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(A)(51) 。 Int. Cl. ⁷
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2002 09 05

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2000 04 10

(30) JP - P - 1999 - 00106382 1999 04 14 (JP)
 JP - P - 1999 - 00106383 1999 04 14 (JP)

(71) 가 가
 가 4 6

(72) 가
 1 5 1 가 가
 1 5 1 가 가
 1 5 1 가 가
 1 5 1 가 가

(74)

:

(54)

2 , (2) 1 , (1) 1 ,

, (1) 1
 , (2) 2 .

1

1(A) , 1(B) 1(A) b - b

2 가 (main chain)

3 가 2 ,

4(A) , 4(B) 4(A) b - b

5 ,

6(A) ,

6(B) 6(A) b - b ,

7 ,

8(A) , 8(B) 8(A) b - b

9 ,

10 ,

11(A) , 11(B) 11(A) b - b

12(A) , 12(B) 12(A) b - b

13(A) , 13(B) 13(A) b - b

14(A) , 14(B) 14(A) b - b

15 ,

16 ,

17(A) , 17(B) 17(A) b - b

18(A) , 18(B) 18(A) b - b

19 ,

20 19 ,

21 ,

22 ,

23 ,

24 ,

25 ,

26 ,

27 ,

28(A) ,

28(B) ,

29 ,

30(A) 30(E) 29 ,

31(A) 31(E) 29 ,

32 ,

33 .

(散在)

(散在)

3.22), 8 - 114809 (1996.5.7), 2907137 (1999.4.2)가 . 8 - 76131 (1996.

가

가

가

가

가

가

가

가

가

가

가

가

가

가

" - " (multi - domain effect)가

[]

[1]

1(A) 1(B)

1(A)
1(B) 1(A) b - b

1(A) 1(B) 가

(, - (IPS))

가

2

1997 , 1 28

5,598,285

(1)

x

() (2)

(2)

가

(2)

가

(TFT)

x

(4)

(2)

(4)

(4A)

(4A)

(4)

(± y)

3

(4A)

(5)

가

(4)

(5)

(1)

(1)

가

, (4) 가 .

, (2) (4) (1) (2)
(4) (INS) .

(INS) (TFT) ,
() (3) (2) (4) ,
(Cadd) .

(INS) , (2) (TFT) ,
Si (6) .

, (6) (3A) (5A) , (2)
, (inverted staggered structure) (TFT)가 .

, (6) (3A) (5A) (3) (5)
.

, 1(A) y (3) , (3) (3A)
(6) .

, (3) 1(A) ,
가 .

, (5A) (3) , (5) .

(5) 2 (4A) y
(5) (4A) , (4A) ,
(5) (4A) .

, (5) (4) (INS) ,
(4) (Cadd)가 .

(Cadd) (5)
, 가 (TFT)가 , (3)
가 (TFT) (5) (TFT)가
, (5) (Cadd) .

, (1) (PAS)
, (TFT)가 .

가, (PAS) (7) .

가 TFT (1A) , (7)
(1B) .

(1B) () 1(A))(
BM), (BM) (FIL) (FIL)
(BM) (8) .

0)가 , (8) (Cadd)가 (1

(10) (8) , (TFT (1A) (1B)

(10) (Cadd) (4)

(4) (11) (10)

(10)가 (BM) ,

(11) (10)가 (1B) 1(B) , (10)

(11)

(11)

(4)

(10)가 (Cadd)가 ,

(Cadd)가 (4)

(4) 가

가, (10) (1B) , TFT (1A)

(4)

[2]

1 (7), (11)

(7), (11) (11) 가 , TFT (1A)

(7) (1B) (7), (11)

(10)가 (10) (11)

(1A) (7)

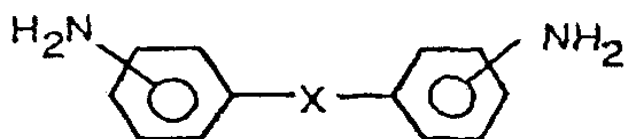
2 ,

3 가 ,

(7), (11) 가

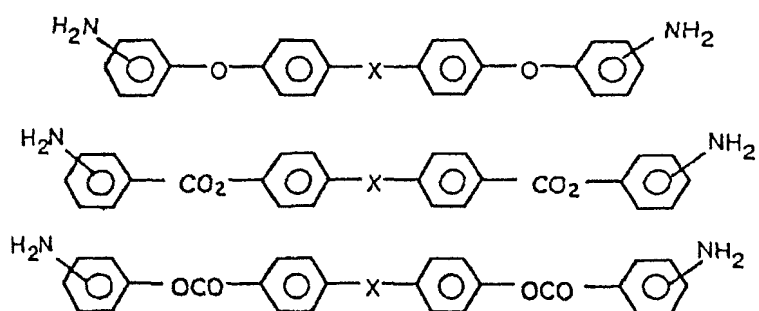
, 2,2 - [4 - (p - 50nm)]

1



(1 , X , -O -, -CH₂ -, -SO₂ -, -CO -, -CO₂ -, -CONH -)

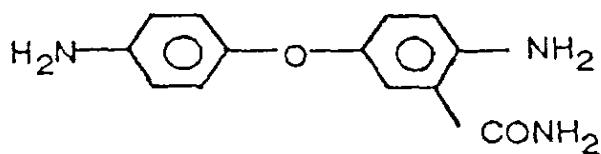
2



(1 , X) ()

p - , m - , 4,4' - , 4,4' - , 3,3' -
 , 4,4' - , 4,4' - , 2,2' - (4,4' -) , 4,4' -
 (p -) , 4,4' - (m -) , 4,4' - (p -)
 4,4' - (P -) , 4,4' - (P -) , 2,2' - [4,4' - (p -)]

