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(43)2003 - 0005003
2003 01 15(21) 10 - 2002 - 0036643
(22) 2002 06 28

(30) JP - P - 2001 - 00206927 2001 07 06 (JP)

(71) 가 가
1 1 1(72) 가
1 9 2가 가
1 9 2가 가

(74)

:

(54)

(PX) , , (頂部) 5
 $15\mu\text{m}$, 가 $\pm 0.5\mu\text{m}$
 40% 80% , 4.5° 가
 35% .

1

1

2 1

3 2 -

4

5

6

7

8 7 A

9 7 B

10 7 C

11 (a) 7 A
B

11 (b) 7 C
(c) 7

12

13 1

14 13

15 (a) (f) 1

16 13

17 1 가

18

*

10: (1) 11: (2)

12: 13: ()

14: 15:

16: 16S:

16D: 17:

18: 19:

20: 21, 22:

23: 23c: ()

23d: 24: (TFT)

25: 26:

26c: 26d:

29, 30: 31: ()

32: 33:

34: 36: ()

37: 38:

39: () 40, 40A, 40B:

50:

, 가 .

, , 가 , , 가 , , .

가 . , ,

가 .

가

1 2
1 2

$\pm 0.5\mu m$ 5 $15\mu m$ 40% 80% 가
1 4.5° 가
35%

1 2
1 2

$\pm 0.5\mu m$ 5 $15\mu m$ 40% 80% 가
 $0.1\mu m$ $1.2\mu m$

가

, .

1 3 , 1 (10) , 2
 (11) , (10) (11) (12) .

(10) (13), (23), (14), (15),
 (TFT)(24), (31) . (23) (13)
 , 가 (14) (23)
 . (15) (23) . TFT(24) (15) (1
 4) (31) (23) .

(11) 가 (36), (37), (38), (39)
 . (37) (36) . (37)
 가 (38) (37)
 . (39) (38) , (40) (37)
 (36) .

(12) (23) (PX)
 . (PX) 2 (15) 2 (14)
 (24) (15) (導通) , (14)
 (23) (23) (14) (12)
 (PX) 가 . (PX) (38)

(10) , TFT(24) (16), (18) , (19) (20)
 . (16) (13) , (amorphous)
 . (16) (13) (17) (18)
 (17) (16) , (17) (15)
 . (18) (15) (17) (32) .

(19) (20) (18) (16) (contact ho
 le)(21, 22) , (23) (14) , (21, 2
 2) (18) (16) (16S) (16D)
 (32) (17) .

(19) (32) , (21) (16) (16S)
 . (19) (32) (33) . (20)
 (32) , (22) (16) (16D) ,
 (20) (32) (14) . (19), (33),
 (20) (14) (32) (25) .

(25) (33) (29) , (26)
 . (26) (25) (29) (33)
 (30) 가 . (23) (26) , (29, 30)
 (33) . (23) (31) .

(26) (PX) 가 . ,
 (PX) (26c) , (2
 6c) (26d) .

(23) (11) (12)
 , , ,
 (26) (23) (PX) (23)
 (26) (26c) (23c) (26) (26d) (23d)
 가 .

,
 가 . ,
 . ,
 가

, 4 , (23) (23c) 가
 . 5 , 11 - 326615
 0.5 ° . , (0 ° , 1 ° , 2 ° , 3 ° ...) ±
 가 5 (가 가 ,
 , .

, 5 (下
 地) ,
 , .

가 , 가 .
 , .
 ()
 () ,

4

6

가

가 0 ° 4.5 °

20%

35%

0 ° 2.0 °

5~15 μ m

 $0.5\mu\text{m}$ $0.5\mu\text{m}$

(23c)

(L)

(23c) , 7 (23c) (L) 10μm A,
8μm B, (23c) 12μm C , 3가
A 11 (a) ,
가 0°)가 . , 8 A
(5) 가 .

