

(19)  
(12)

(KR)  
(A)

(51) 。 Int. Cl. <sup>7</sup>  
G02F 1/136

(11)  
(43)

2002 - 0006748  
2002 01 26

(21) 10 - 2000 - 0040117  
(22) 2000 07 13

(71) .  
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(72) 401  
103 1108  
55 - 105 5/5  
642 - 3 LG Philips LCD  
642 - 3  
104 - 601  
642 - 3 LG Philips LCD

(74)  
:

(54)

, 4  
(even),



1

(6) ( , , ) (8) (7)  
 (5) , (P) (17)  
 (22) , (5) (22)  
 (T) (18)  
 (14)  
 (22) , (T)가 (matrix type)  
 가 (13) (15)  
 (P) (13) (15) (P)  
 (17) - - (indium - tin - oxide : ITO)

(17) (14) (T)  
 가 (14)  
 (13) (T) 1  
 (15) (T) 2

2 4

(22) (P) (thin film tr  
 ansistor) (T) (pixel electrode) (17) (storage capacitor) (C)

(T) (26) (28) (30) (active layer) (33)  
 (28) (15) (26) (15)  
 (P) (13)

(13) (15) (shorting bar : "  
 ")  
 (22) 가

(damage)

(13)가 (15)

4

(13)  
 (15)

(15) 1 (29)  
 2 (32)가

(43) , (19) 1, 2 (29,32)

, 2 (32) (43) 1, 2 (29, 32) (P) 1 (29)  
 , 1 (29) (43)

, 4 1 (29) 2 (32) ( )  
 , 가 1 (29)  
 (43) 1 (29)

3a 3d

3a 3d 2 - -

(Inverted Staggered) 가

가

(etch stopper : ES) , 가 (back channel etch : EB) 가

(22) , (adhesio

n) , (sputtering)

3a (26) ( )

, 1

( ) 2 ( )가

, 1 (29) 2

(32)

(26) RC (delay)

, (hillock) 가

, (26) 1, 2 (29, 32) (22)

(31) , (31) (a - S

i:H : 33') (n<sup>+</sup>a - Si:H : 35')

1 (28')

(35') (28') (33')

, 3b , 1 (28') (28)

(30)

, 1 2 1

1 (masking layer) (22)

(28) (30) (passivation layer)(37)

3c (37) (33') (15)  
(29) (2 P) (37) 2 ( ) (33') 1  
(29) 2 (32) (37) (33') (31)

(dry etching) (37)  
(28) (30) (15) (19)가

(28) (15)  
가

(29) 2 (32) (19) 1 (39) 1  
( ) 3 (41)

/ / ( )

(37) (33') (31)  
(31) (pin hole) (defect)가

3d 1, 2, 3 (39, 41) (22)  
(17) (30)

(19) 1 ( ) 1 (29)

2 (41) (39) 1 (29) 2 (32)  
(43)

(32) 가 ,  
A

가 ; 1  
 ; 가 가  
 ; 가 가  
 ; 2 ;  
 1, 2 ;  
 2 가 1  
 .

ITO, IZO

가 ; 1  
 ; 가 2  
 ; 2 ;  
 ; 2 ;  
 , 1, 2 1 2 ,  
 , 1 ;  
 , 1 2  
 1 2  
 1 2  
 1 2

ITO IZO

4 (122) . ( .)

(115) , (113) (115) (113)  
 (T) , (T) (126) (128) (130)  
 (113) (C) (130) (117) (P) ,  
 (115) (113) 1 (129) 2 (132)  
 , (115) 1 (129) 2 (130) (122)  
 , (113) (126)  
 (132) (115) 1, 2 (129, 132) (140, 141)  
 , 1 (129) , 2  
 (115) (143)  
 , (115) 2 (132) 2 (143)  
 1 (129) , (143)  
 1 (129) (131) , (133') (137)  
 (151) .  
 , (129)  
 5a 5d  
 5a 5d 4 - -  
 , 5a (122) (Al), (AlNd), (Cr), (Mo), (W)  
 115) , 1 (113) ( )가 ( 4  
 (126) , (122)  
 1 ( ) ,  
 2 ( )  
 , 2 1, 2 1 (129)  
 2 (132)  
 (126) (122) (131), (133'),  
 (135'), 2 (128')  
 , 2 (128') 가 (Mo)  
 5b 2 (128') , (128, 130)  
 2 (130) , (133') , 1 (129)  
 2

