

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

(51) 。 Int. Cl. ⁷ (11) 2002 - 0070168
G02F 1/136 (43) 2002 09 05

(21) 10 - 2002 - 0029015
(22) 2002 05 24
(62) 2000 - 0018592
: 2000 04 10 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
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1 5 1 가 가

1 5 1 가 가

1 5 1 가 가

(74)

(54)

$$\begin{array}{ccccc} & & , & & \\ & 1 & & , (1) & 1 \\ , (2) & 1 & & & \end{array}$$

, (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

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19

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20

19

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21

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22

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23

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24

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25

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26

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27

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28(A)

,

28(B)

,

29

,

30(A) 30(E) 29

,

31(A) 31(E) 29

,

32

,

33

.

,

(散在)

(散在)

가

3.22), 8 - 114809 (1996.5.7), 2907137 , 8 - 76131 (1996.4.2)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))

2
5,598,285

가

1997, 1 28

()(2)

(1)

(2)

x

(2)

가

(TFT)

(4)

(2)

x

(4)

(± y)

(4A)

3

(4A)

(4)

(4)

(4A)

(5)

가

,

(5)

(1)

(1)

가

, (4) 가
 , (4) (2) (4) (1) (2)
 (INS) (TFT) (INS)
 ((3) (2) (4)
 (Cadd) , ,
 Si (INS) (2) (TFT) ,
 (6) (6) (inverted staggered structure) (TFT) 가
 , (6) (3A) (5A) (3) (5)
 , 1(A) y (3) (3) (3) (3A)
 (6) ,
 , (3) 1(A) ,
 가 (5A) (3) (5)
 , (5) 2 (4A) y ,
 (5) (4A) ,
 , (5) (4) (4A) (INS)
 ,
 (Cadd) (5) (TFT) 가 (TFT) 가 (3)
 (2) (5) (Cadd) (TFT) 가 (TFT) 가
 , , (1) (PAS)
 , (TFT) 가 (PAS) (7)
 ,
 가 TFT (1A) (7)
 (1B) ,
 BM), (BM) (1B) (1A) (FIL) (8) (FIL) ()

0) 가 , (8) (Cadd) 가 (1)

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

(10) (Cadd) , (11) (10) (4)

, (10) 가 (BM) , (4)

, (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) (7), (11) (1B) (11) , TFT (1A) , (7), (11)

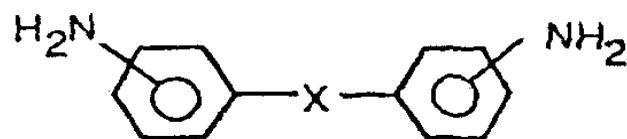
, (1A) (10) 가 (7) (10) (11)

2 3 , , 가 ,

(7), (11) 가

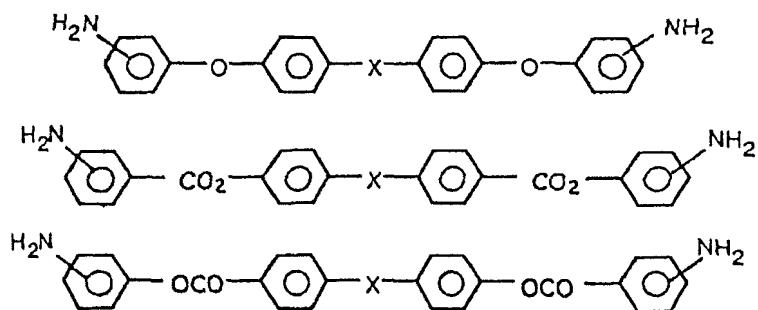
, 2,2 - [4 - (p -)]
50nm

1



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

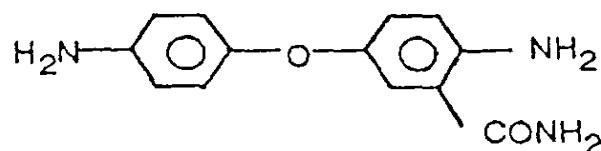
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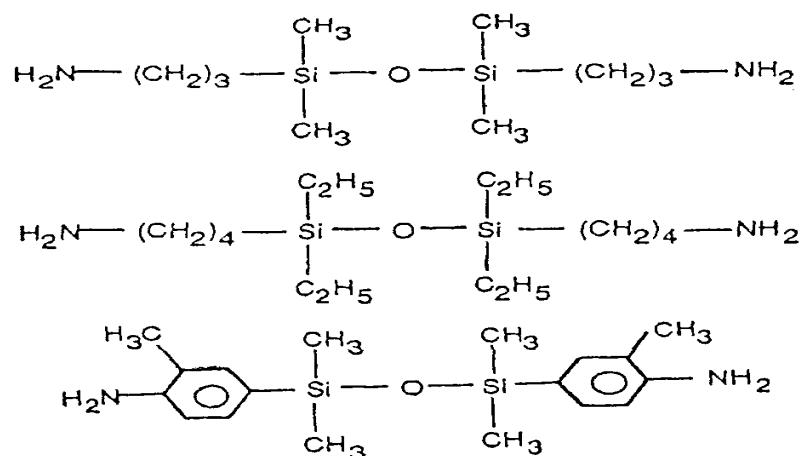
(1 , X) , ()

