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2004 10 06

(21) 10-2004-0019633
(22) 2004 03 23

(30) JP-P-2003-00090834 2003 03 28 (JP)
JP-P-2003-00369354 2003 10 29 (JP)

가 가 가 가 4 1-1

(74)

(54)

CF LCD CF TFT(2) SiO (14c) (14) SiN (14a, 14b), SiO (14c) . , SiO (14c) (14) 가 .
 CF (15) CF (15) SiO (14c) , CF (15) , CF (15) 가 .
 CF (15) CF 가 , , , TFT CF (1) .
 가 .
 LCD가 .

1 1 TFT TFT

2 1 TFT 1

3 GB

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7

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9 CF

10 OC

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12

13 CF-on-TFT LCD 1

14 13 B-B

15 2 가

16 2 2-1

17 2 2-1

18 2 2-1

19 2 2-1

20 2 2-1

21 2 2-1

22 2 2-2

23 2 2-2

24 2 2-2

25 2 2-2

26 2 2-2

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28 2 2-2

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1 : TFT

2 : TFT

3 :

4 :

4a : Al

4b :

5 :

6 :

7 :

8a, 8b :

9a, 9b :

9c : n + a-Si

10 :

11 :

11a, 14a, 14b : SiN

12 :

12a :

13 :

13a : a-Si

14 :

14c : SiO

15 : CF

15a, 15b, 19a, 19b, 19b', 21, 22 :

16 :

17 : OC

18 :

19c :

20 :

가

가

TFT(105) (112) (Si₃N_x; CF (113) 「SiN」) CF (112) (113) (OC) (114), OC (114) (115) OC (114) (115) (116a) (115) (110) (116b) (117) (CB) (116a) (103) (110) (11) 8) 가, (116b) (112) CF-on-TFT TFT (113) (112) TFT(105) (111) CF (113) SiN (112) 가, (112)

, TFT SiN CF, SiN (OH-) SiN 가 CF가, TFT CF CF 가, CF 가, TFT 가, 가

2 : 10-39292

LCD , CF 가 , CF-on-TFT
 LCD

LCD , 1 가 LCD
 (SiO_x; 「SiO」 CF) CF LCD (SiO_xN_y; 「SiON」 SiN)
 LCD 1 (14) SiN TFT (1) (14a, 14b), SiO (14c) (18) TFT(2)
) 가 , CF (15) CF (15) CF SiON SiON 가 , CF
 (15) CF 가 , CF SiON SiON 가 , CF

, LCD CF LCD , LCD CF LCD , LCD SiO
 SiON SiO SiON LCD가

LCD , LCD CF 가 ,
 ,
 [1]
 , 1 TFT가 TFT LCD LCD

(1-1)

1-1

1 1-1 TFT TFT , 2 A-A TFT 1-1 LCD 1-1 TFT 1 1 2
 , 1 TFT(2)가 2 TFT (1) , , 1-1 LCD , 1-1 TFT , 1 1 2

LCD (Ti), TFT (1) (4b) (3) , (Al) (4a)
 (4)(, 2 1 (Cr), (Mo) SiN (5) , (5) (6)(,
 2 2) (4) (4) (6) (6) TFT
 (1) TFT(2) (4) (7) 가 (4) 가 (7) , AI
 TFT(2) (9a) (10) (8a) n+ (a-Si) (11) (10)
 (12) (6) (10) 가 (8a) (4) (6) , TFT(2)
 (9b) (5) (1)

CF , TFT , 가 CF
 , TFT , TFT
 ,
 SiO CF (15) (15a, 15b) , CF (15) CF (15) , CF (14)
 (14c) ,
 OC OC (17) OC (17) 9 CF (15) CF (15) (15) 가 , OC
 OC , KOH , OC (17) , OC (17) , OC (17) (5), (14)
 , OC (17) 10 , 2 , CF (15) (16) (15a) , (15b)
 (21) OC (17)
 (21) , 11 (21) 2 , OC (17) 10 , OC (17) (12)
 (22) , (16) (16) , OC (17) (14) , OC (17) , (21) , (14)
 (22) , OC (17) (16) , OC (17) (12) , OC (17) (21) , (14a)
 OC (17) , , (16) (16) , OC (17) 2 , (14) , (19b)
)
 가 3nm 20nm (14) SiO (14c), SiN (14b, 14a) Si-H 가 , SiO (14c)
 , , , , SiN (14b, 14a) (14) CF (15)>OC (17)>SiO (14c)>SiN (14a)
 , , , , , , , , (19a) (19a) C
 F (15)>OC (17) SiO (14c) SiN (14a)
 ,
 70nm (19a) 11 OC (17) (12)
 TO (18) , , 12 , ITO (19a) (19a) , (12)
 , , , , , , , , (18) (19b) I
 , 150 230 , , 200 TFT (1)
 ,
 TFT (1) TFT(2) , TFT (1)
 ,
 LCD가
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1-1 , (14) SiN (14a, 14b) SiO (14c) , TFT (1)

가 가

1

(1)

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가 3mm 20mm

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2

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가 , , 가

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가 가 , 가

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7

(= /) 0.5

(9)

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600 μm^2

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10 11

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7 12

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7 14

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가

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iON , LCD , CF SiO SiON . SiN SiO S
 , , , , , LCD , CF LCD LCD

, SiO SiON , SiN LCD , LCD .