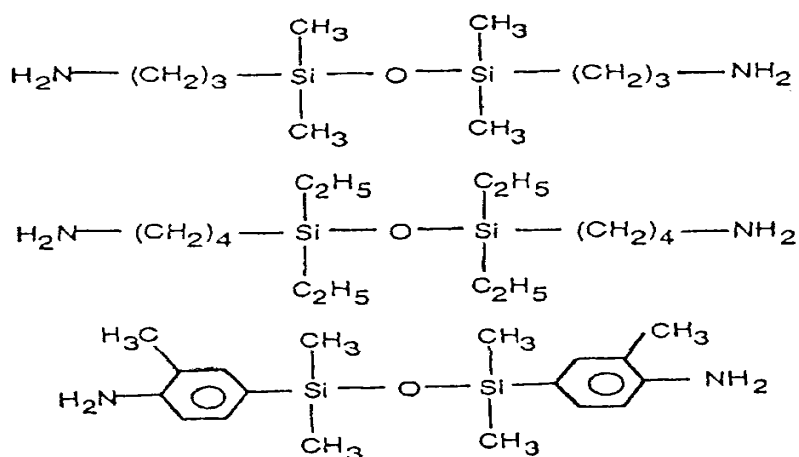
3



4,4' -

- 3 -

4



가 , 4,4' - - 3

- , 3,3' - , 3,3' - - 4,4' - , 1,6- , 2,2' -

[4 - (4 -)] , 2,2' - [4 - (4 -)] , 2,2' - [4 - (4 -)] , 2,2' -

[4 - (4 -)] , 2,2' - [4 - (4 -)] , [4 - (4 -)]

)] , [4 - (4 -)] , [4 - (4 -)]

] , [4 - (4 -)] , (4 -) , (4 -

) , [2 - (4 -)] , [2 - (4 -) - 3, 5 -] ,

[2 - (4 -) - 3, 4, 5 -] , [2 - (4 -) - 3, 5, 6 -] ,

[2 - (4 -) - 3, 5 -] , [2 - (4 -) - 5 - n -] , [2 - (4 -

-) - 5 -] , [2 - (4 -) - 5 - - 3 -] , [2 -

(4 -)

- 5 - n -] , [2 - (4 -) - 5 -] , [2 - (4 -) - 3 - 5

- t -] , [2 - (4 -) - 5 -] , [2 - (4 -) - 3 - - 5 -

] , [2 - (4 -) - 5 - - 3 -] , [2 - (4 -) -

5 -] , [2 - (4 -) - 3 - - 5 -] , 1,1 - [2 - (4 -) - 5 -

$$\begin{array}{l}
] \quad , 1,1 - \quad [2 - (4 - \quad) - 5 - \quad] \quad , 1,1 - \quad [2 - (4 - \quad) - 5 - \\
] \quad , 1,1 - \quad [2 - (4 - \quad) - 3,5 - \quad] \quad , 2,2 - \quad [2 - (4 - \quad) \quad] \quad , \\
 2,2 - \quad [2 - (4 - \quad) - 3,5 - \quad] \quad , 1,1 - \quad [2 - (4 - \quad) - 5 - \quad] \quad , 2, \\
 2 - \quad [2 - (4 - \quad) - 3,5 - \quad] \quad , 1,1 - \quad [2 - (4 - \quad) - 5 - \quad] 3 - \quad , \\
 1,1 - \quad [2 - (4 - \quad) - 3,5 - \quad] \quad 1,1 - \quad [2 - (4 - \quad) - 5 - \quad] - \\
 3 - 3 - 5 - \quad , \quad , \quad .
 \end{array}$$

가

, 2,2 - [4 - (3,4 -)] , 2,2 - [4 - (3,4 -)] , 3,3',4,4' - , 3,3',4,4' - , 3,3',4,4' - , 3,3',4,4' - , 2,3,6,7 - , 2,2 - [4 - (3,4 -)] , 2,2 - [4 - (3,4 -)] , 1,2,3,4 - (2,2,2) - 7 - - 2,3,5,6 - , 1,2,3,4 -

[3]

4A 4B , 1A 1B
.
1A 1B (10)가 (1B) , (10)
(BM) (15) , (15) (10)
(10)
1A 1B (10) (11) (4)
,
(10)
.
, , (15) (BM)
.
, (15) (BM) 가 .

[4]

5, 1A.

1A (10)가 (2) (3),

(10) (2) (3) (3)

, .

, 6A (INS) (2) (3)
b - b 6B (PAS) ,
(PAS) 가 , (INS) (3)

. , (3) () .

, (2) (3) (10) ,

. , (2) (3)

[5]

7 , 5 .

5 (10)가 (TFT) , (TF
T)

, (10) (TFT) (3A) (5A)
(TFT)

, 8A (TFT) , b - b 8B , (3A)
(3A) (PAS) , (PAS) 가 ,
(3A)

, (3A)

(3A) (5A) (TFT) ,

, (TFT) (6) , (2) (

10) 4 (TFT)

[6]

9

, 5 .

5

(10)가

(4)

(3)

,

4 (3) .
 , y 가 ()
) .

[7]

10 , 5 .

5 (10)가 (Cadd) ((4))
 , (10) .

9 , .

, (10) , (10)

, y (10)가 , ()
) .

[8]

11A 11B .

11A (, , 11B 11A b - b (twisted nematic type)) .

11A 11B 가 , .

() 가 , 가 .

가 ² 1975 11 11 .

가 3,918,796 .

(2), (3), (TFT)

(TFT) (5) , ITO(Indium - Tin - Oxide) (BM))

, (5) (4A) (1B) ()
 가), ITO .

, (5), (4A)

, (5) (10)가 (1B)

(10) 11B (8) (8)

(8) (10) (4A) (11)

(10) (11) TFT (1A) (7)

가 (10)
11B 가

(10) (BM)

11A, 11B

12A, 12B

3

[9]

13A 13B

11A 11B

13A 13B (10)가
(5) (10) (5h)가

(5) (5h) (10) (11), (7) (5)
(4A)

(5) (10)

(10)가

12A 12B 14A 14B , 3
(5) 가

[10]

15

15 , (10)

가

, 15 16 , x y 2

y x y 2 , x

[11]

17A 17B , 11A 11B

11A 11B ,

, (10)가 (1B) , (10) ,
(15)

, (15) (BM) , (BM)

, 18A 18B (10) TFT (1A) (17)

TFT (1A) (17) , , (2)

, (17) , (10) , (15)

TFT (1A)

[12]

19 , (10)

19 , (10) , 가 (10A)

(10) , (10A) , (10) (10C) , (10C) ,
 (10) (10A) , (10A) (10C) ,
 .