11 (b)
(23c)

B

(23c)

 $8\mu\text{m}$

9

가 . , B

0 ° 4.5 °

11 (c) C (23c) 12μm
(23c) 가 10 C

가

가

5~15 μ m

5~15 μ m, 10 μ m, 가
6~13 μ m 가

9.5 μm 가 가 10 μm

(d) $\pm 0.5\mu\text{m}$ 40%

 $0.5\mu\text{m}$

, 가

$\pm 0.5\mu\text{m}$
가

가 0° ~ 4.5°
 35% 가 4.5°
 , 35% 가
 , 가 (d) $\pm 0.5\mu\text{m}$ 40%
 (peak to peak))
 0.1 μm , 1.2 μm 가 (d) $\pm 0.5\mu\text{m}$
 가 가 가 가
 40% 가 35%
 , 가 (d) $\pm 0.5\mu\text{m}$ 가 가
 , 가 가
 , 가 (d) $\pm 0.5\mu\text{m}$ 80%
 , 가 가
 3) 15 (a) (13) , Ta, Cr, Al, Mo, W (1
 Cu
 (單體)
 , Ta, Cr, Al, Mo, W, Cu
 , 15 (b) , (posi) 1 μm 4 μm
 , (pre - bake) (26)
 , 15 (c) , (34) (PX) (26)
 (26) (34) 5 μm
 9.5 μm ~ 10.5 μm (34) 52%가
 (, 10mJ ~ 200mJ
 , 15 (d) (26) (26c') (26c') (

26d')가 , (26d') (34) 10~200mJ
(26) , (26) 가 ,

15 (e) 가 (26) (melt)
(26c') (26d')가 가 (26c) (26c)
(26d)가 .

15 (f) , Al, Ni, Cr, Ag (sputter) 1000nm
(26) , (23)

(11) (36)
(37) (36) (38) ITO
(37)

(10) (11) (31) (39) (31)
(cure) (polyimide) (23) (26) , (3
(rubbing) , (39) 8)

(10) (11) (31) (39)
(gap) (seal) (12)
(10) (11) (36)
(40) (37)

(23) (23c) , (23c) (23d) (PX) 가
(23c)

13 , 4

4 12 가 ,
(0 μ m, 1 μ m, 2 μ m, 3 μ m...) $\pm 0.5^\circ$
, 가 .

12 ,
, ,
(12 4.5 15.5 μ m 26
%, 10 $\pm 0.5\mu$ m)

, 4 6 6
0 $^\circ$ 4.5 $^\circ$ 42% .

0.5 μm) , 가 40%가 (10 $\pm$ 35% , 5 . , 13 . 13 (23c) , (23c) (L) 10 $\mu\text{m} \pm 0.5\mu\text{m}$. 13 13 14 14 5 15 μm , ± 0 . 5 μm 40% 80% 40% 52%가 7.5 μm 12.5 μm , 10 $\mu\text{m} \pm 0.5\mu\text{m}$, 13 16 16 0 $^{\circ}$ 4.5 $^{\circ}$ 2.0 $^{\circ}$ 42% 26% 20% 가 . 0.1 1.2 μm , 0.7 μm . (10 ± 0 . 5 μm) , 40% 35% , 5 가 . , 80% , 가 , , 가 , 52% , 40%가 10 $\mu\text{m} \pm 0.5\mu\text{m}$, 가 , 17 40% 가 , 5 0 $^{\circ}$ 4.5 $^{\circ}$ 가 , 가 , 18 , (PX) 가 , (10) 가 (40A) (10) (11) (40B) , (50) .

가 (11) (23) (40B) (23) (12) (12) (40B) (23) (12)

가 (23) (23X) (50) (40A) (10) (23X) (12) (40B)

가 (23) (23X) (23) (23) (23) 가

(心) 가 가

가 가 가 가 가 가 가

(57)

1.

1

2

1

2

(頂部) 5 15 μ m 40% 80% 가 $\pm 0.5\mu$ m

35% 1 4.5 ° 가
 2.
 1 ,
 .
 3.
 1 ,
 1
 4.
 3 ,
 .
 5.
 4 ,
 .
 6.
 1 ,
 1 2
 , 1
 .
 7.
 1 ,
 1.2 μ m
 .
 8.
 7 ,
 0.1 μ m
 .
 9.

1

7.5 12.5 μ m

10.