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

3



4



가

가 , 3,3' - , 3,3' - - 4,4' - , 1,6 - , 2,2' - - 3
 - , 2,2' - [4 - (4 -) , 2,2' - [4 - (4 -) , 2,2' - [4 - (4 -) , 2,2' - [4 - (4 -) , 2,2' -
 [4 - (4 -) , 2,2' - [4 - (4 -) , 2,2' - [4 - (4 -) , 2,2' - [4 - (4 -) , 2,2' -
 [4 - (4 -) , 2,2' - [4 - (4 -) , 2,2' - [4 - (4 -) , 2,2' - [4 - (4 -) , 2,2' -
] , [4 - (4 -) , 2,2' - [4 - (4 -) , 2,2' - [4 - (4 -) , 2,2' - [4 - (4 -) , 2,2' -
] , [4 - (4 -) , 2,2' - [4 - (4 -) , 2,2' - [4 - (4 -) , 2,2' - [4 - (4 -) , 2,2' -
] , [2 - (4 -) - 3,4,5 - , [2 - (4 -) - 3,4,5 - [2 - (4 -) - 3,5 - , [2 - (4 -) - 3,5 -
 [2 - (4 -) - 3,5 - , [2 - (4 -) - 3,5 - [2 - (4 -) - 5 - n - , [2 - (4 -) - 5 - n -
 - , [2 - (4 -) - 5 - , [2 - (4 -) - 5 - - 3 - , [2 - (4 -) - 5 - , [2 - (4 -) - 5 -
 (4 -) , [2 - (4 -) - 5 - , [2 - (4 -) - 5 - - 3 - , [2 - (4 -) - 5 - , [2 - (4 -) - 5 -
 - 5 - n - , [2 - (4 -) - 5 - , [2 - (4 -) - 5 - , [2 - (4 -) - 3 - , [2 - (4 -) - 3 -
 - t - , [2 - (4 -) - 5 - , [2 - (4 -) - 5 - , [2 - (4 -) - 3 - , [2 - (4 -) - 3 -
 5 - , [2 - (4 -) - 3 - , [2 - (4 -) - 3 - , [2 - (4 -) - 5 - , [2 - (4 -) - 5 -
] , [2 - (4 -) - 3 - , [2 - (4 -) - 3 - , [2 - (4 -) - 5 - , [2 - (4 -) - 5 -
 , 1,1 - , [2 - (4 -) - 5 - , [2 - (4 -) - 5 - , [2 - (4 -) - 5 - , [2 - (4 -) - 5 -

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

[3]

4A 4B , 1A 1B

1A 1B (10)가 (1B), (10)
(BM) (15), (15) (10)
(10)

$$1A \quad 1B \quad (10) \quad (11) \quad (4)$$

,

$$(10) \quad ,$$

$$, \quad , \quad (15) \quad (\text{BM})$$

，
（二）
（三）

5 . 1A

(10) , (2) (3) (3)
 , 6A (INS) (2) (3)
 b - b (PAS) (PAS) (PAS) (3)
 (PAS) , (PAS) (3)
 , (3) () (3) (10) (3)
 , (2) (3) (10) (3)
 , (2) (3)
 [5]
 7 , 5
 5 , (10) 가 (TFT) , (TFT) (2)
 T) , (10) (TFT) (TFT) (3A) (5A)
 , 8A (TFT) , b - b (PAS) 8B , (3A)
 (3A) (PAS) , (PAS) , (PAS) , (3A)
 , (3A)
 (3A) (5A) (TFT) ,
 , (TFT) (6) (2)
 4 (TFT) (TFT) (2)
 10)
 [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 (, , (twisted nematic type))
 , 11B 11A b - b
 11A 11B 가 ,
 () ,
 2 ,
 가 ,
 3,918,796 ,
 (2), (3), (TFT)
 1975 11 11

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

, (5) (4A) (1B) ()
 가 , ITO ,
 , (5), (4A)

, (5) (10) 가 (1B)

(10) 11B , (8) (8)

, (8) (10) , (10) TFT (1A) (11) (7)

, 11B , 가 (10) 가

, (10) () (BM) ()

, , 11A, 11B 12A, 12B ,

3

[9]

13A 13B , 11A 11B

13A 13B , 11A 11B (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 16 , x y 2

$$\begin{array}{ccccc} & x & y & 2 & \\ y & & & 2 & , x \end{array}$$

[11]

17A 17B , 11A 11B

11A 11B ,

$$, \quad (10) \text{가} \quad (1B) \quad , \quad (10) \\ (15) \quad .$$

, (15) (BM) , (BM)

TFT (1A) (17)

$$\text{TFT} \quad (1A) \quad (17) \quad , \quad , \quad (2)$$

$$(17) \quad , \quad (10) \quad , \quad (15)$$

TFT (1A)

[12]

19 , (10)

19 , (10) , 가 (10A)

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

, (10) 20 , (10A) , (10D) 가 가

가 , (10D)

가

, , , (10) (10C) , 20

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

(10)

[13]

21 , (10) 가

(10)

, 21 , (PAS) , (10) (15) 가

, (15) 가 (10) (10A) (10A)

[14]

22

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

, (10C) 가 (21)

(21)

(10)

(10)

가

[15]

23

(10)

23

(10)

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(10)

(10)

(10)

가

(10)

(10)

가

(10)

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24

(10)

[16]

25

25

, TFT (1A)

(1B)

(10)가

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(10)

(25B)

1

(10B)

(25A)

2

(10A)

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(1B)

TFT (1A)

(2)

(21)

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(21)

2

(10A)

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(10A)

(2)

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(2)

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(2)

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(2)

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(3)

(2)

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(3)

[17]

26

26 (2) , TFT (1A) (1B)
 (10) 가

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

3 (10A) 1 (10B)

, (1B) () (22)

, 3 (10A) TFT (1A) 3 (10A)
 (22) (23)

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

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

(22) TFT (1A) 가

[18]

TFT ,

가

TFT , 가

, TFT 가 TFT

TFT , TFT , 가 ,

[19]

27 (1B) (10)

(1B) (BM), (FIL) 가 ,
 (8)

(8)

(10) 가

(10)

(10)

가

(1B)

, TFT (1A)

[20]

28A

(BM)

(10)

(10)가

(10)

()

[21]

28B 20
, ()

(10)

가

[22]

29

1B

29
(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)

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

, (10) 가 (40) 가 , TFT (1A)

, 33 (40)
(), (42)

, 가

, (10) 가 가 (10) 가 , 가

, (), , 가
(), , 가

, (10) 가

(57)

1.