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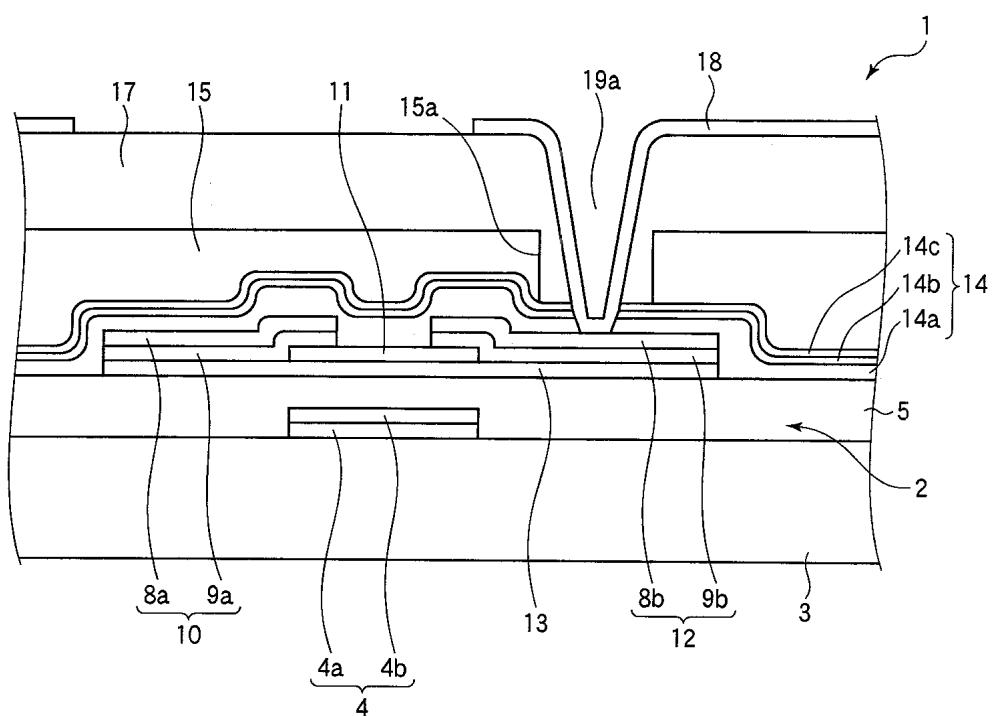
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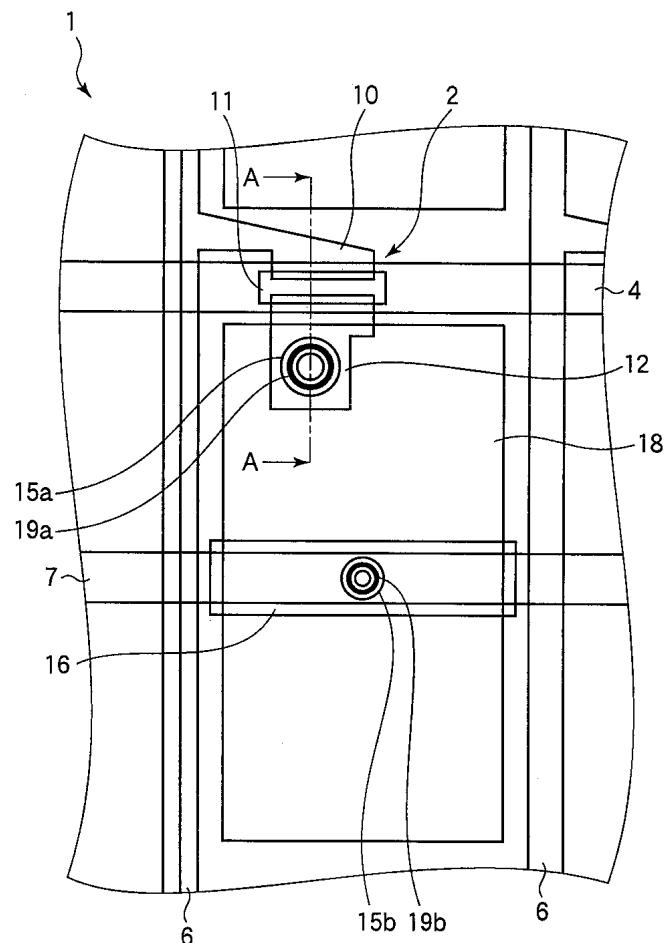
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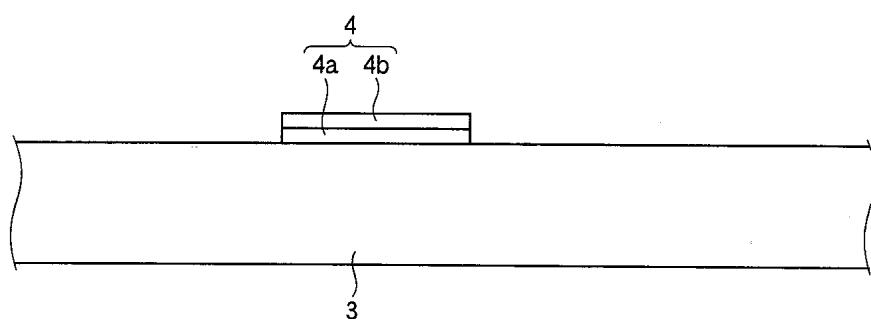
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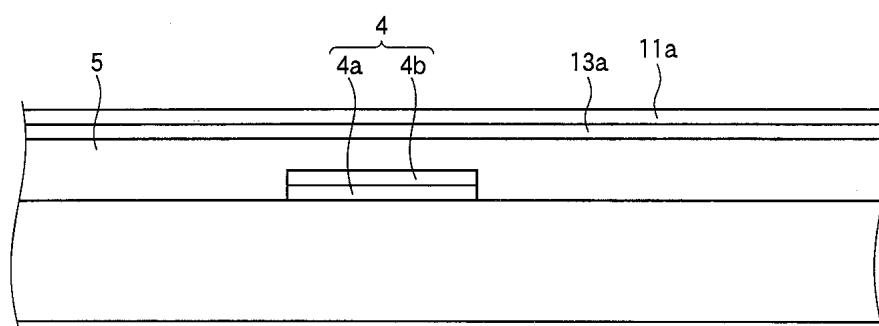
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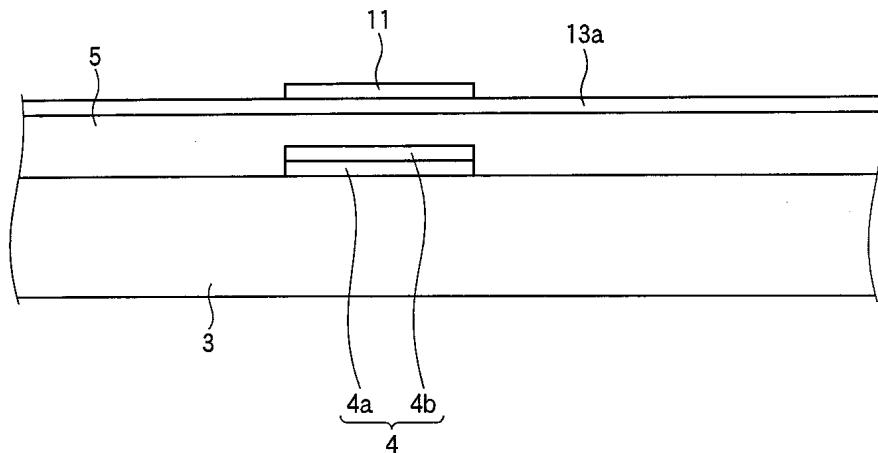