2  
 1 2  
 (SiN<sub>x</sub>) (SiO<sub>2</sub>) (135') (CH)  
 (acryl) (resin) (137) (be  
 5c (137) (133') (137)  
 (115) (128) (130) (155')  
 (115) (119) (137)  
 (119) (133') (139) ( )  
 1 (129) 2 (132) (137) (133')  
 (131) ( ) 1 ( ) 2 (141)  
 (115) 2 (130) ( )  
 1 (129) (133') (136) (137)  
 (151)  
 5d (122) - -  
 (indium - tin - oxide : ITO) (indium - zinc - oxide : IZO)  
 (130) ( 4 P) ( )  
 4 113) ( 4 C) (117)  
 ( ) 1 ( ) 1 ( 4  
 140) 1 (129) 1 ( )  
 2 ( 4 141) (119) 2 (130) 2  
 (143)  
 2 (130) 2 (143) (133')  
 (137') (151) 가 가

(57)

1.

;

;

;

, 가 가 ;

, 가 가 ;

1 2 ' ;

1, 2 ;

2 가 1

2.

1 ,

3.

1 ,

ITO, IZO

4.

1 ,

,

5.

;

1 , 가 , 1

2 , ;

가

2 ;

2 , ;

;

, 1, 2 1 2 , , 1  
2 , ;

6.

5 , 1 1 2 2  
1 ,

7.

5 , 1 2

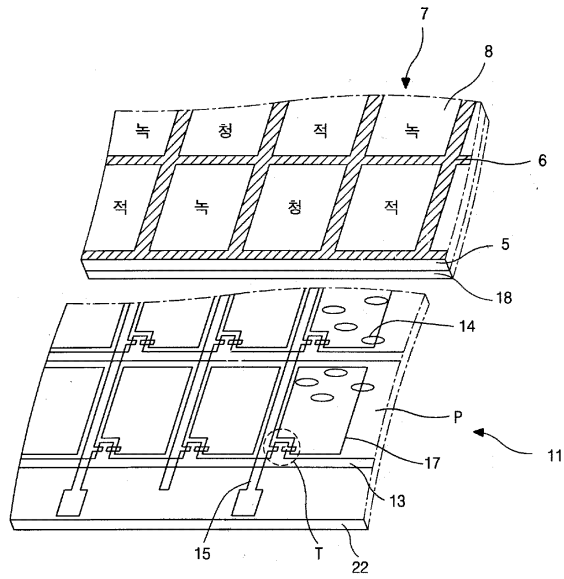
8.

5 , ITO IZO

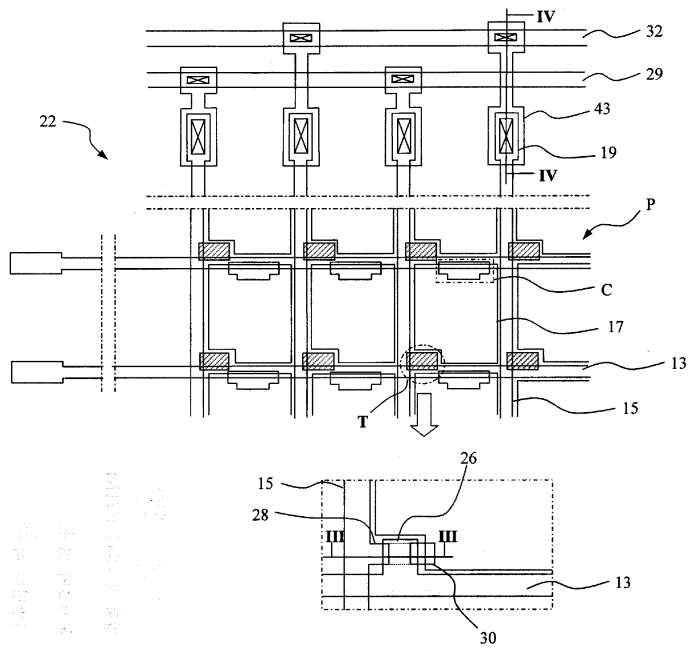
9.