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가

가 ,

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가

15.

12 ,

가 , 가

16.

12 ,

17.

1 16 ,

가

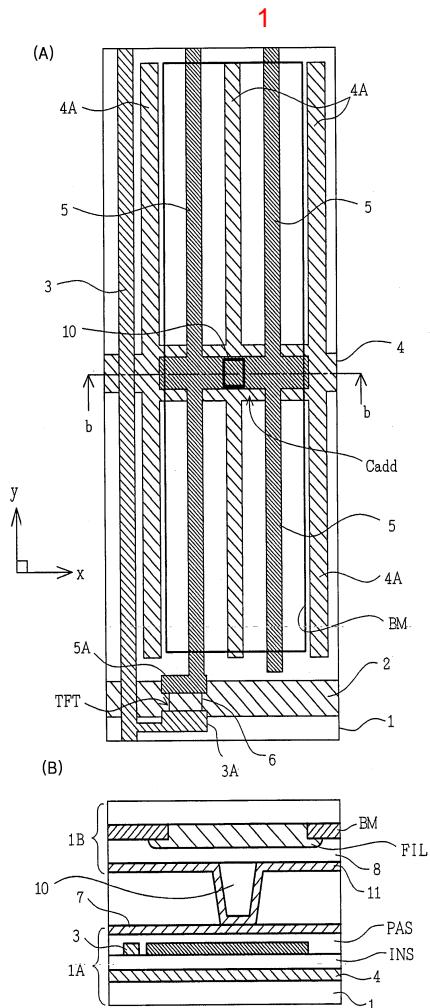
18.

1 16 ,

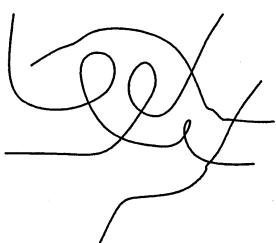
가

19.

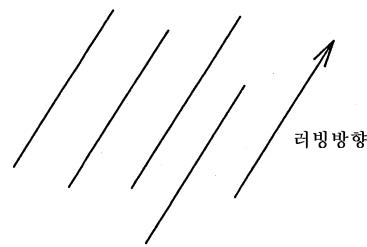
2 , 3 , 4 , 8 13 ,



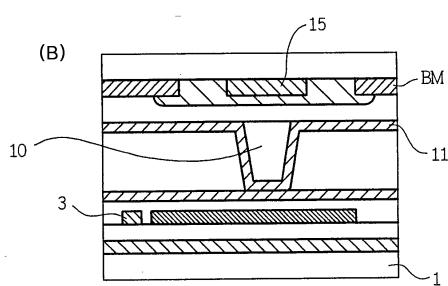
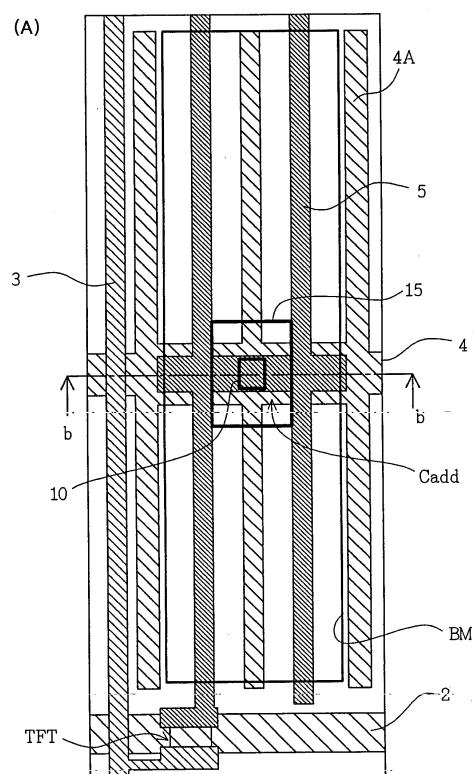
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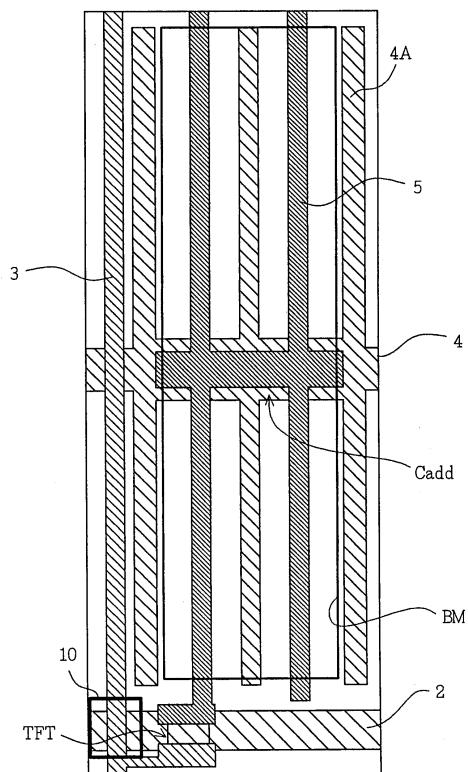
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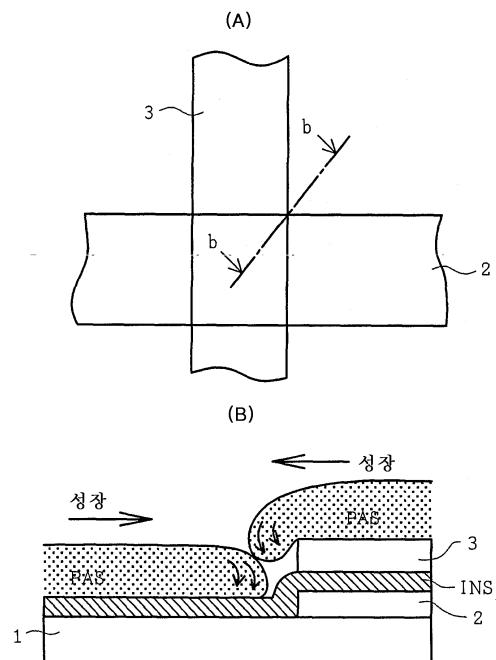
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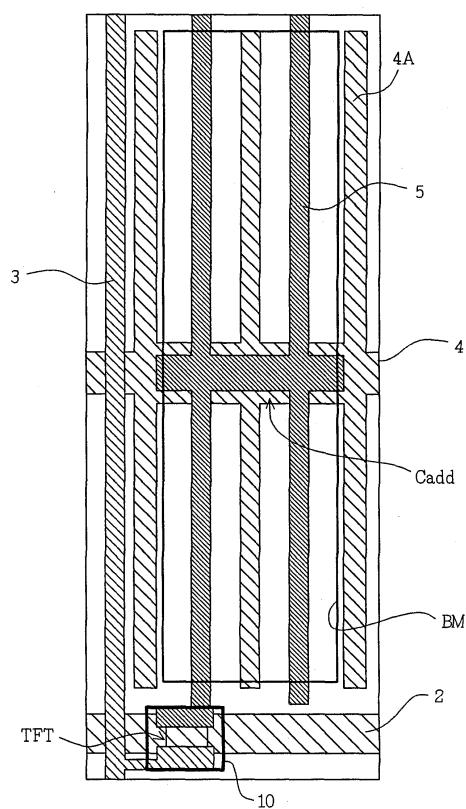