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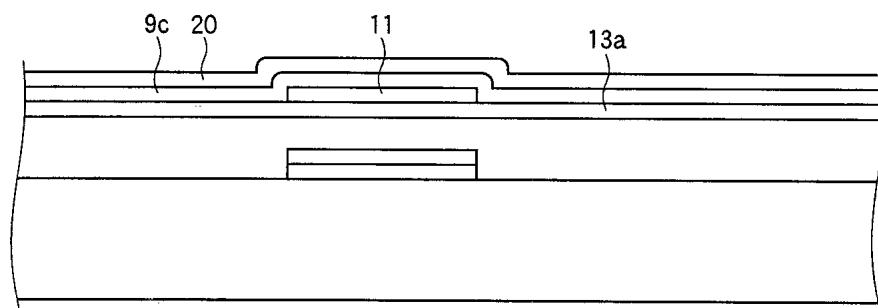
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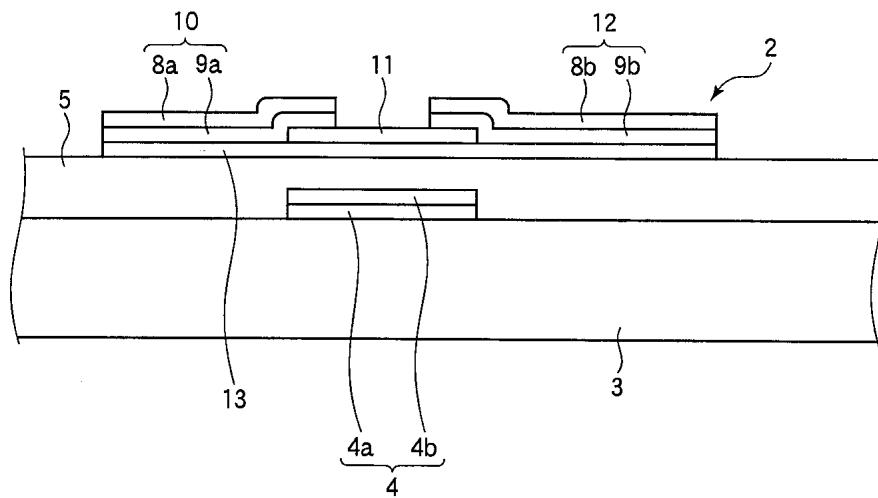
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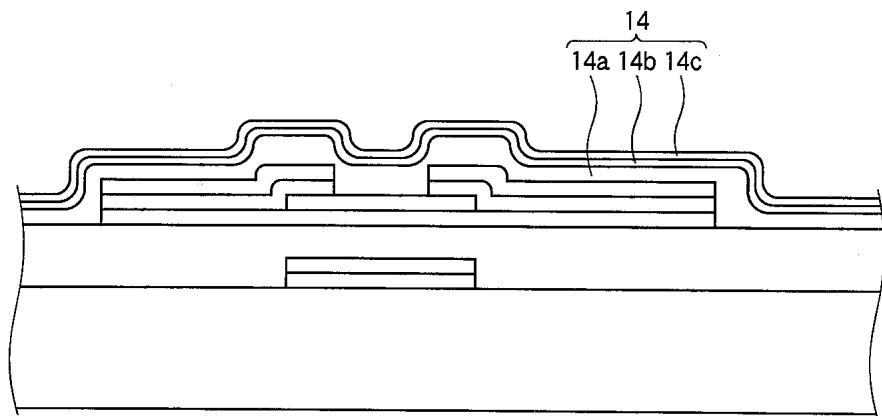
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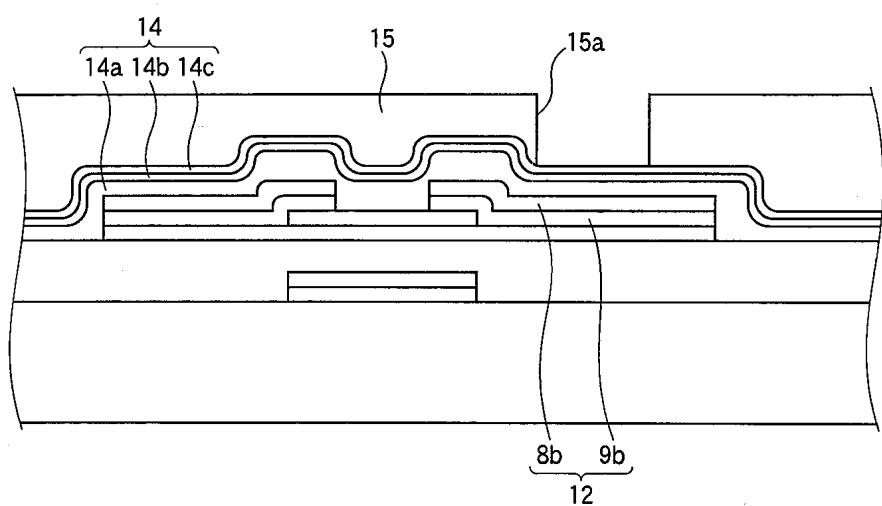