, (10) 20 , (10A) (10D)가 가 .
 (10) , 가 가
 .

(10D)
 가 , .

가
 .

, (10) (10C) , 20
 , (10A)
 (10C) ,
 .

(10C) , (10A) (1
 0C) (10A) , (10A)
 .

, (10) , .

[13]

21 , (10)가
 .

(10)
 .

, 21 , (PAS) , (10)
 (15)가 .

, (15)가 (10) (10A) (10A)
 .

[14]

22 .

22 , (1A), (1B) () (20) (21)가 ,
 (20) (10) (10)

, (10C) 가 (21) .

,
 , (21)
 (10)
 (10) 가
 [15]
 23 , (10)
 23 , (10)
 , (10)
 (10) 가 , (10)
 가
 (10) 가 , (10)
 ,
 , 24 , (10)

[16]
 25
 25 , TFT (1A) (1B)
 (10)가
 , (10) (25B) 1 (10B) ,
 (25A) 2 (10A)
 , (1B) TFT (1A) (2)
 (21)
 , (10A) (21) 2 (10A) , 2
 (10A) (2)
 , (2) , 가 (2)
 ,
 , (2) , (3)
 (2) (3)

[17]

26

26 (10)가 (2) , TFT (1A) (1B)

(26A) (10) (seal) (26B) (20) 3 1 (10A) (10B) ,

3 (10A) 1 (10B)

, (1B) () (22)

, (22) 3 (10A) TFT (1A) 3 (10A)

(23) TFT (1A) (20) , (22)

, TFT (1A) (1B) (22) , 3 (10A)

(22) TFT (1A) 가

[18]

TFT ,

, 가

TFT , 가

, TFT 가 TFT

TFT , TFT 가 가 ,

[19]

27 (1B) (10)

(1B) (BM), (FIL)가 ,
(8)

, (8) (10)가 , (10)

(10) , 가 ,
.

, (1B) , TFT (1A) .

[20]

28A (BM) (10)

(10)
(10)가 .
(10) ,

() .

[21]

28B 20 (10) 가
, () 20 .

[22]

29 , 1B .

29 , (10)가 (10)
(30)가 .

(10) ,

, Si

, 30A 30E .

1.

(10) , (10) (30A).

2.

가 가 , (10) (30)
(30B).

3.

(10) (30)가 (30C).

4.

(30D).

5.

가 (30) . (10)
(30E).

, 31A 31E .

1.

(10) , (10) (31A).

2.

(30)가 가 (31) , (31)
(31B).

3.

(10) (30)가 (31C).

4.

(31D).

5.

가 (30) . (10)
(31E).

, .

[23]

32 .

32 (10)가 가 (40)

, (40) , TFT (1A) (PAS) ,

, .

, (10) 가 (40) 가 , TFT (1A)

, 33
() (42)

, 가 .

, (10) 가 가 ,
, 가 (10)가 가 .

, (, 가
) , .

, (10) 가

(57)

1.

,

,

가 ,

가 ,

가

2.

1 ,

3.

1 ,

4.

1 ,
가 , 가 ,
가 .

5.

1 ,
.

6.

,
,
가 ,
가 ,
가 .

7.

6 ,
,
.

8.

6 ,
, 가
.

9.

6 ,
가 , 가 ,
가 .

10.

6 ,
.

11.

7 ,

.

12.

,

,

가 ,

가 ,

,

가 ,

가 .

13.

12 ,

.

14.

12 ,

가 .

15.

12 ,

가 , 가

.

16.

12 ,

.

17.

1 16 ,

가

.

18.

1 16 ,

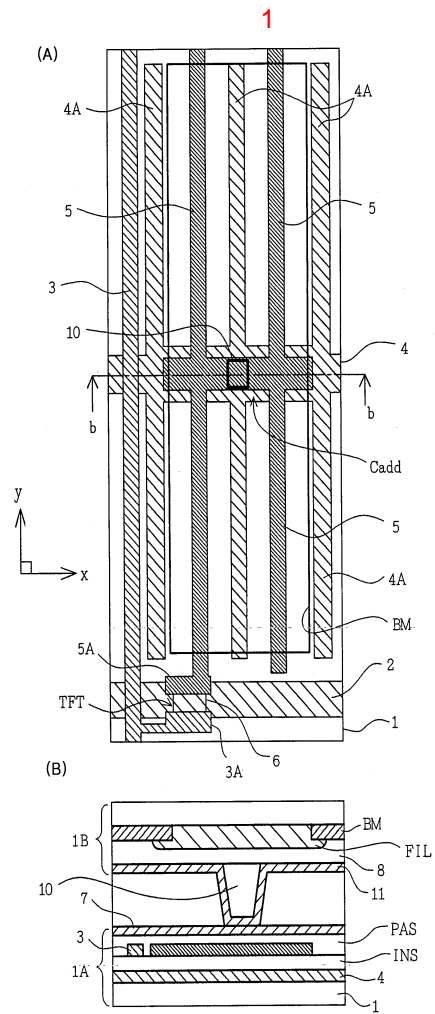
가

.

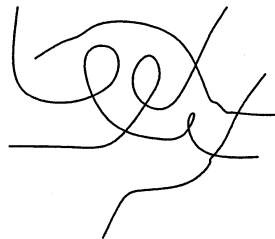
19.