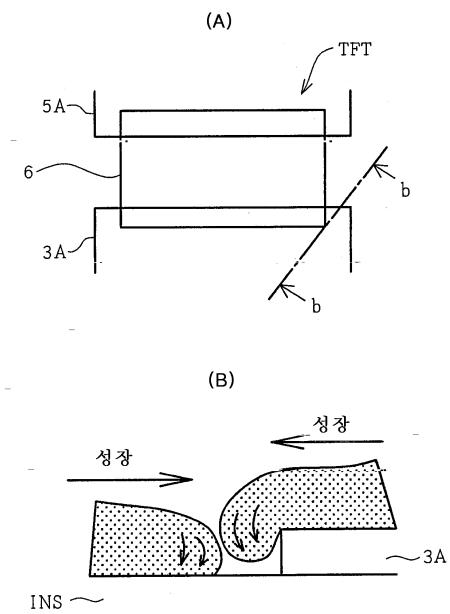
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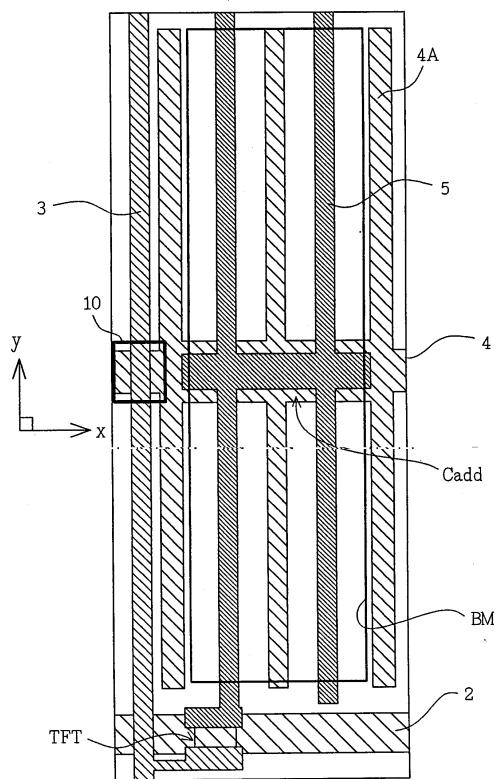
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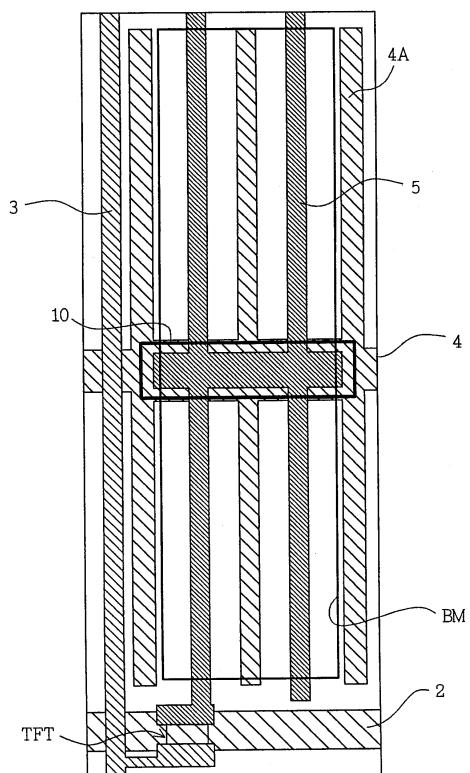