1

2

1

2

$\pm 0.5\mu$ m

5

15 μ m

40%

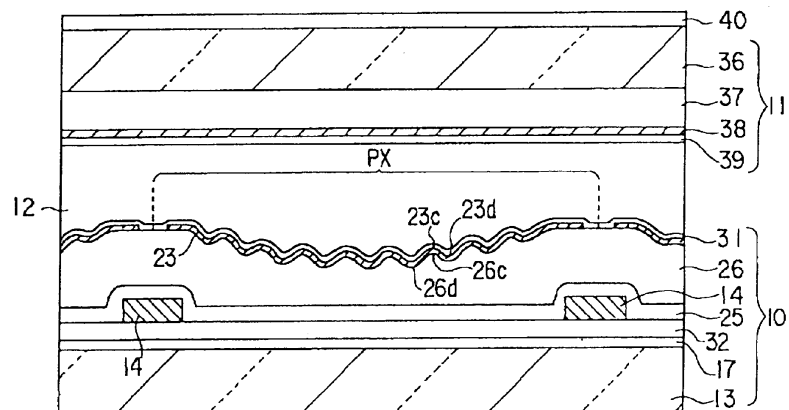
80%

가

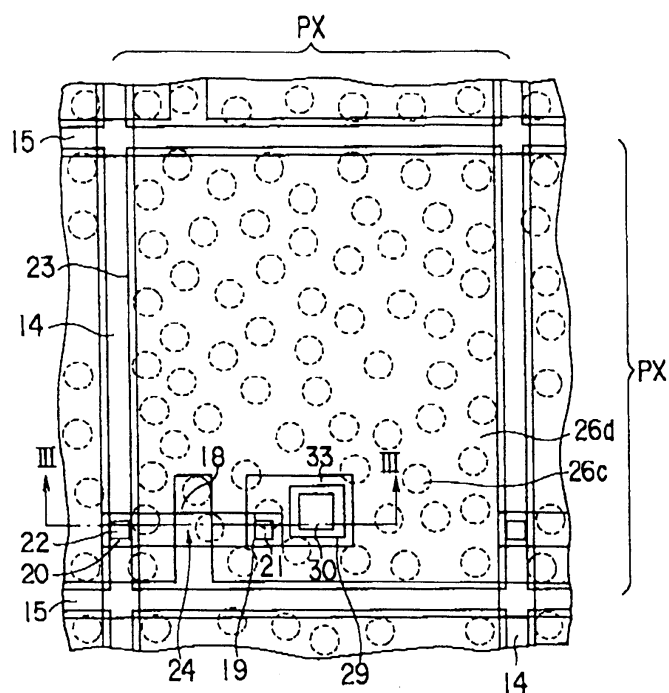
0.1 μ m

1.2 μ m

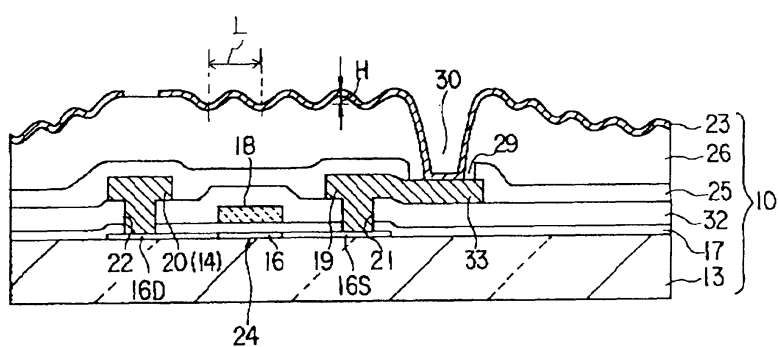
1



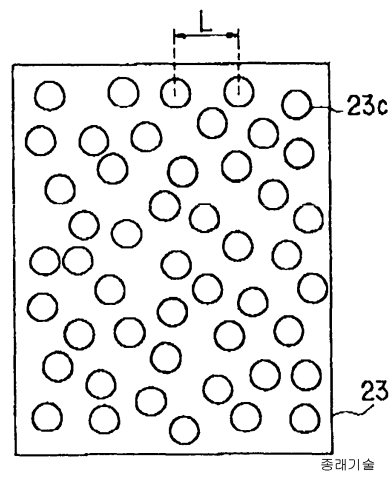
2



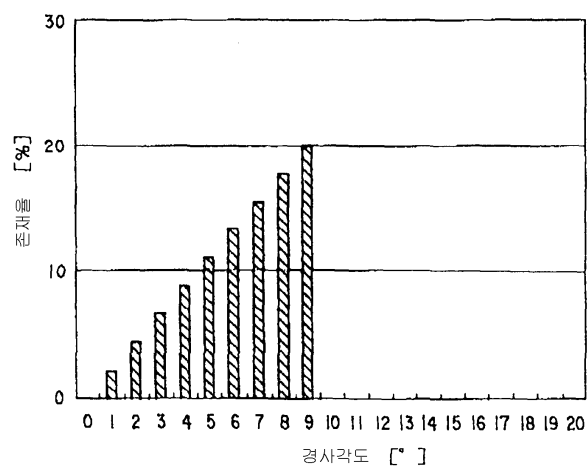
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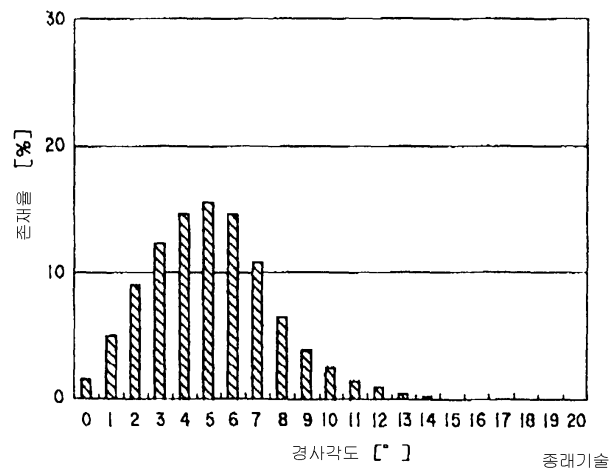
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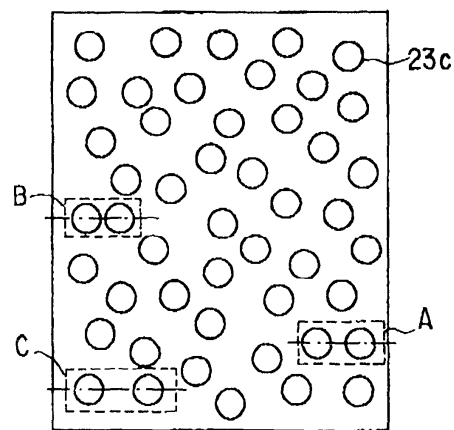