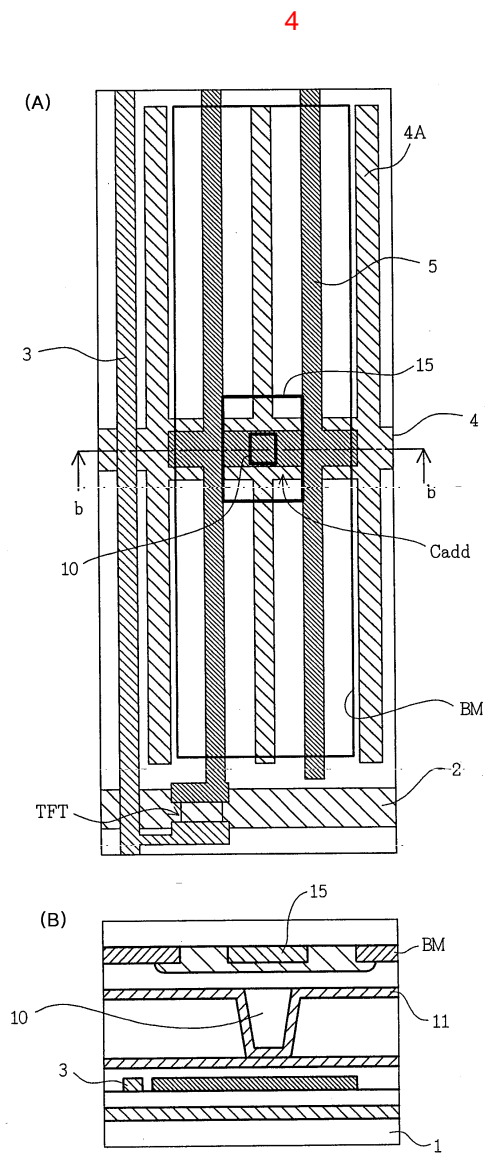
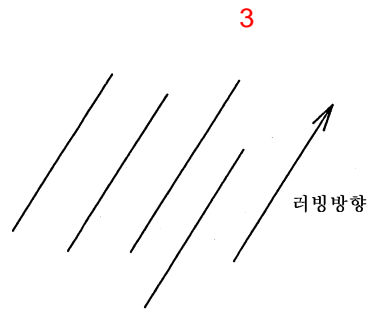
2 , 3 , 4 , 8 13 ,

.

