

(19)
(12)

(KR)
(A)

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G02F 1/1335

(11)
(43)

10-2004-0007999
2004 01 28

(21) 10-2002-0041289
(22) 2002 07 15

(71) . 20

(72) 302

(74)
:

(54)

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

5e

1 .

2a 2g , 3a 3g

4 .

5a 5g , 6a 6g

100 : 110 :
 112 : 1 114 :
 116a : 116b :
 116 : 118a : 1
 118b : 2 118 :
 120a : 1 120b : 2
 120 : 122a : 1
 122b : 2 122 :
 124a : 1 124b : 2
 124 : 126a : 2a
 126b : 2b 126 : 2
 132 : 136 : P : T :

가

가가 가

가

(Thin Film Transistor ; TFT)가
(AM-LCD ; Active Matrix Liquid Crystal Display)가

가

1

(6) (2, 4) (2, 4)

(9) (4) (1) (8) (8) (8)
) (11) (9) (11) (11a), (11b)

(13, 15) (ch ; channel) (T) , (13, 15) (8), (11), (11a) (13, 15), (ch) , 1

2 (P) (8) 1 (13) , 1

(17) (T) (15) (17) 가 (19) (P) (21)

(23)가 (2) (1) (21) (T) (23) (27)가

(29) (23) (27) (6) 가

(31) (2, 4) (6) (2, 4) 가

(2, 4) (33)가 (31)

(2, 4) (6)

7%

가 가 (battery)

가 /

가 PDA(Personal Digital Assistant) 가

/

가

가 가 가

가

2a 2g , 3a 3g (active area) 2a 2g , 3a 3g

hing) (deposition), (coating), (photolithography), (etc

2a 3a (1) 1 1 (10) 1
 (12)

2b 3b (10) 1 (12) 1 (10)
 (14) (a-Si) (16a) (n+ a-Si) (16b)
 (16)

2c 3c 2 3 (16)
 (18, 22) (18) (20) 1
 (14) 2 (24)

(10), (16), (18, 22) (T)

2d, 3d (T) 2 (24) 1, 2, 3 (25, 26, 28)
 4 2 (24) 2 (24) 2, 3 (26, 28)

8) 2 (24) 1 (30)

2 (26) 2 (24)가 가 가

1 3

2e, 3e (T) 3 (28) 3 (32)
 5 3 (28) 2 (34) 가 (32)

4 2 (24)가 (32)

1, 3 (25, 28) (SiNx) 2 (26) BCB(benzocyclobutene)
 2 (26) (32)

3 (28) 2 (26) (25) (32) (T)

2f 3f (32) 4 (36) 6
 1 (30) (22) (38)

4 (36) 1, 3 (25, 28) (32) (
 (Galvanic)

2g 3g 7 (38)
 (P) (22) (40)

(P) (32)

7

가 가 / 가 가 가

(114, 120) (120)
 (123) 가 (124)
 (132) (122) (136)
 (124) (123) (1
 36)
 (118, 122) (120)
 (118, 122) (120)
 (124)
 (120) (124) (I) 5 μm ~ 7 μm (120) (1
 24) (short)
 (C_{ST}) (114) (113)
 (113) 가 (120)
 (121) (121) (125)
 가 (136)
 5a 5g , 6a 6g
 5a 5g , 6a 6g
 5a 6a , (100) 1 1 (110)
 1 (112)
 1
 5b 6b , 1 (110) 1 (112)
 (114) , 2 (116a) , (110)
 (116) (116b)
 (114) 1
 5c 6c , (116) 2 3
 (116) (118) (120) , (118)
 2 (122) , (P) (124) , 1 (112)
 (126)
 (110), (116), (118, 122) (T)
 2
 (Mo), (W), (Ni), (Ti)
 (118, 122) (120), (124), 2 (126) 1,
 (118a, 122a)(118b, 122b), 1, 2 (120a, 120b), 1, 2 (124a,
 124b), 2a, 2b (126a, 126b) , (124) 2 (120)
 (124b) , (118, 122) (120)

(124)

30) , 5d 6d (T) 2 (126) 1, 2 (128, 130) 1, 2 (128, 1
(132) 4 2 (126) 2 (134) (122)

1 (130) (128) 가 , BCB , 2

가 ,

5e 6e , (136) (P) 5 (132) (

(P) (136) (124) (T) (136) (124)

(57)

1.