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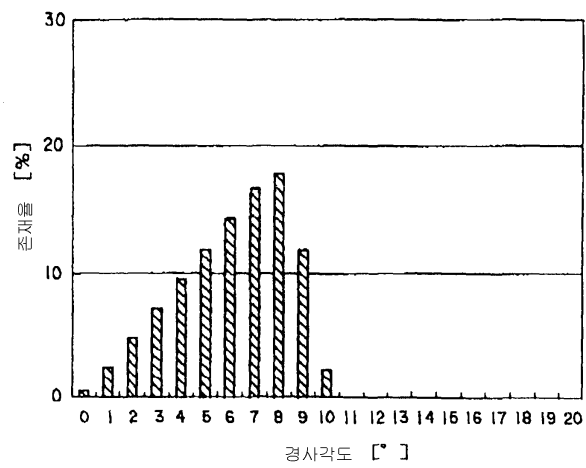
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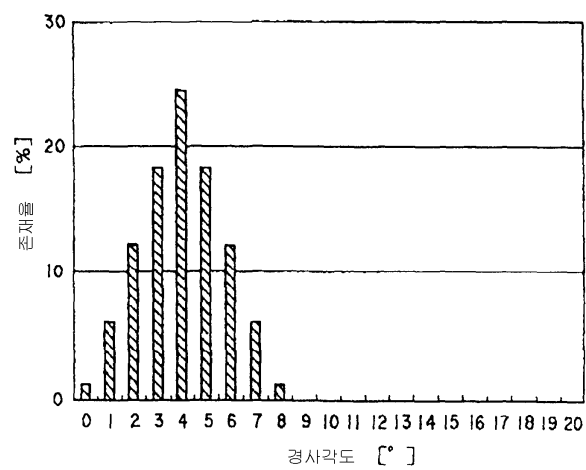
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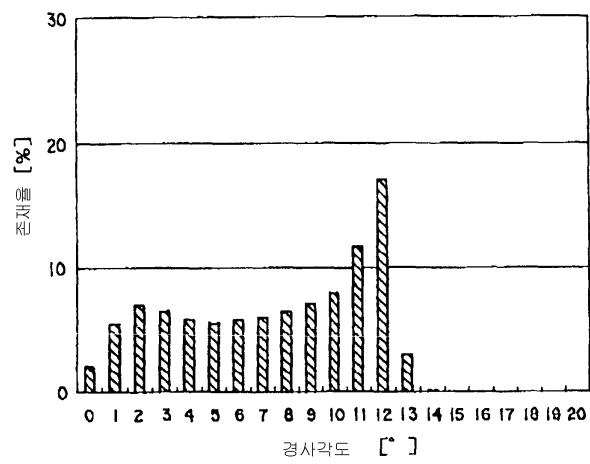
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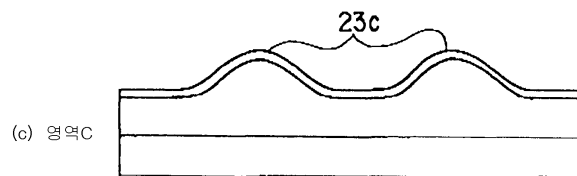
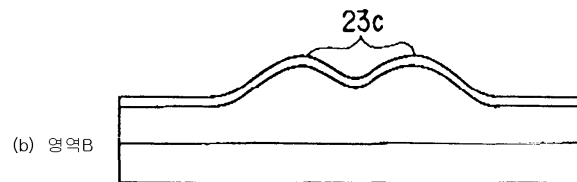