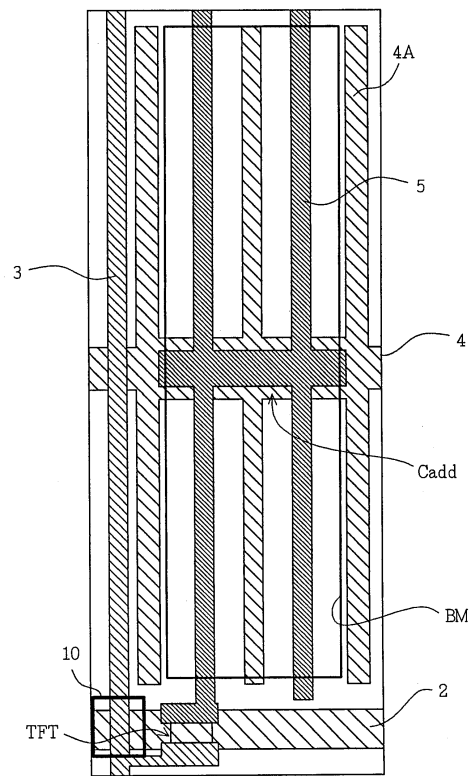


2

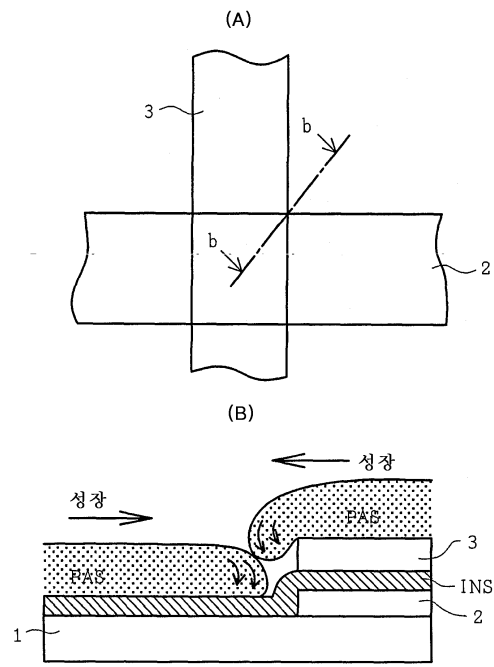




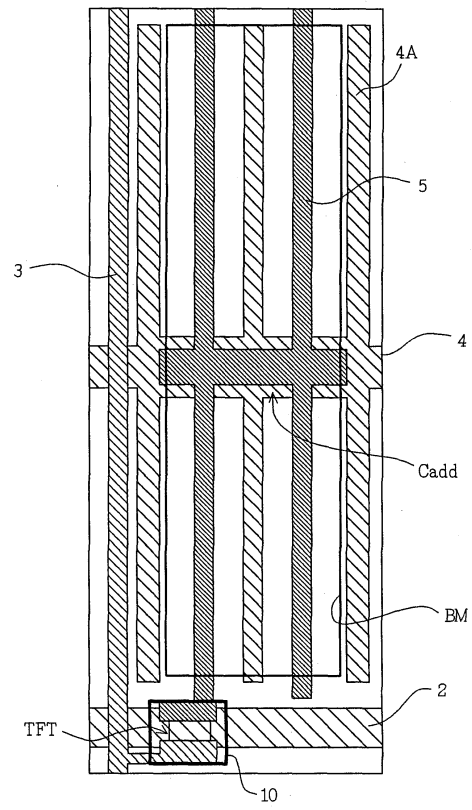
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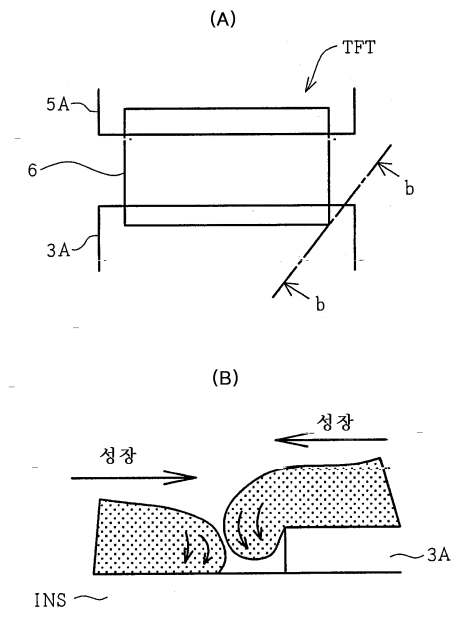
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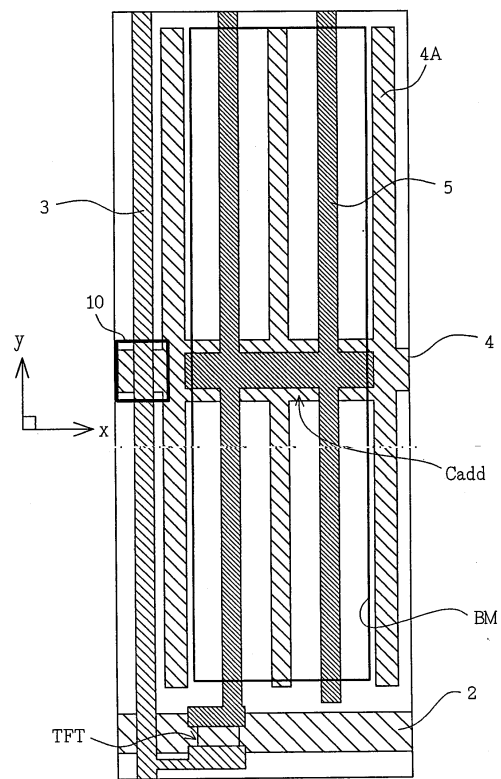
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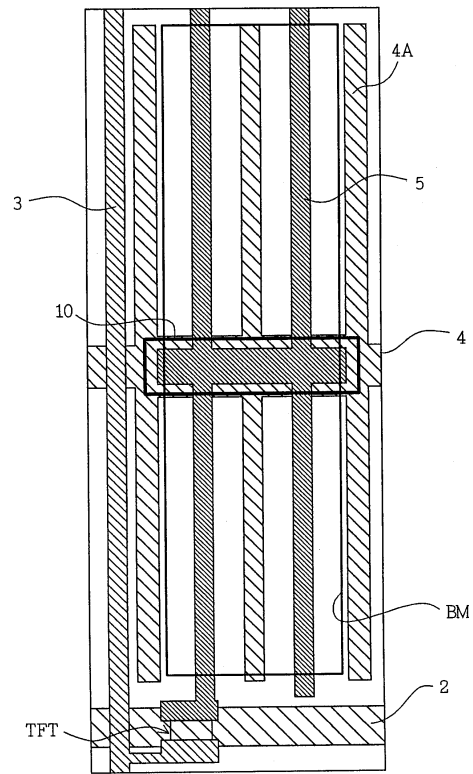
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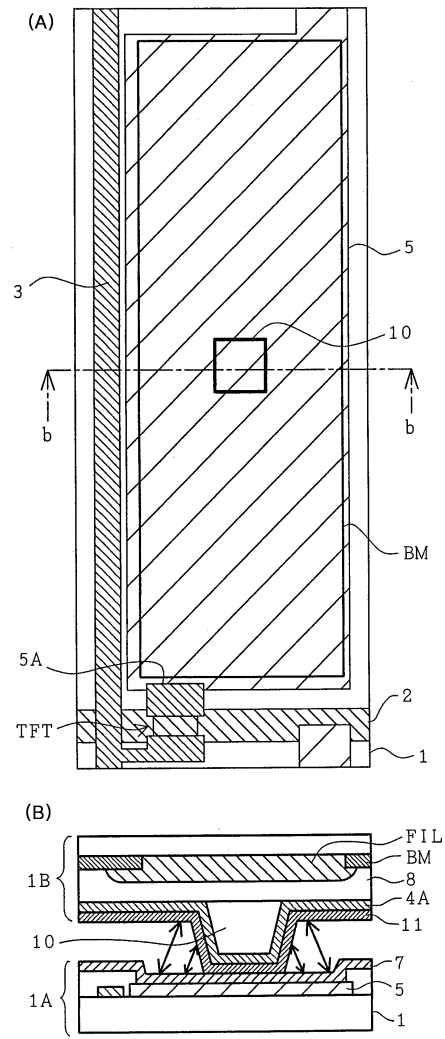