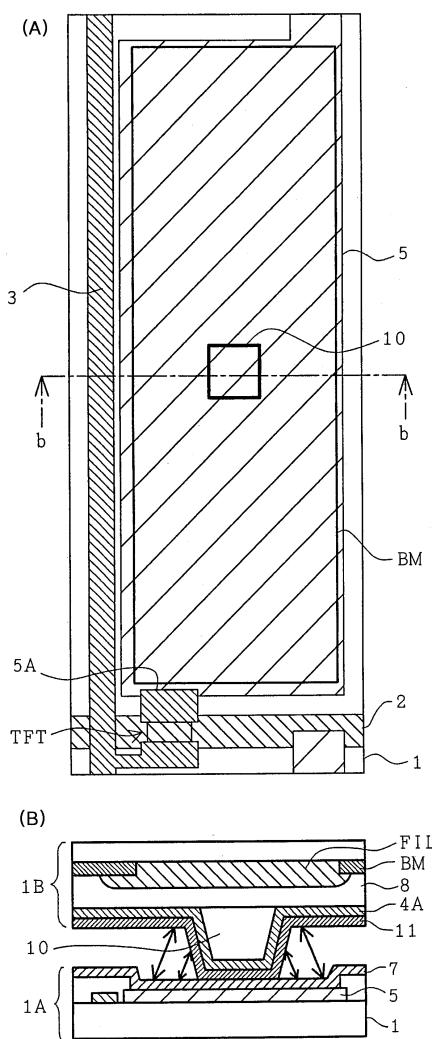
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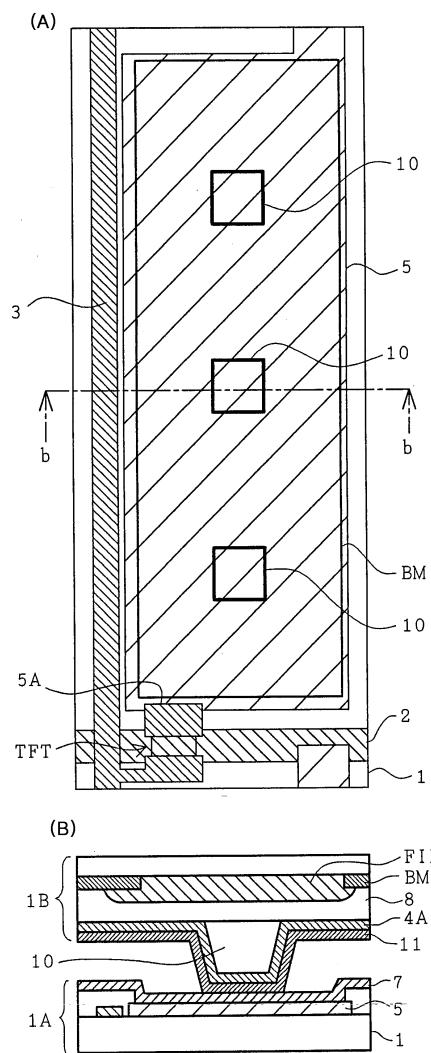
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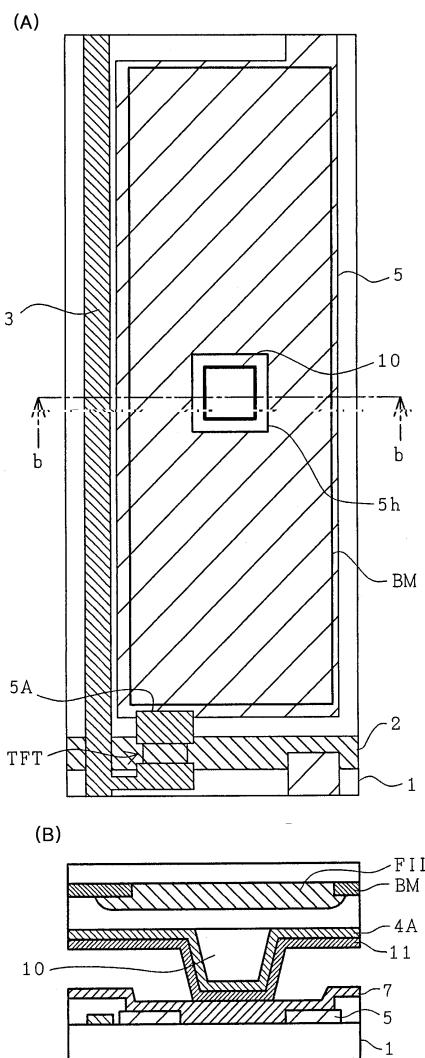


