1
종래 기술

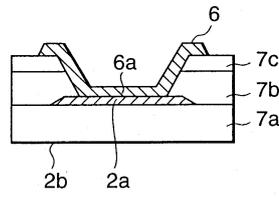


2
종래 기술



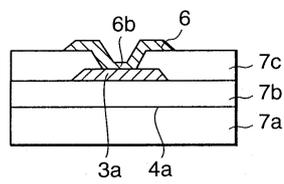
3a

종래 기술



3b

종래 기술



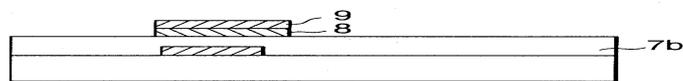
4a

종래 기술



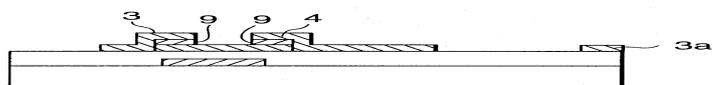
4b

종래 기술



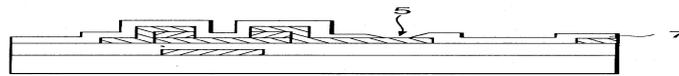
4c

종래 기술



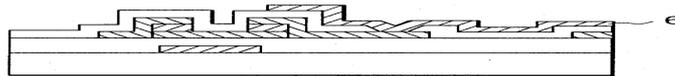
4d

종래 기술

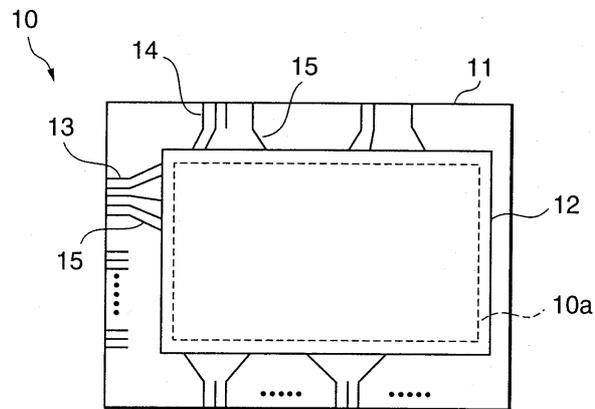


4e

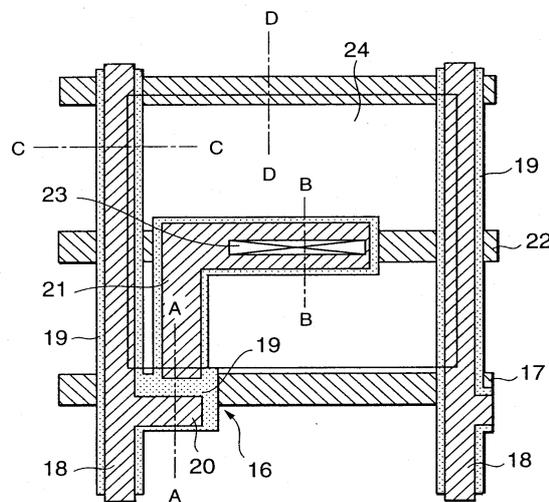
종래 기술



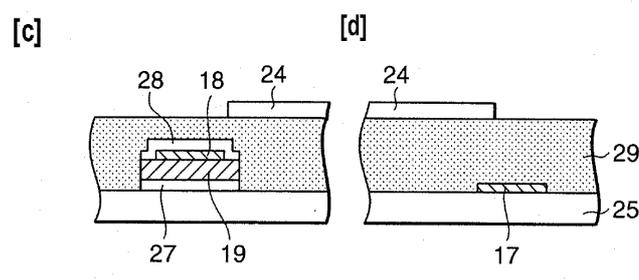
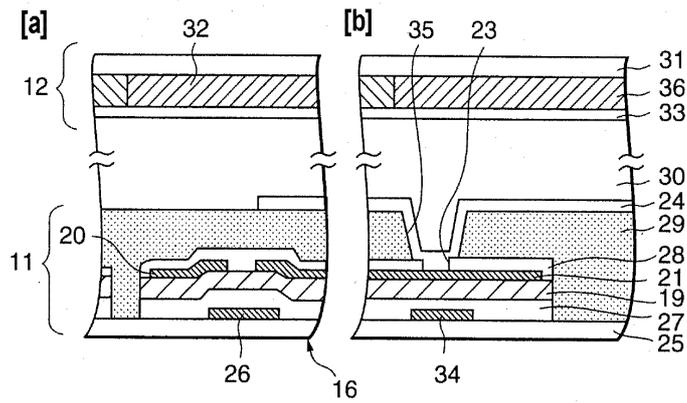
5