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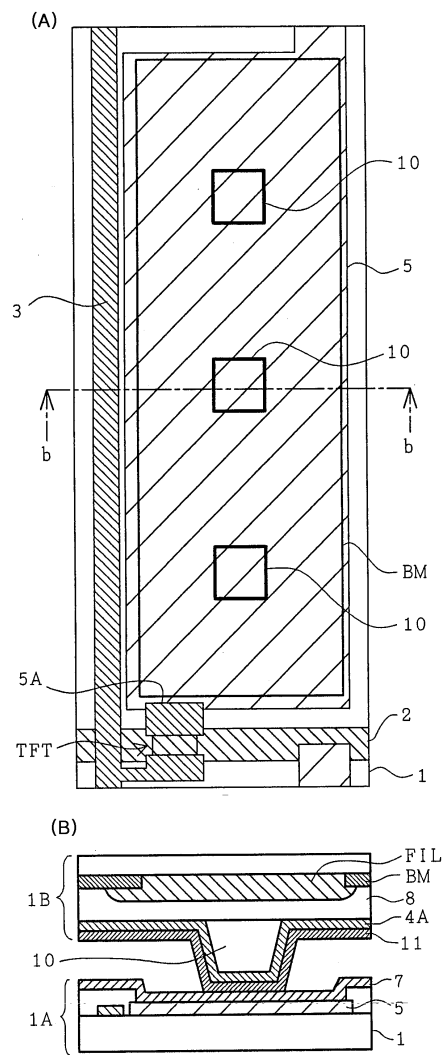
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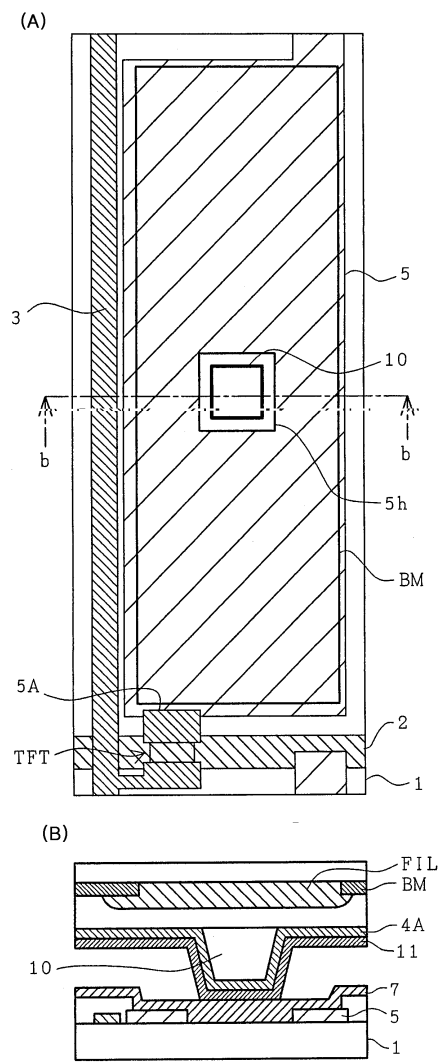
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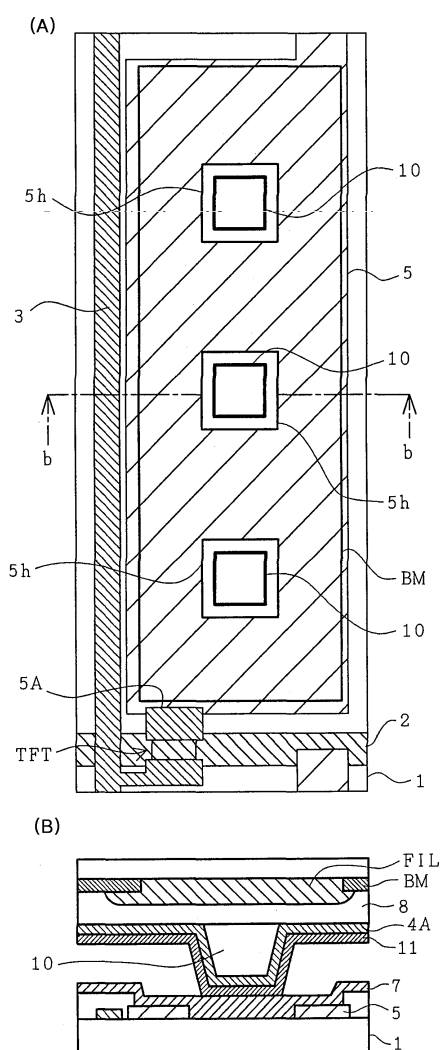
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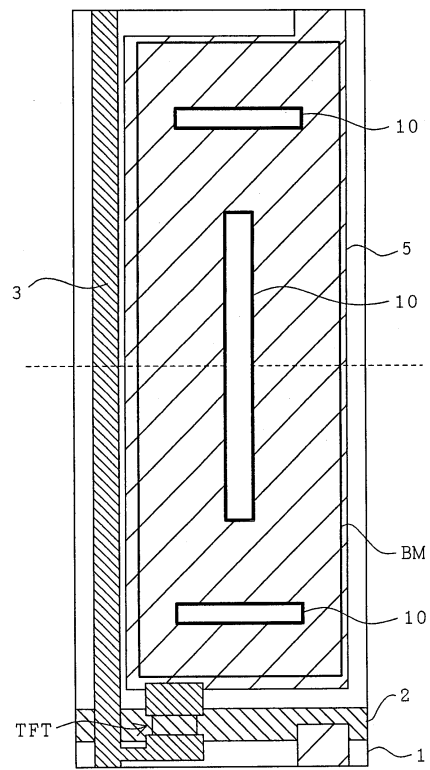
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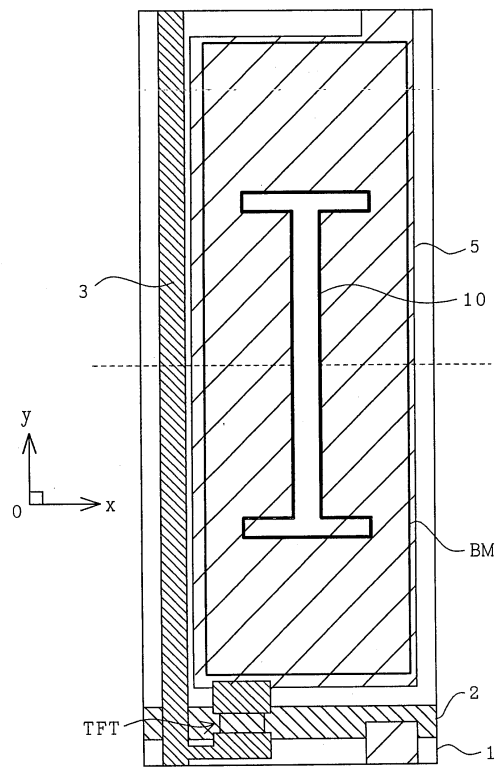
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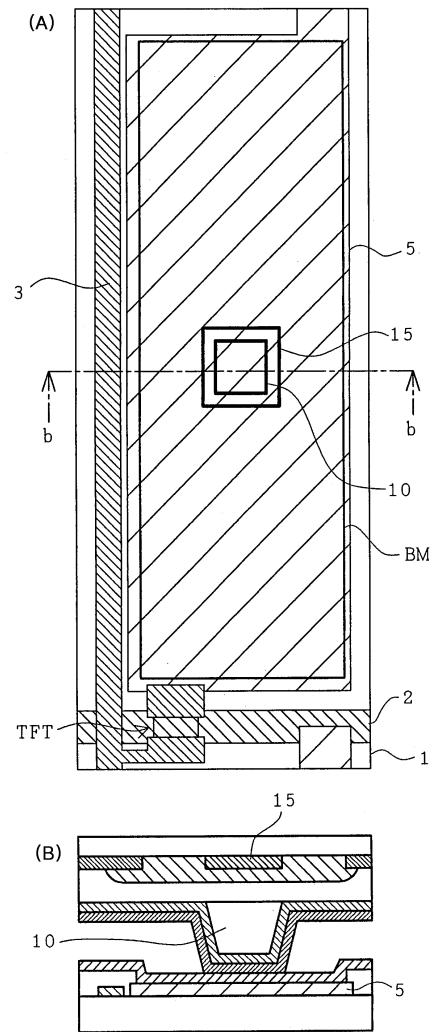
15