1 , 가 ;

2 , 가 ;

;

가

가 , 가 ,

가 ,

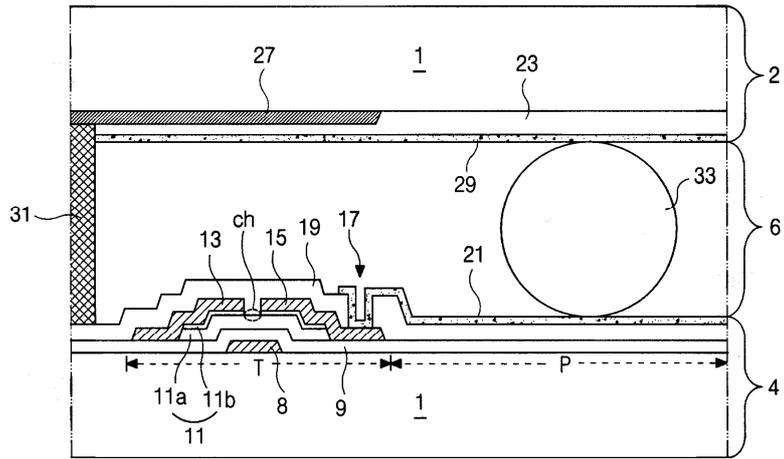
2.

1 , 가

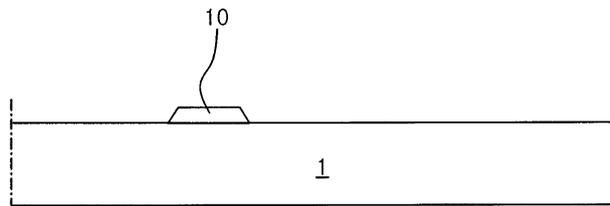
(AI)

- 2 3. ,
(AINd) .
- 1 4. ,
5 μm ~ 7 μm
- 1 5. ,
가 , 1 , 1 가
2 (C_{ST})
- 6. PR(photo resist)
1 ; 1 , 1
;
2 ;
가 , , 2
3 , , 가 ;
가 ; 4 ,
5 ,
- 6 7. ,
3 , 4 2 , 1 , 1 , 1
2 , 2 , 1 2