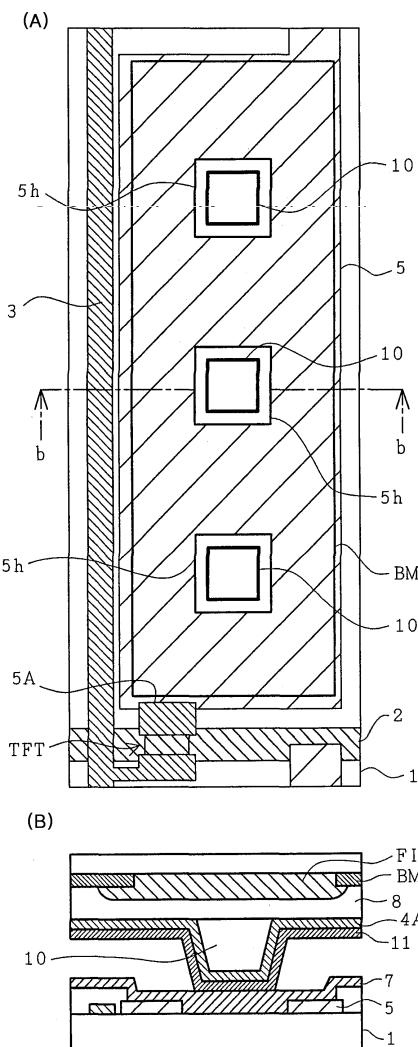
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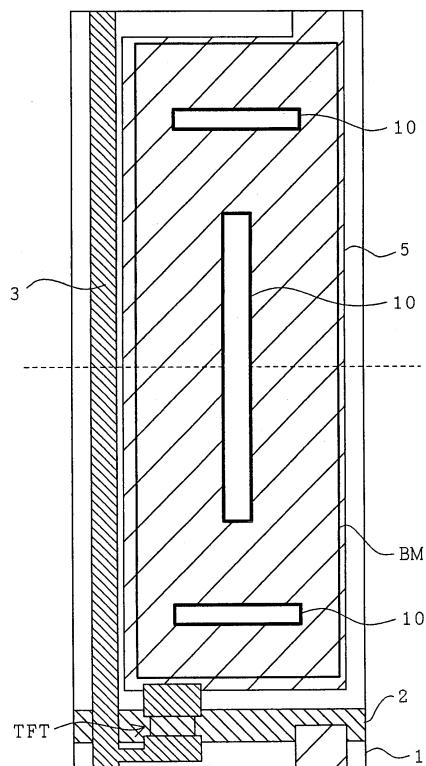
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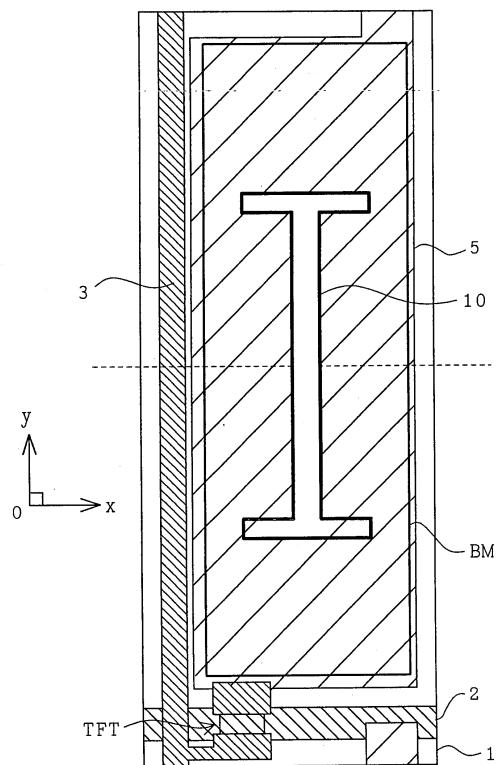