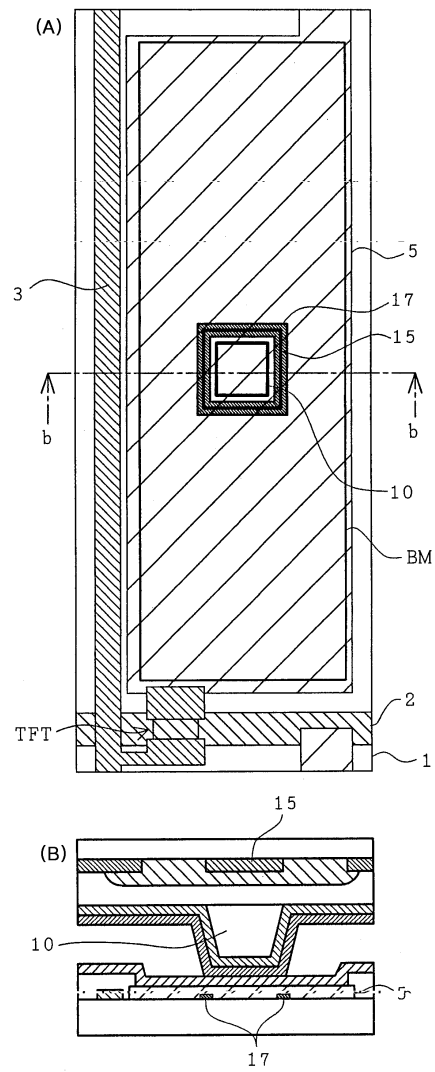
16



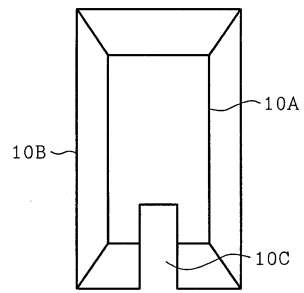
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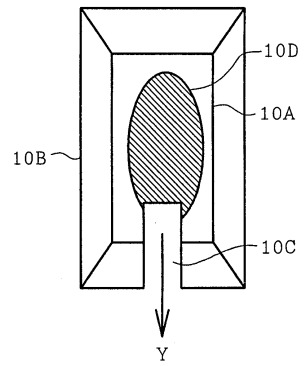
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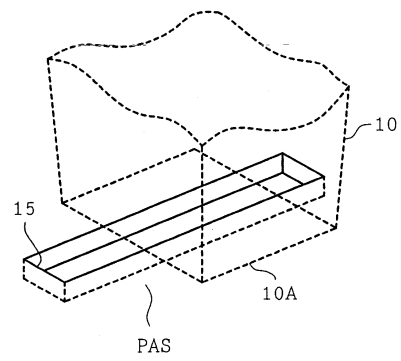
19