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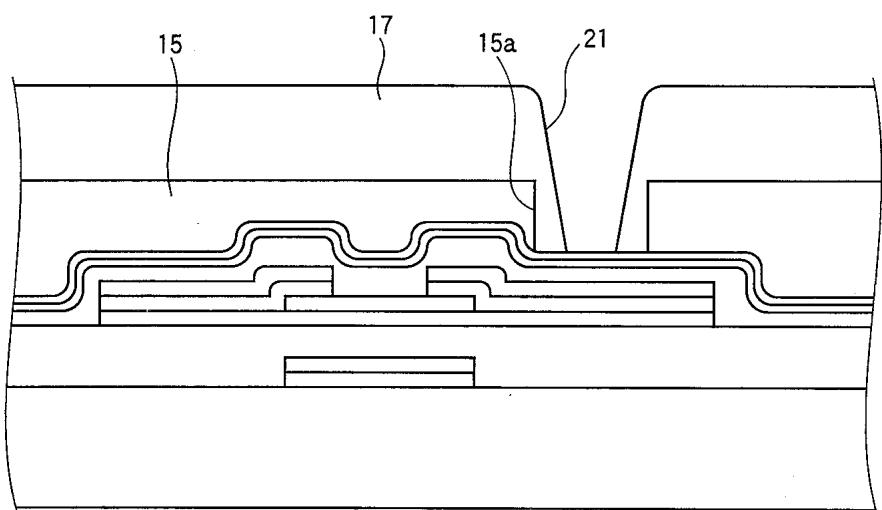
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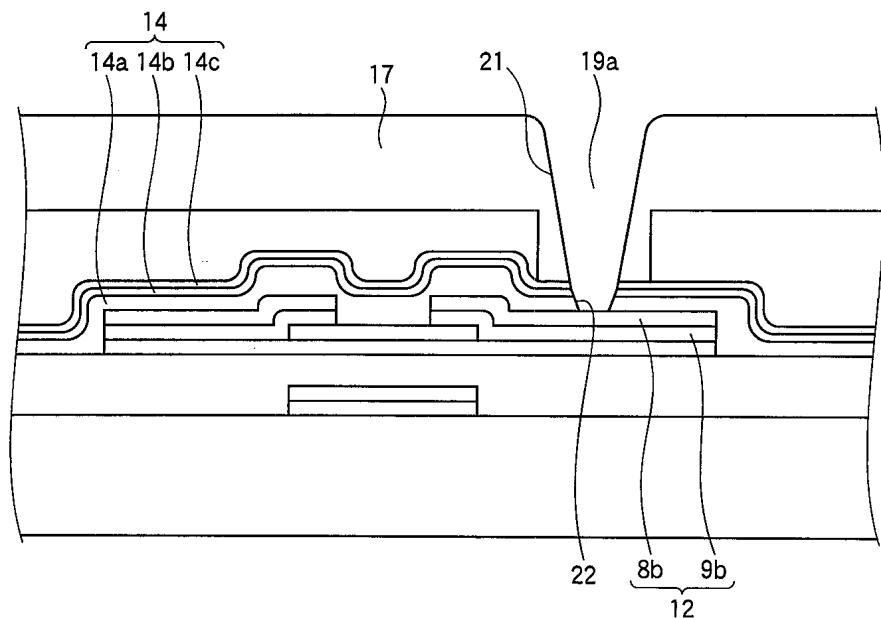
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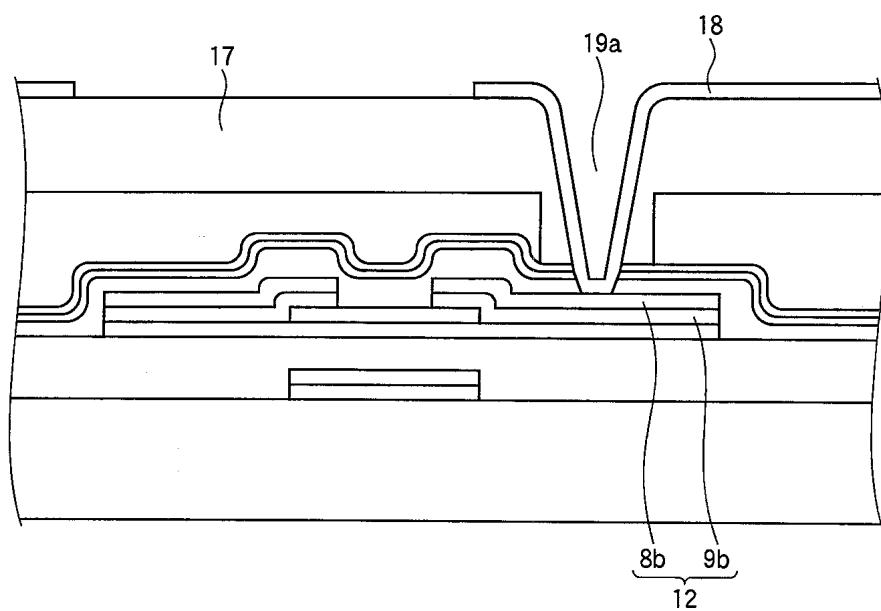
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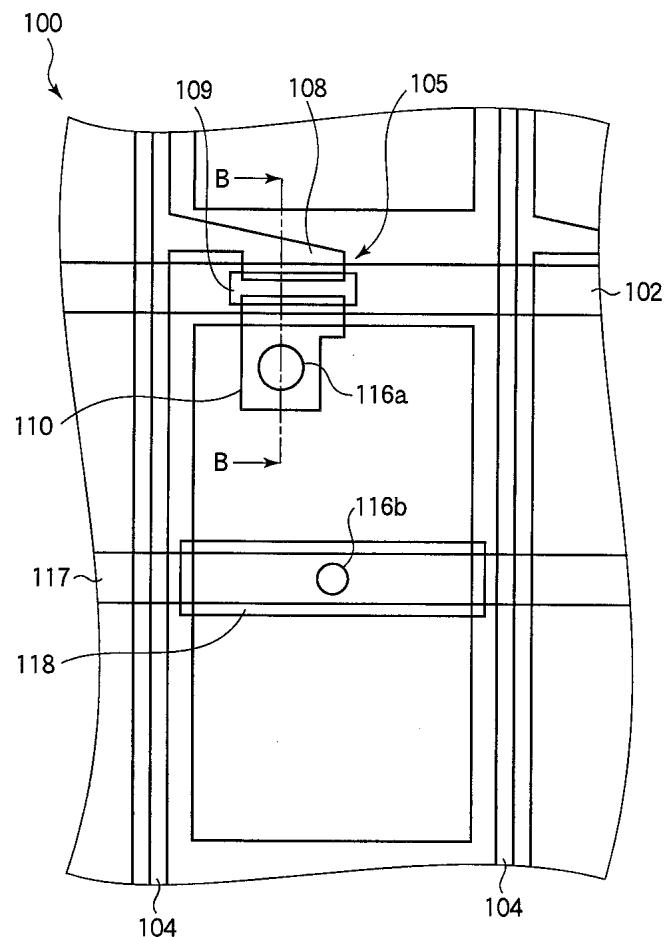
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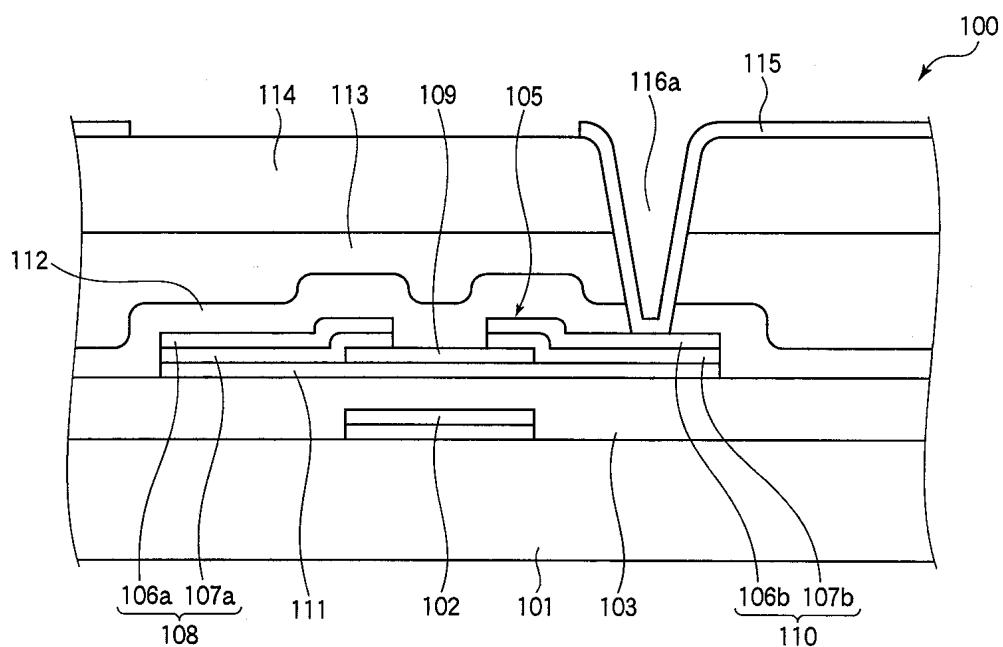