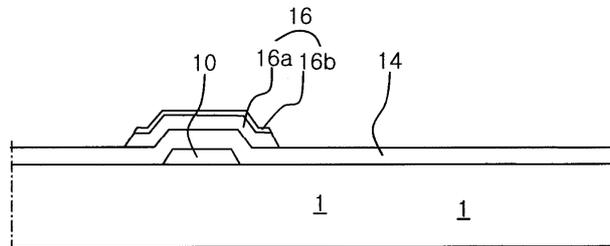
1



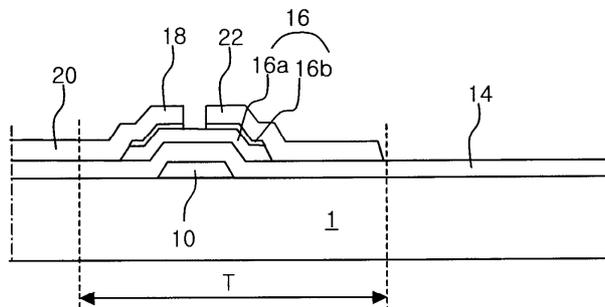
2a



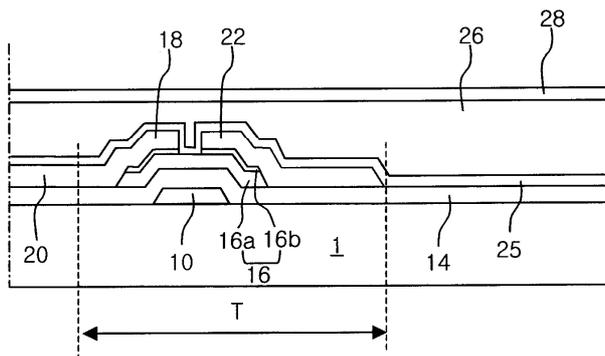
2b



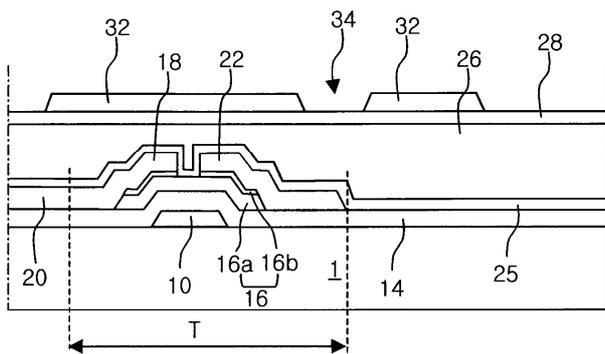
2c



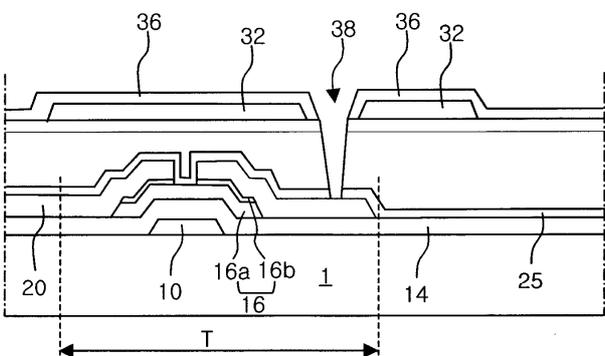
2d



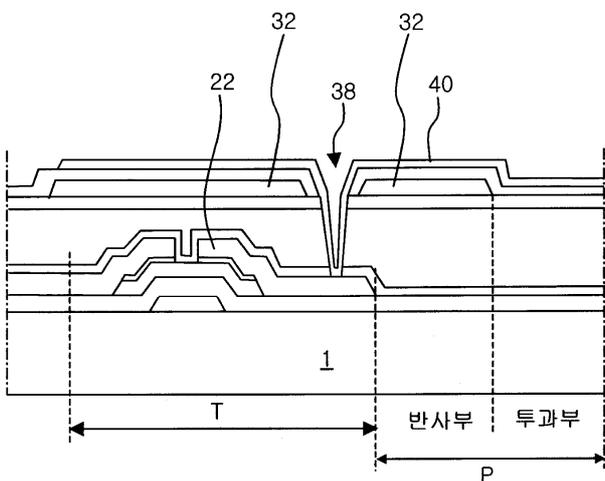
2e



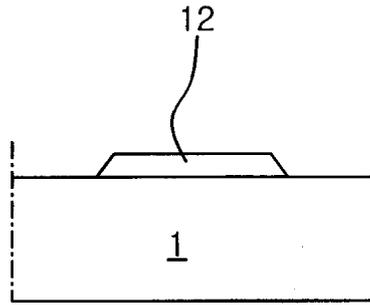