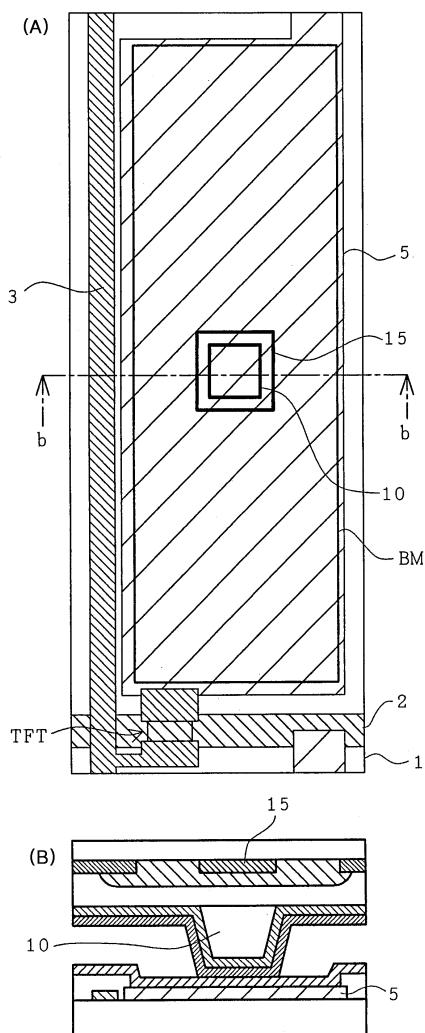


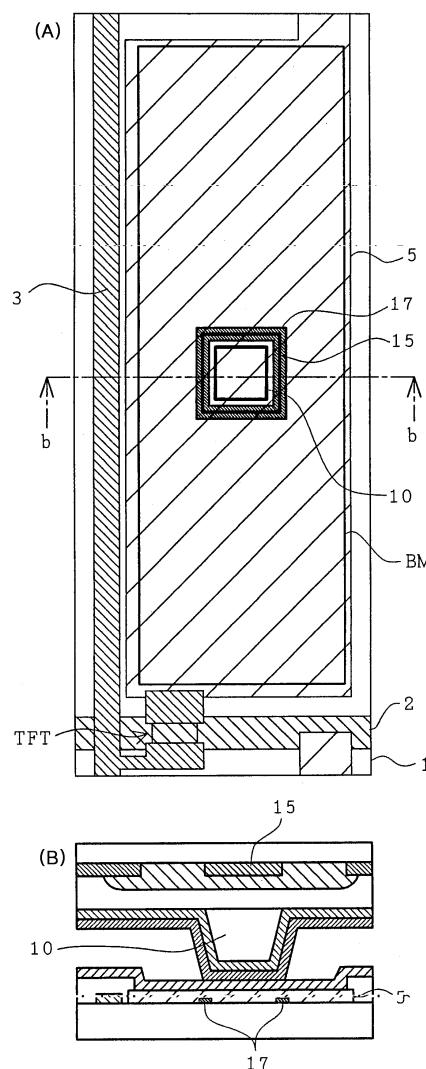
15



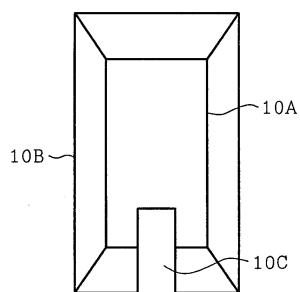
16



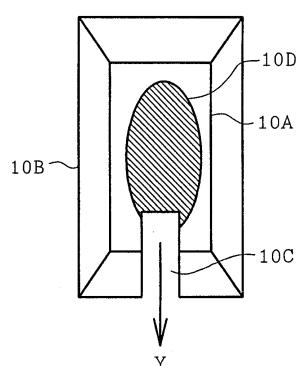




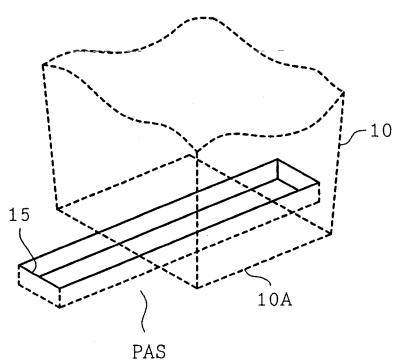
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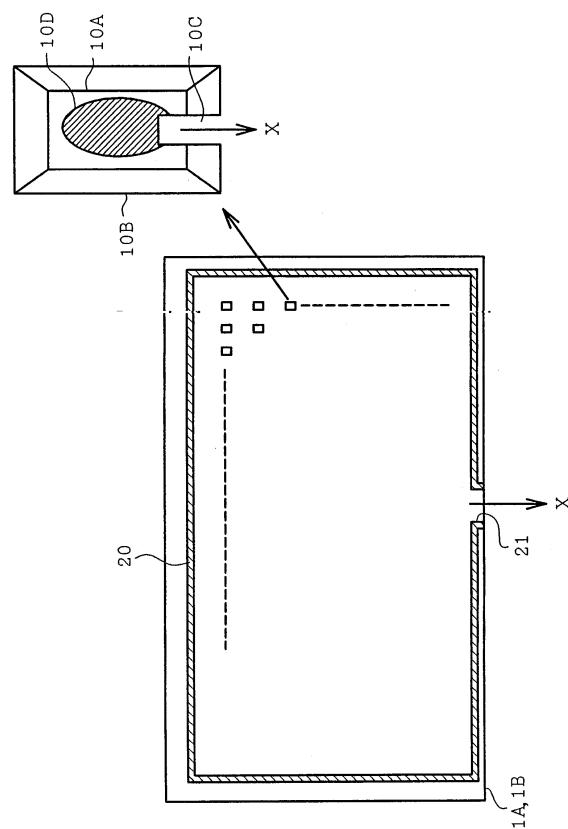
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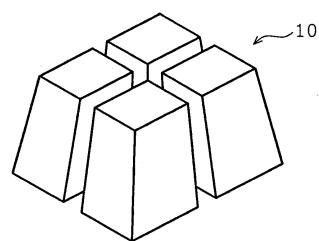
21



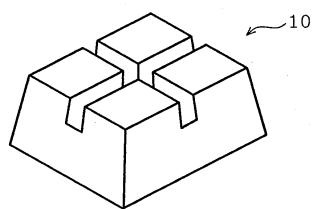
22



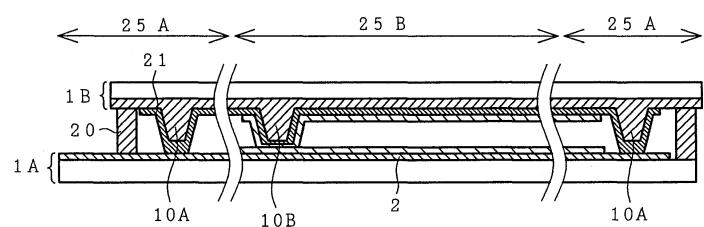
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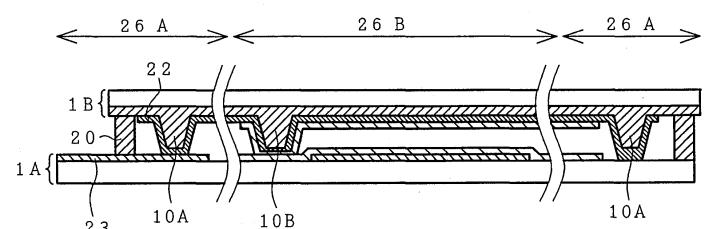
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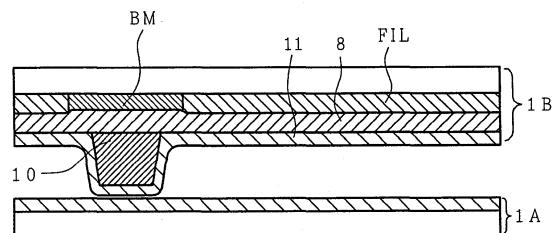
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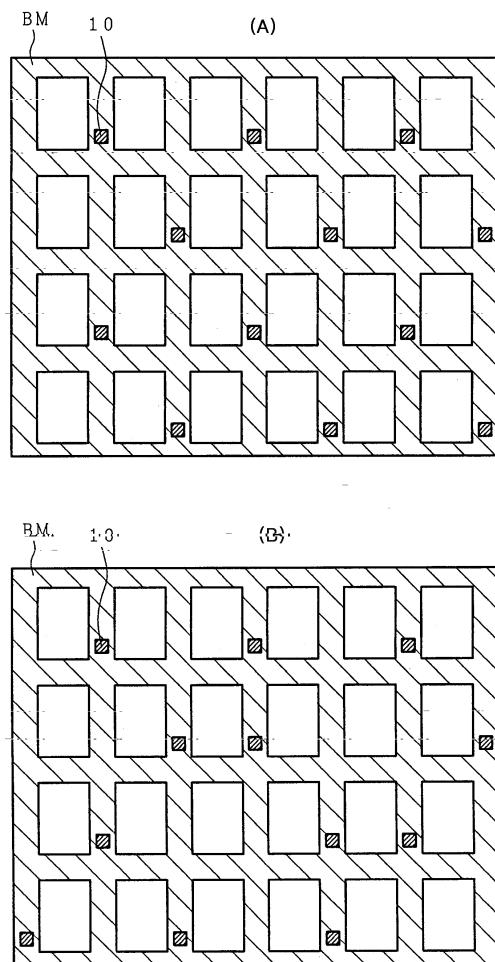
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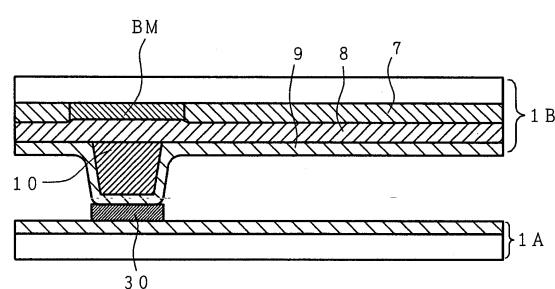
27