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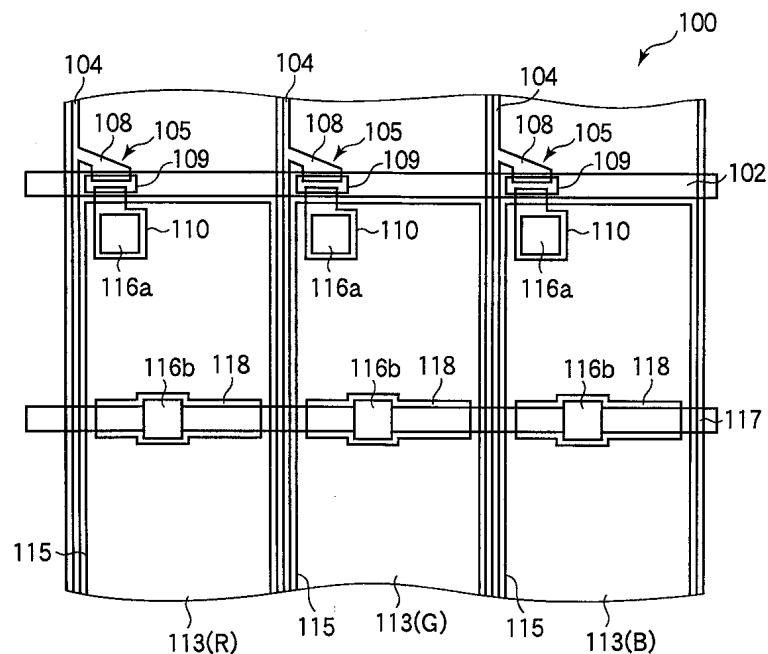
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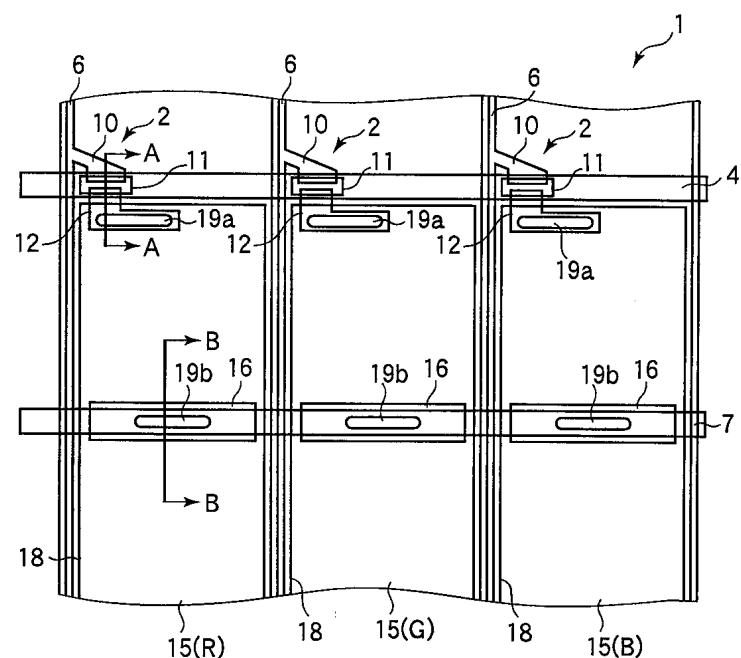
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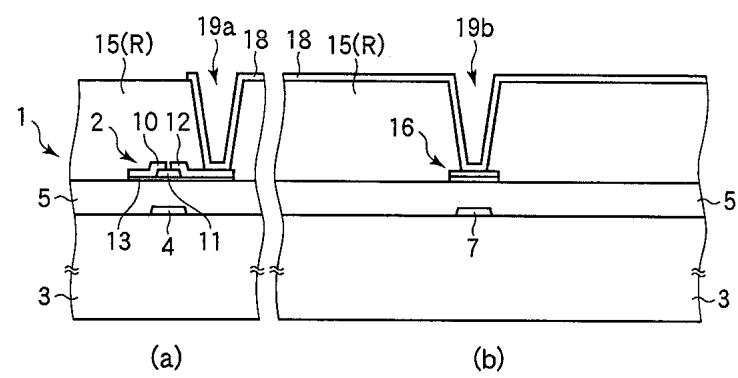
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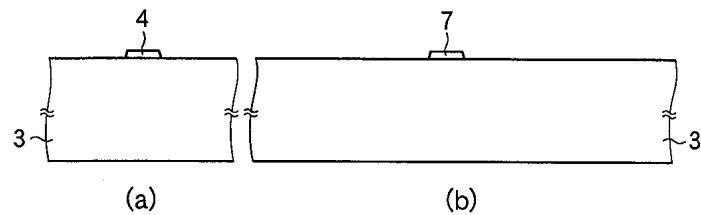