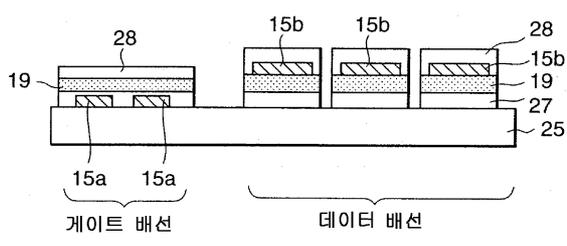
6



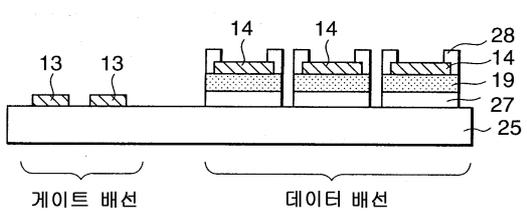
7



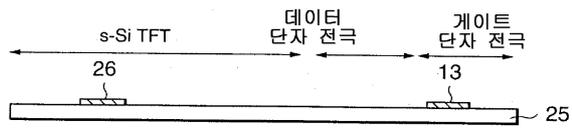
8a



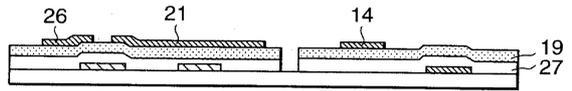
8b



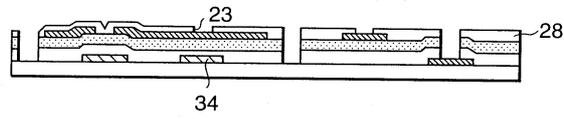
9a



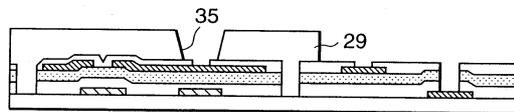
9b



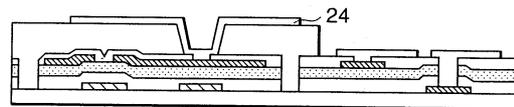
9c



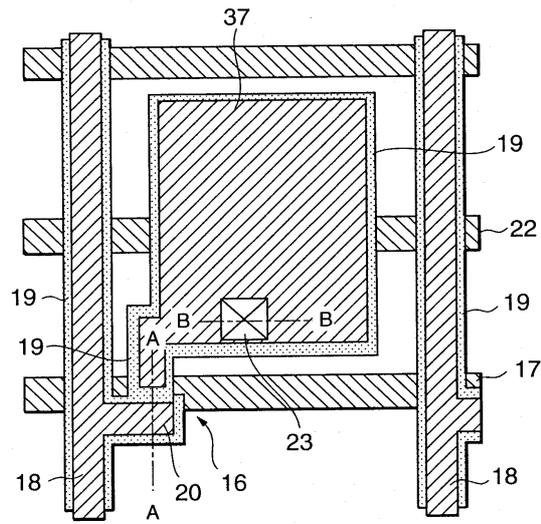
9d



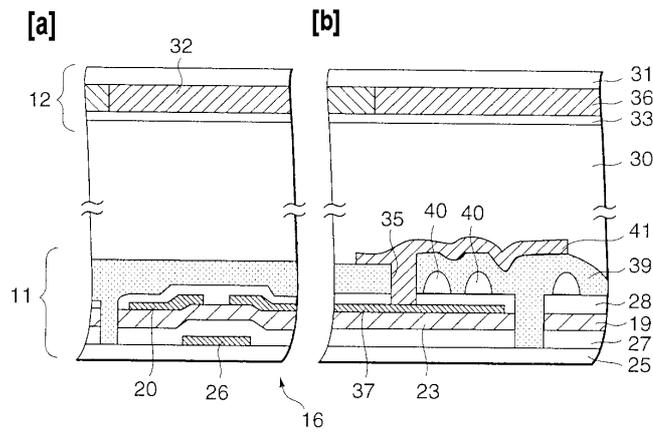
9e



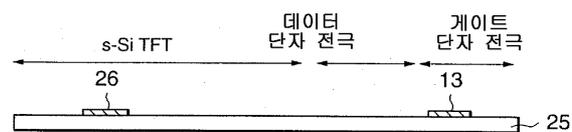
10



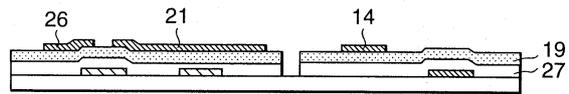
11



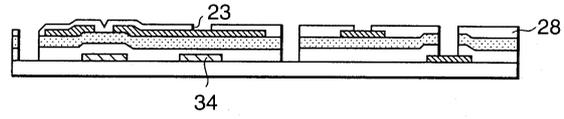
12a



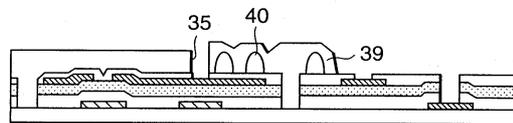