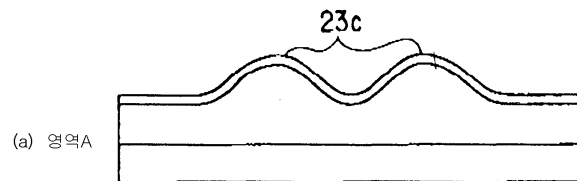
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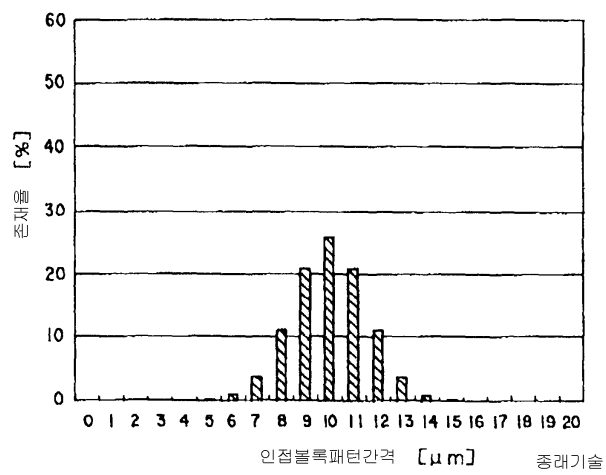
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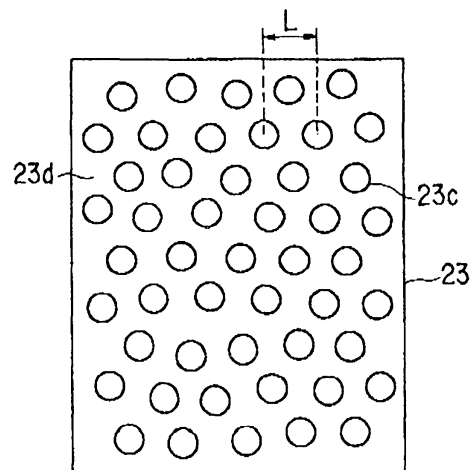
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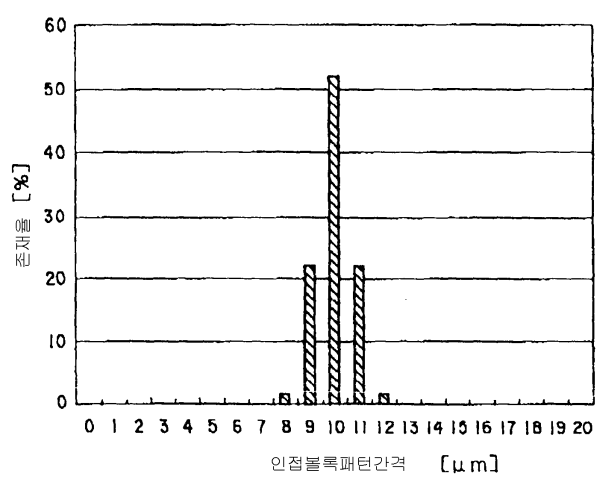
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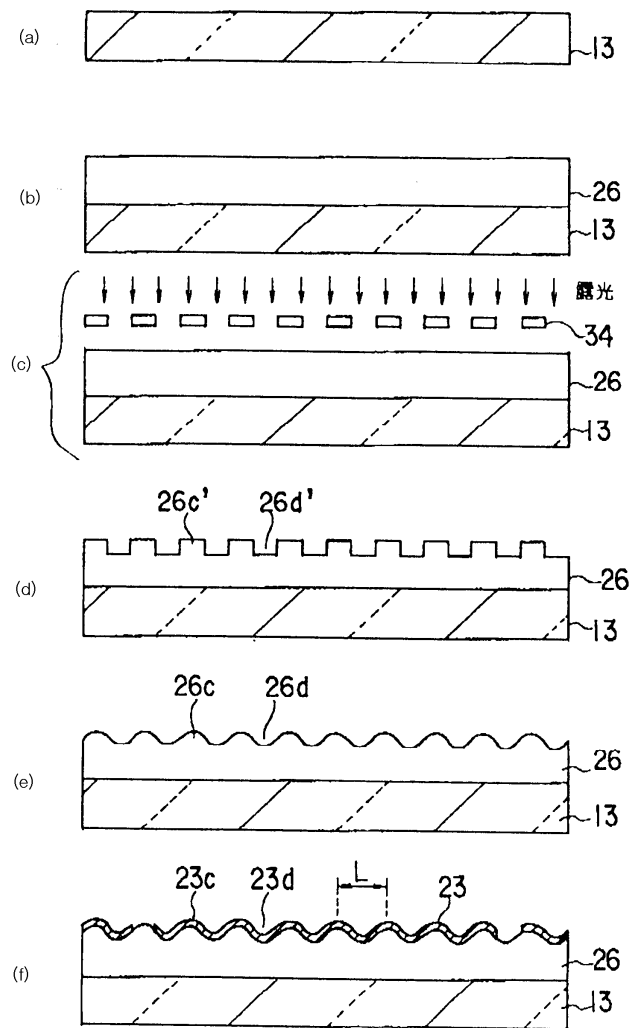
13