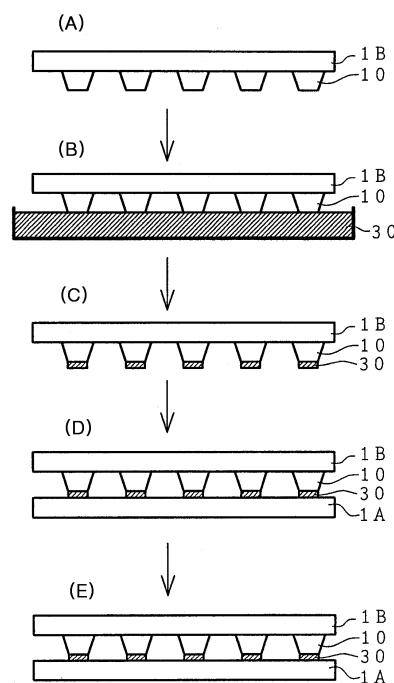
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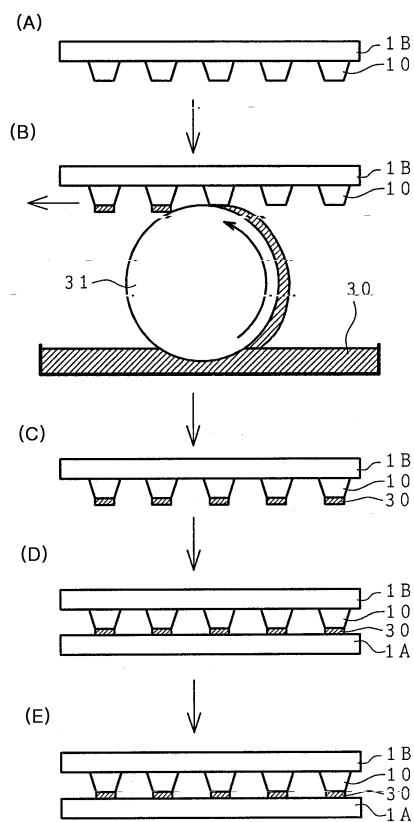
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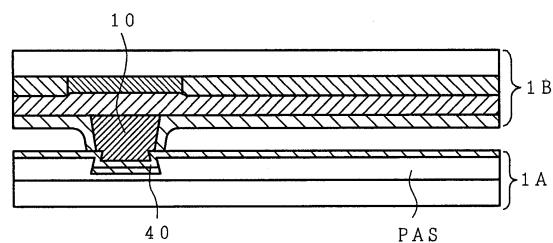
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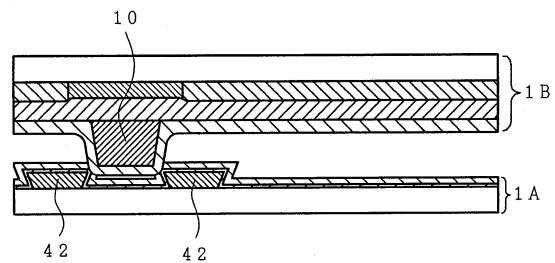
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32



33



专利名称(译)	液晶显示器		
公开(公告)号	KR1020020070168A	公开(公告)日	2002-09-05
申请号	KR1020020029015	申请日	2002-05-24
[标]申请(专利权)人(译)	日立HITACHI SEISAKUSHODBA		
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IPC分类号	G02F1/1335 G02F1/1362 G02F1/1368 G02F1/1337 G02F1/1333 G02F1/1339 G02F1/136 G02F1/1343		
CPC分类号	G02F1/133707 G02F1/13394 G02F1/136213 G02F1/134363 A01G18/65 A01G18/68		
优先权	1999106382 1999-04-14 JP 1999106383 1999-04-14 JP		
其他公开文献	KR100396638B1		
外部链接	Espacenet		

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)第二种的多个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上布置有多个像素，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。