5 , 1 2 .

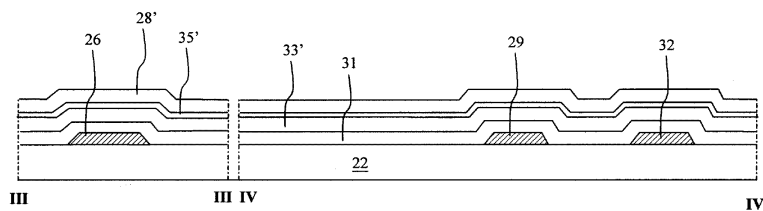
1



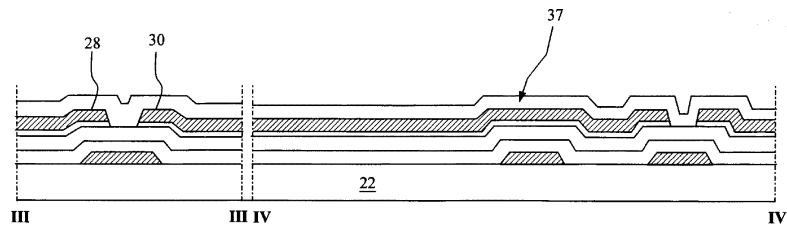
2



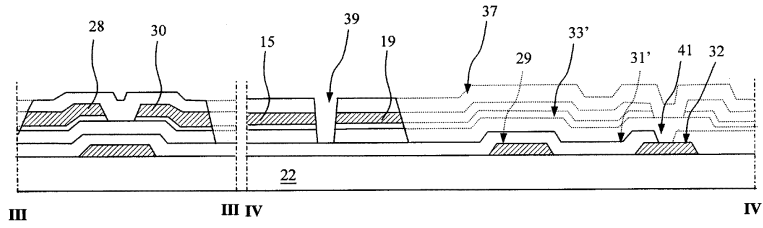
3a



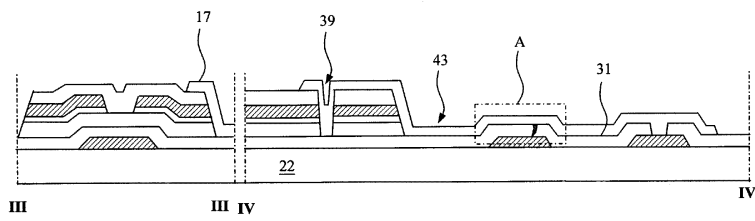
3b



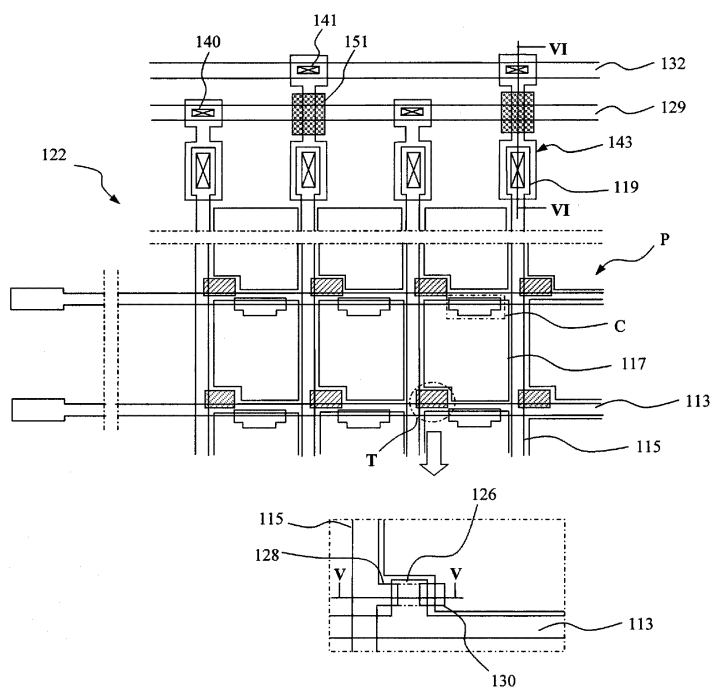
3c



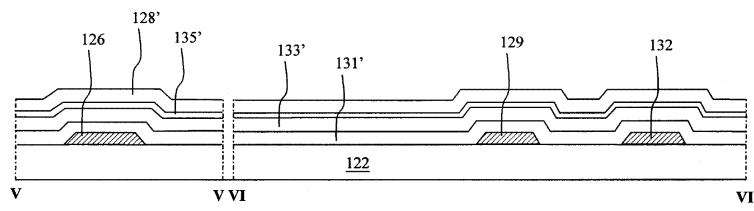
3d



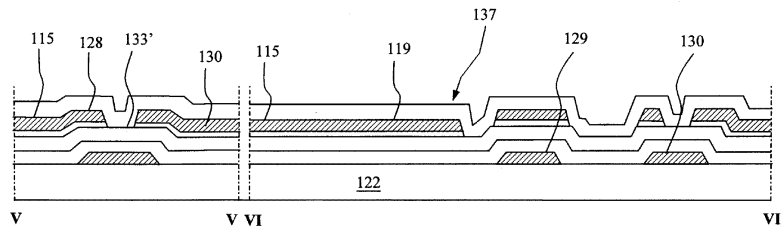
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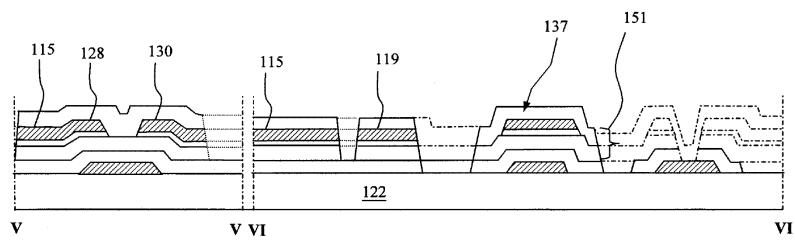
5a



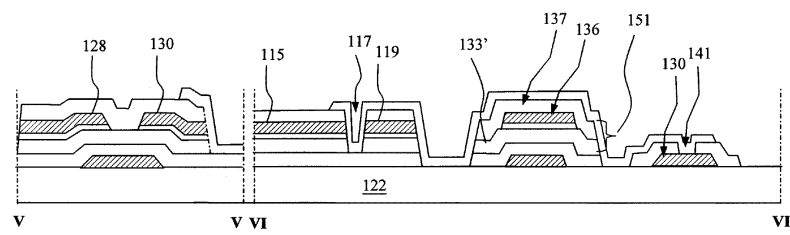
5b



5c



5d



专利名称(译)	用于液晶显示装置的阵列基板及其制造方法		
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申请(专利权)人(译)	LG显示器有限公司		
当前申请(专利权)人(译)	LG显示器有限公司		
[标]发明人	YOO SOON SUNG 류순성 KWAK DONG YEUNG 광동영 KIM HU SUNG 김후성 JUNG YU HO 정유호 KIM YONG WAN 김용완 PARK DUK JIN 박덕진 LEE WOO CHAE 이우채		
发明人	류순성 광동영 김후성 정유호 김용완 박덕진 이우채		
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其他公开文献	KR100679518B1		
外部链接	<a href="#">Espacenet</a>		

#### 摘要(译)

本发明涉及一种用于液晶显示器的阵列基板。并且特别地，保护层和有源层的层叠图案通过岛状类型留在短路棒上部的栅极绝缘层上，该短路棒上部由偶数（偶数）构成，其连接用于防静电到数据线。在该结构中，与栅电极形成在同一层中，以及在由4掩模工艺制成的阵列面板的奇数级锁定布线中靠近显示区域的方向。通过产生的缺陷，可以防止短路棒和透明电极与栅极绝缘膜表面中的短路棒接触相交的故障。因此，可以在阵列面板过程中防止静电的订阅故障。在制造完成后，由于在测试中经过了正确的测试，因此可以提高液晶显示器的制造成功率（产量）。