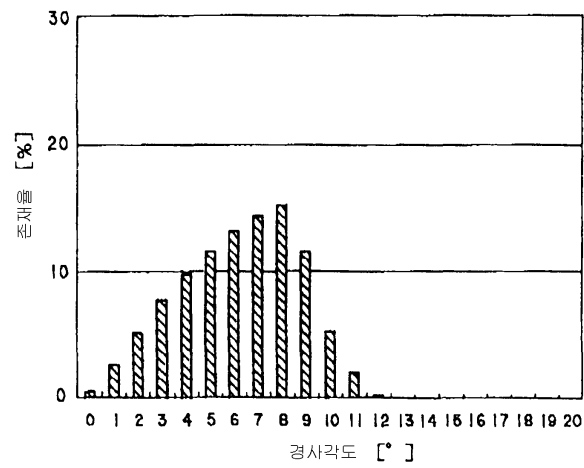
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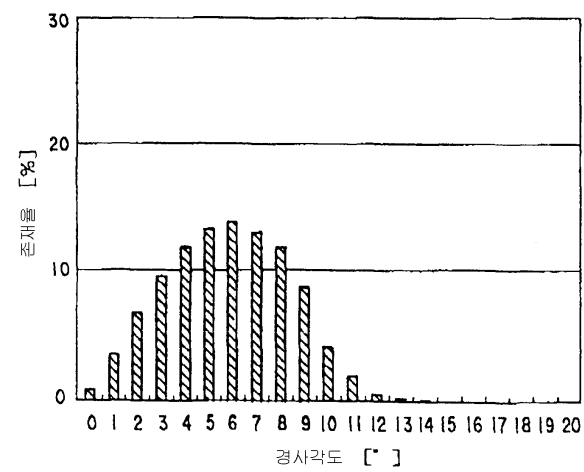
15