12b



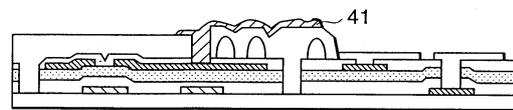
12c



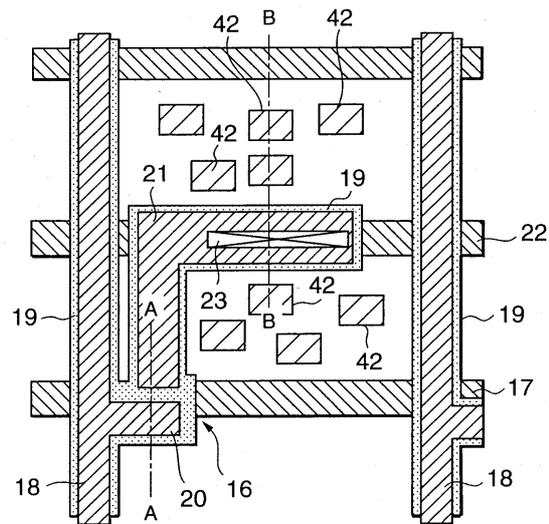
12d



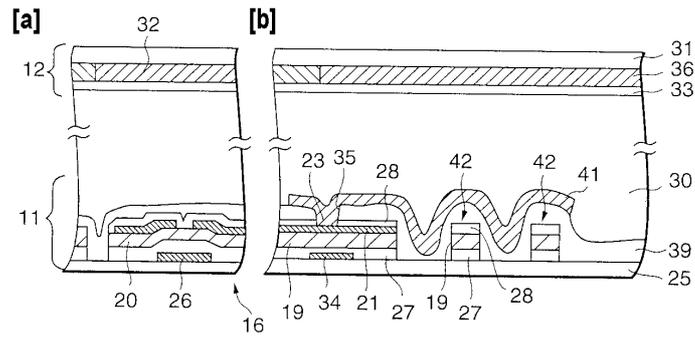
12e



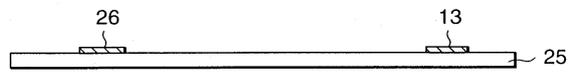
13



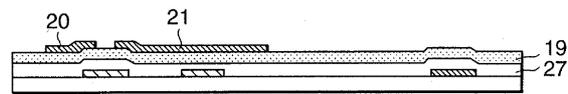
14



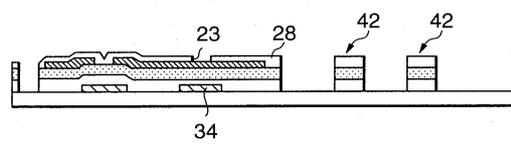
15a



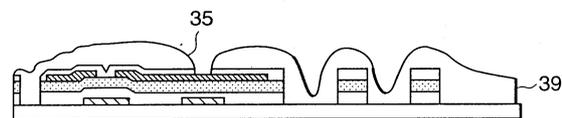
15b



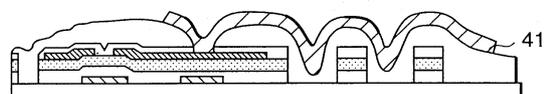
15c



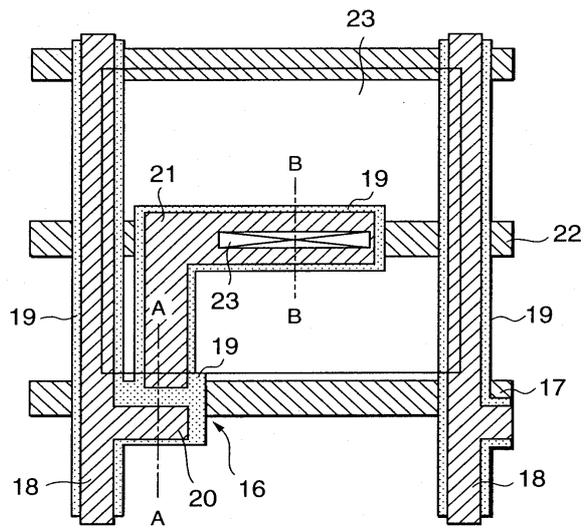
15d



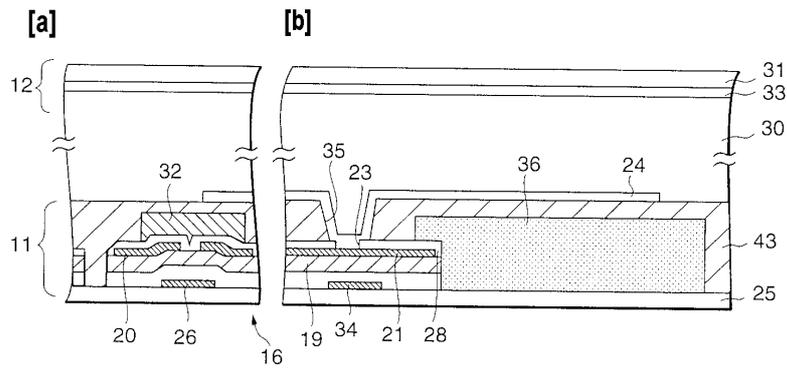
15e



16



17



专利名称(译)	液晶显示装置		
公开(公告)号	KR1020020047017A	公开(公告)日	2002-06-21
申请号	KR1020010079476	申请日	2001-12-14
[标]申请(专利权)人(译)	NEC液晶技术株式会社		
申请(专利权)人(译)	日元号技术可否让这个夏		
当前申请(专利权)人(译)	日元号技术可否让这个夏		
[标]发明人	SAKAMOTO MICHIAKI 사카모토미찌아끼 YAMAGUCHI YUICHI 야마구찌유이찌		
发明人	사카모토미찌아끼 야마구찌유이찌		
IPC分类号	G02F1/1368 G02F1/136 G02F1/1362 G09F9/30 H01L21/336 G02F1/1335 H01L29/786		
CPC分类号	G02F2202/10 G02F2001/136236 G02F1/136286 G02F2001/13629 G02F1/136227 E04H17/16 E04H17/20 F16B2001/0028		
代理人(译)	韩国专利公司		
优先权	2000382472 2000-12-15 JP		
其他公开文献	KR100662311B1		
外部链接	Espacenet		

摘要(译)

目的：提供一种用于液晶显示器的晶体管基板及其制造方法，通过该液晶显示器制造具有提供给晶体管基板的有机膜以提高性能的液晶显示器以较少的制造工艺生产，并且通过该液晶显示器制造液晶显示器。生产力可以提高。