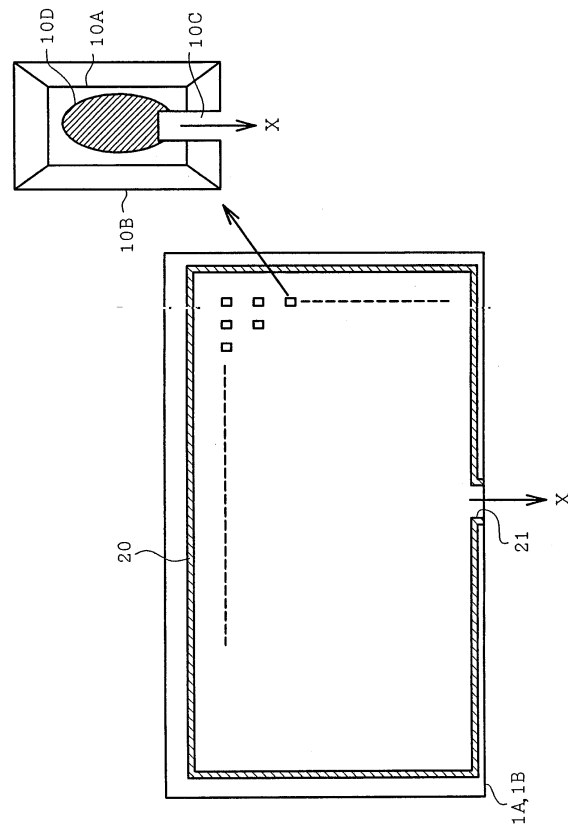
20



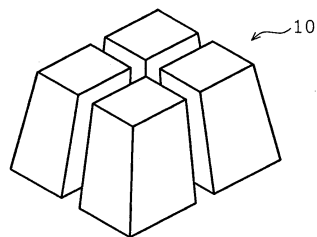
21



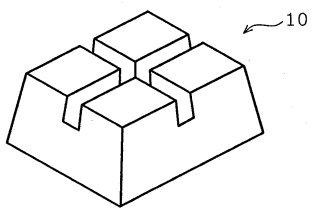
22



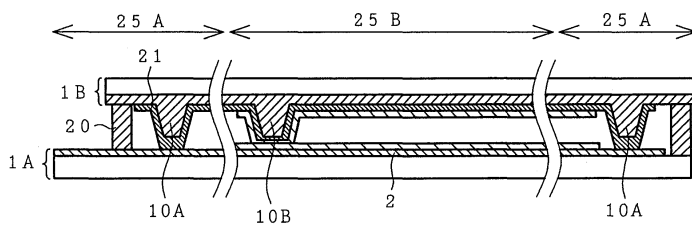
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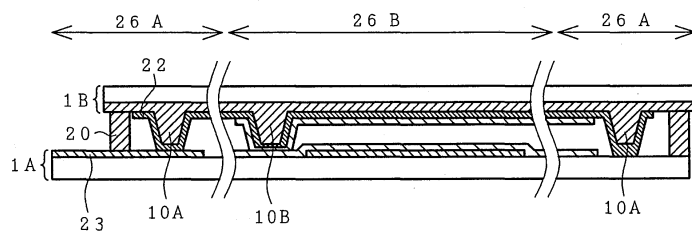
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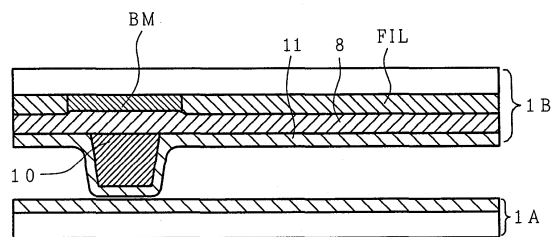
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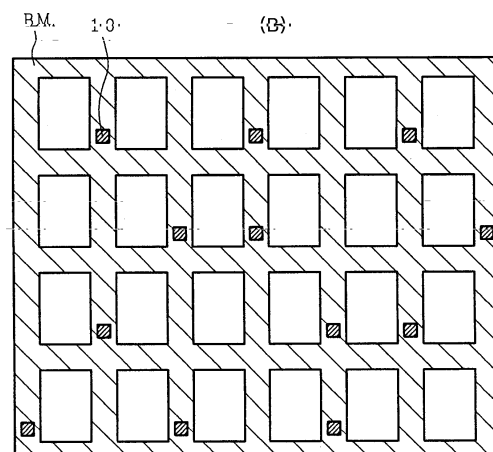
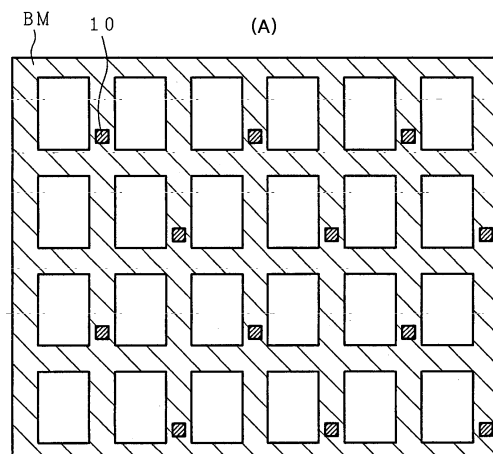
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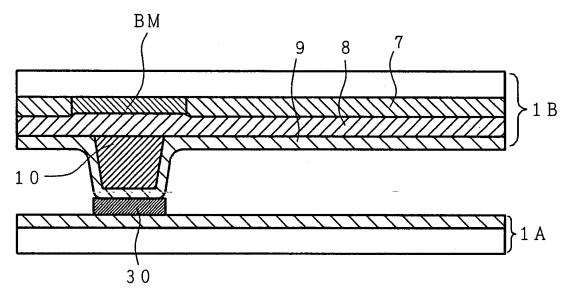
27



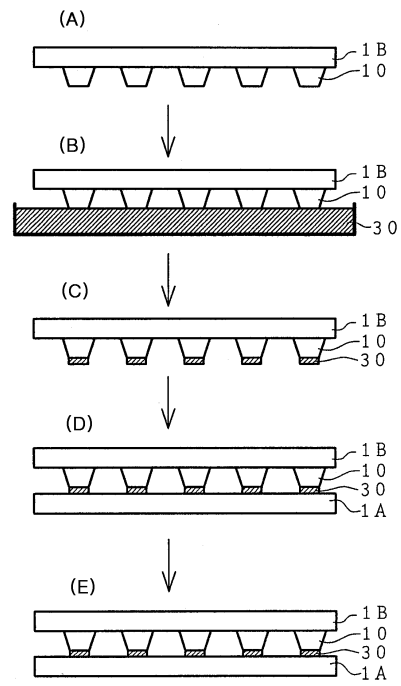
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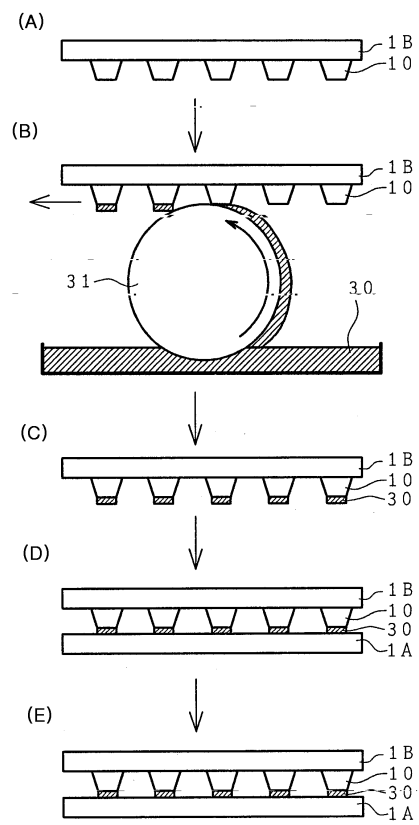
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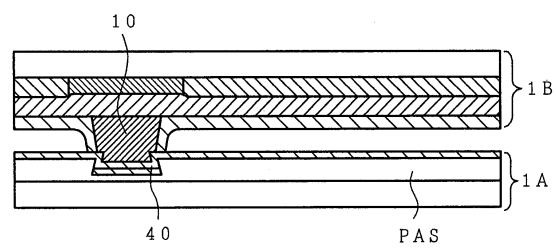
30



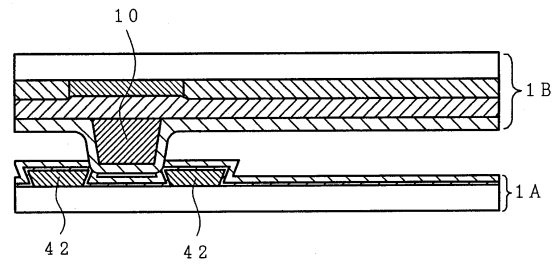
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专利名称(译)	液晶显示器		
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摘要(译)

液晶显示器包括一对相对的板，液晶膜，插入相对基板间隙中的多个电极，其布置在相对板中的一个内表面上，以便规定第一类多个像素，并且多个从(1)第一种和(2)第一种的多电极和至少一个间隔物中的至少一个中心的至少一个间隔物相邻的一对相对的电路板对的电极相邻在第二种类型的相对板中的另一个中的一个内表面中布置有多个像素，并且间隙设置在相对基板间隙中。至少一个间隔件固定到相对的板之一上。它被(1)第一种和(2)第二种多电极中相应一个的至少一个电极中相应的一个覆盖。