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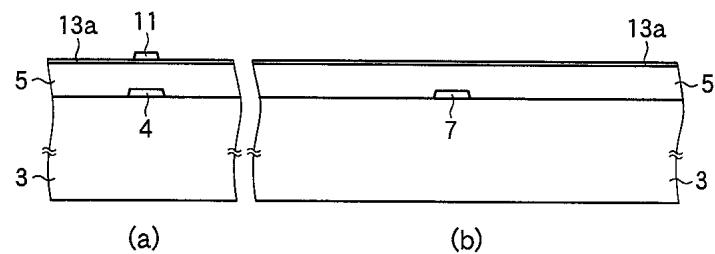
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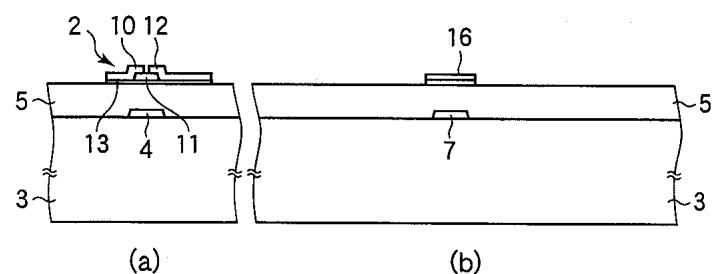
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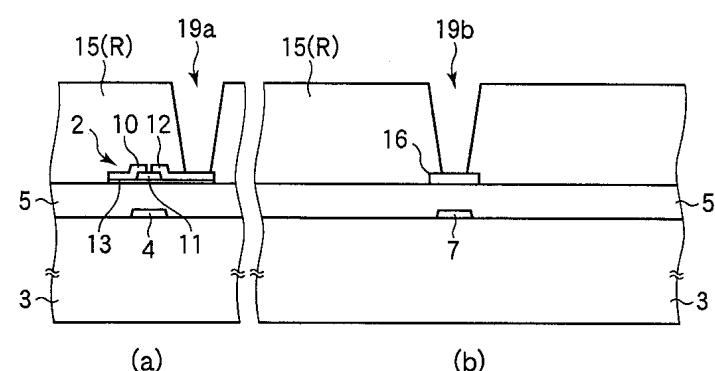
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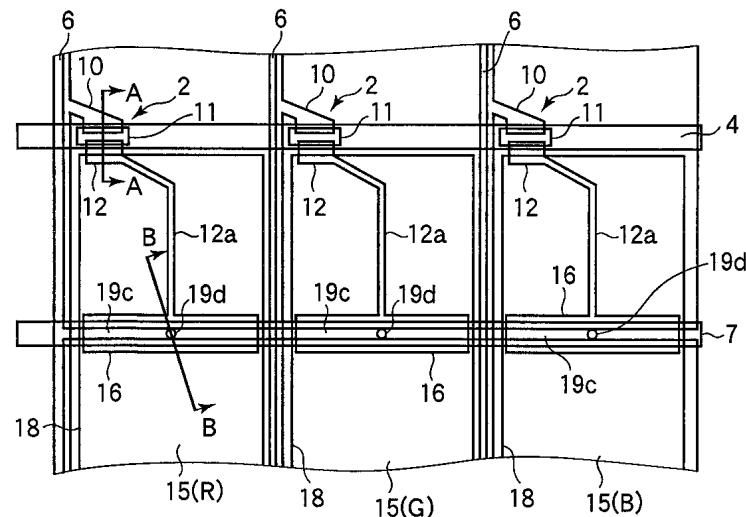
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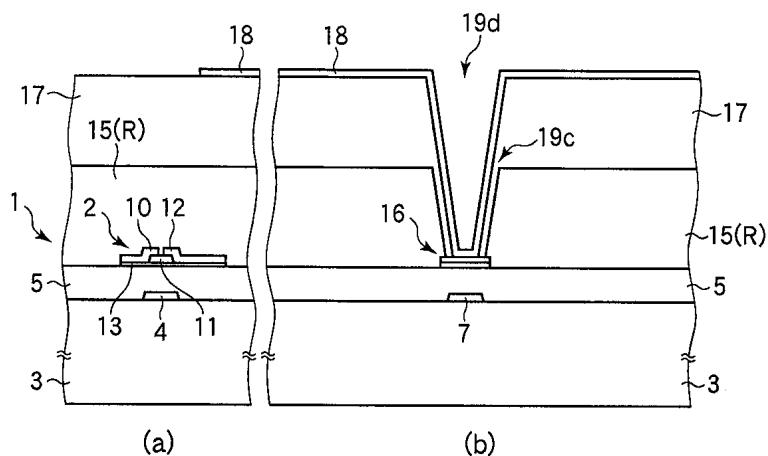