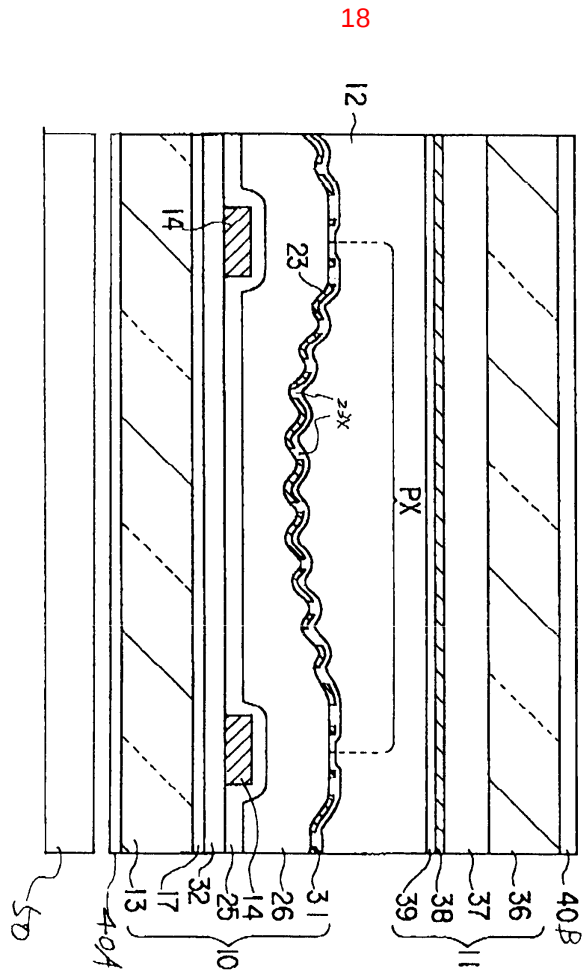


16



17





专利名称(译)	液晶显示器		
公开(公告)号	KR1020030005003A	公开(公告)日	2003-01-15
申请号	KR1020020036643	申请日	2002-06-28
[标]申请(专利权)人(译)	株式会社东芝		
申请(专利权)人(译)	Sikki东芝股份有限公司		
当前申请(专利权)人(译)	Sikki东芝股份有限公司		
[标]发明人	NAGAYAMA KOHEI 나가야마고헤이 HANAZAWA YASUYUKI 하나자와야스유키		
发明人	나가야마고헤이 하나자와야스유키		
IPC分类号	G02F1/1335		
CPC分类号	G02F1/133553		
代理人(译)	KIM MYUNG SHIN		
优先权	2001206927 2001-07-06 JP		
其他公开文献	KR100433594B1		
外部链接	Espacenet		

摘要(译)

本发明涉及反射镜的镜面反射面，其中峰间隙的存在率为 $\pm 0.5\mu\text{m}$ 范围为80%或更小，因为本发明涉及以高存在率为中心的正负间隙的液晶显示器。包括插入在阵列面板和相对板之间的液晶层，并且反射像素电极包括反射阵列面板通过相对板和液晶层收集的光，并且该反射像素电极在每个上具有凹凸像素区域（PX）超过40%并且在该像素区域内并且其中它成为围绕基板的阵列柱表面的倾斜角度，该边缘具有 4.5° 。关于像素区域的纵横比是35%还是更小。