2f



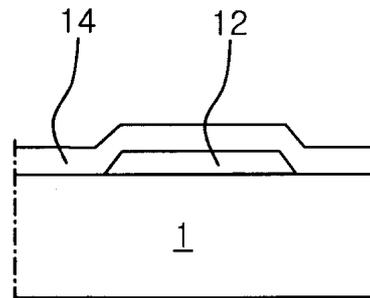
2g



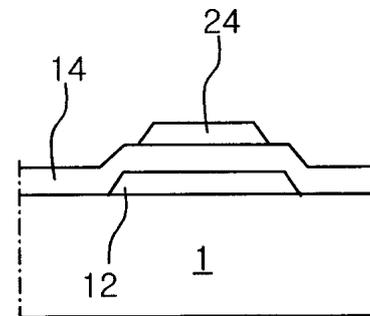
3a



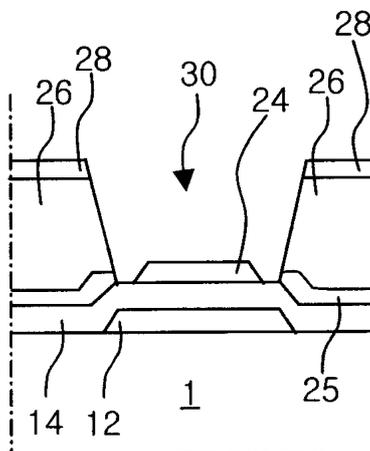
3b



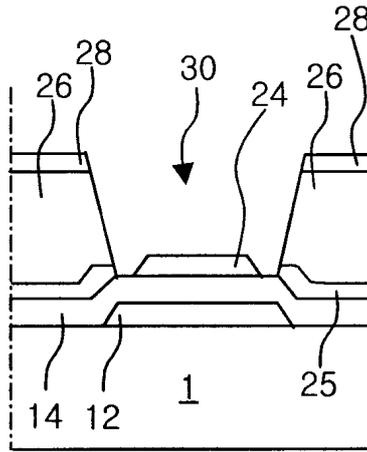
3c



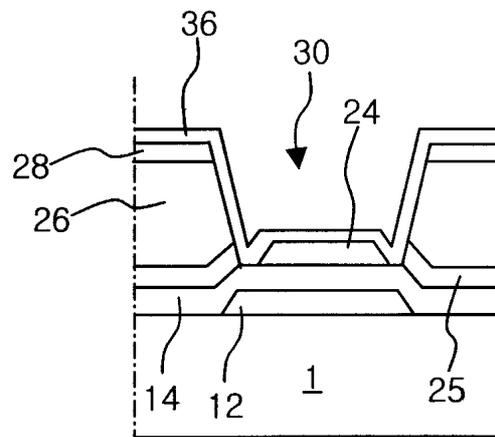
3d



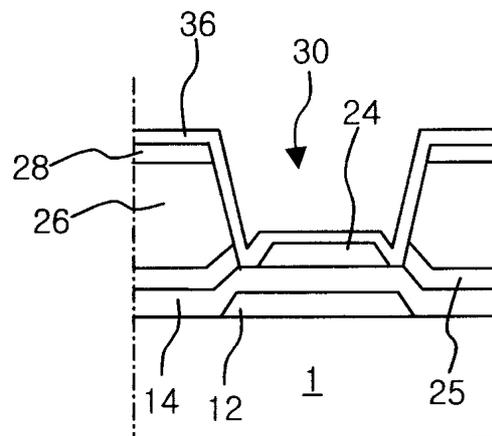
3e