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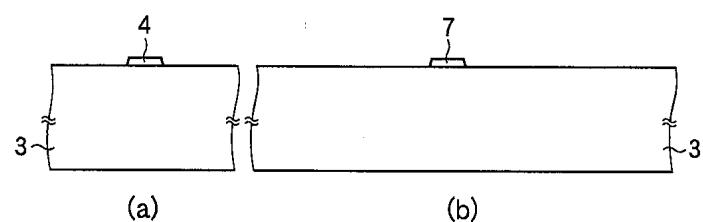
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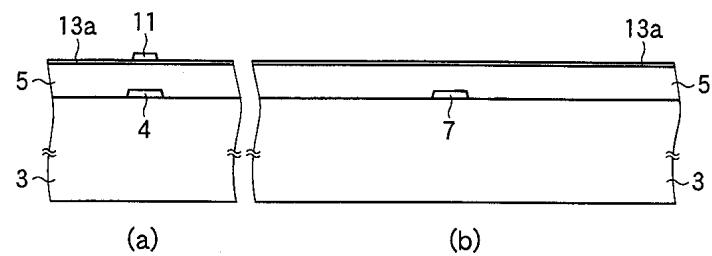
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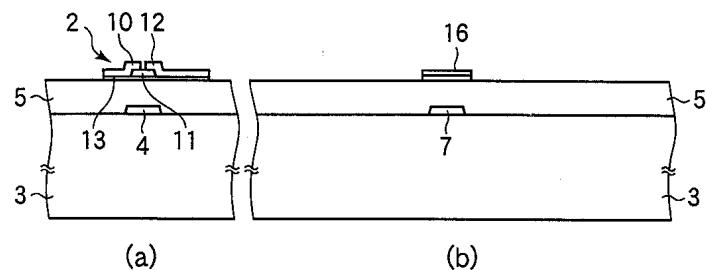
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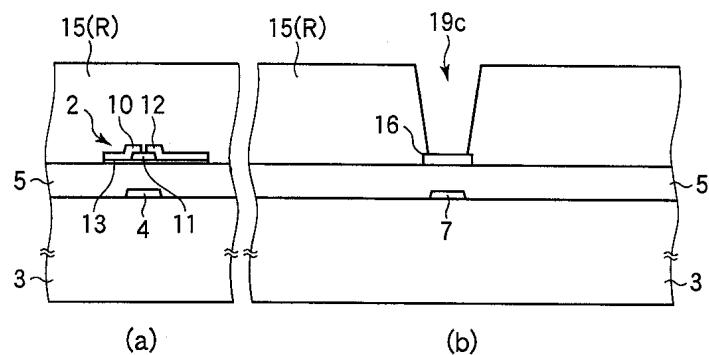
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(a)

(b)

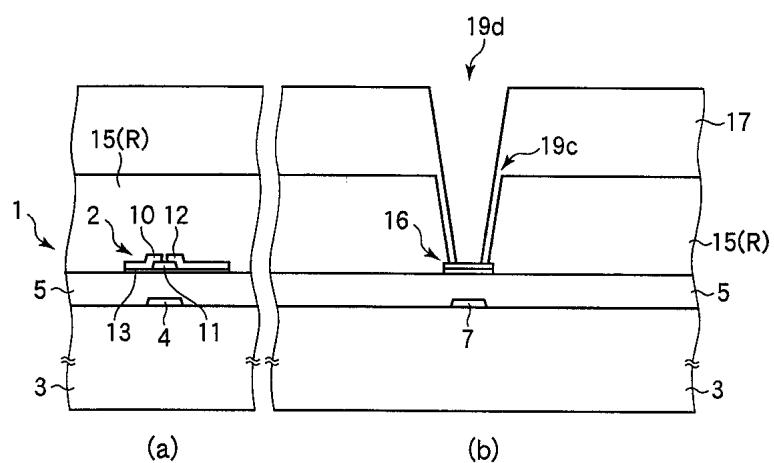
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(a)

(b)

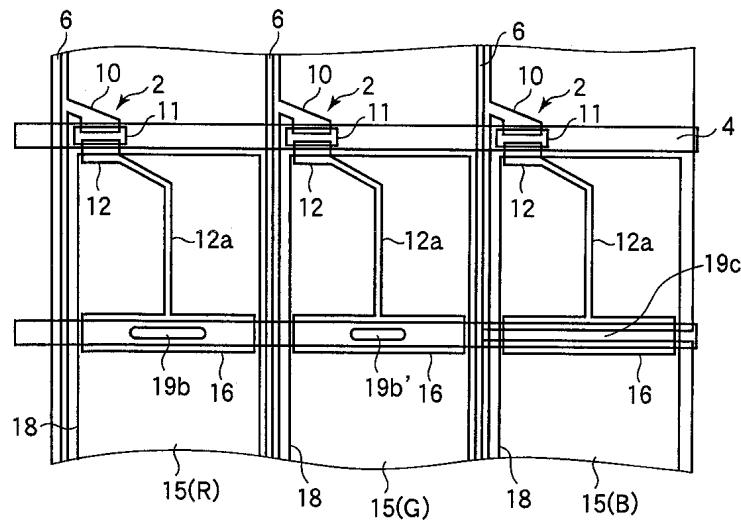
28



(a)

(b)

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专利名称(译)	用于液晶显示装置的基板和使用该基板的液晶显示装置		
公开(公告)号	KR1020040084720A	公开(公告)日	2004-10-06
申请号	KR1020040019633	申请日	2004-03-23
[标]申请(专利权)人(译)	夏普株式会社		
申请(专利权)人(译)	夏普株式会社		
[标]发明人	SAWASAKI MANABU 사와사끼마나부 TANOSE TOMONORI 다노세도모노리 MISAKI KATSUNORI 미사끼가쓰노리		
发明人	사와사끼마나부 다노세도모노리 미사끼가쓰노리		
IPC分类号	G02F1/136 G02F1/1335 G02F1/1362 G02F1/1368 H01L29/786		
CPC分类号	G02F1/136227 G02F2001/136222 F16K25/02 F16K31/0668 F16K47/023		
代理人(译)	Jangsugil Juseongmin		
优先权	2003090834 2003-03-28 JP 2003369354 2003-10-29 JP		
其他公开文献	KR100814183B1		
外部链接	Espacenet		

摘要(译)

因此，抑制了在阵列基板侧上具有CF的LCD基板上的CF残留或剥离，以防止导电失败。在形成于多个像素区域中的每一个中的像素电极与驱动像素电极的TFT 2之间形成的钝化膜14制成具有SiN层14a和14b以及SiO2层14c的层叠结构，并且其最上层被称为SiO层14c。树脂CF层15形成在具有这种层叠结构的钝化膜14上。树脂CF层15直接形成在SiO2层14c上，从而防止树脂CF层15的粘附性降低，并且当形成树脂CF层15时CF层15不容易剥离，在形成接触孔时不太可能产生CF残留物。结果，抑制了导通缺陷，实现了具有优异显示特性并且可靠性高的TFT基板1和LCD。1指指数方面 钝化膜，滤色器层，氮化硅层，TFT基板，液晶显示器