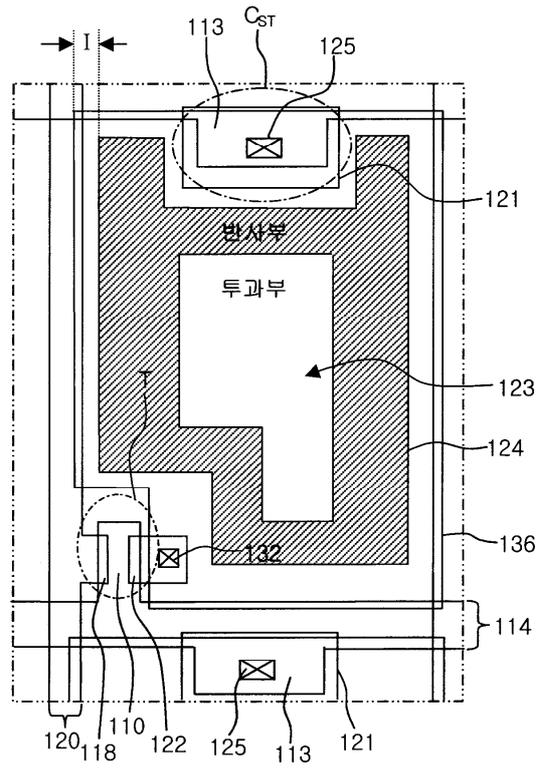
3f



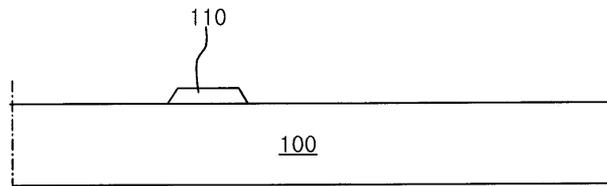
3g



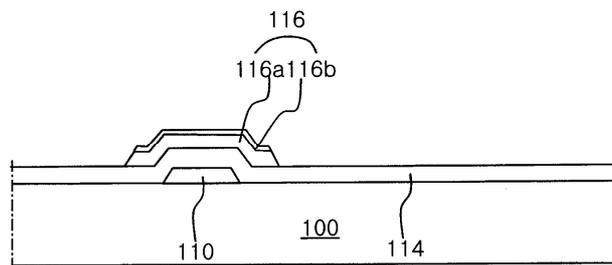
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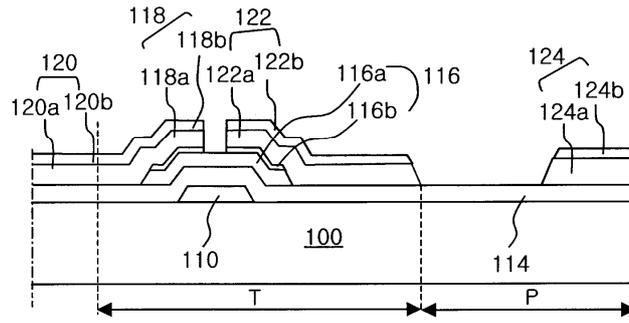
5a



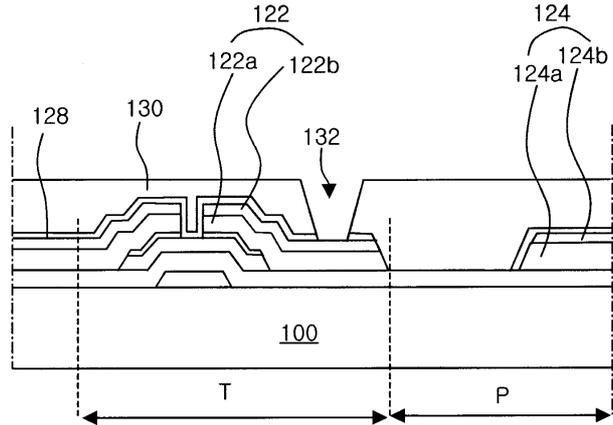
5b



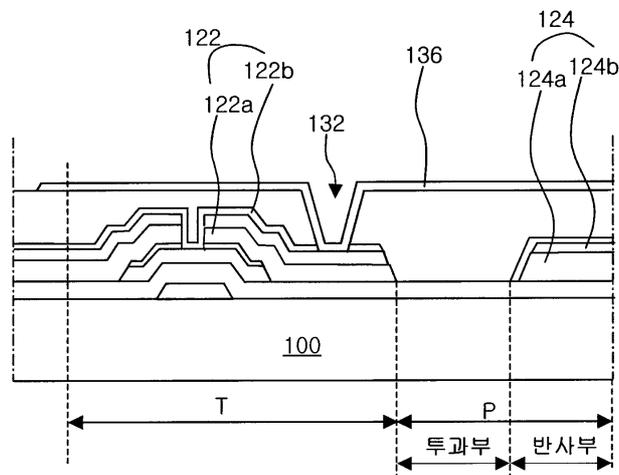
5c



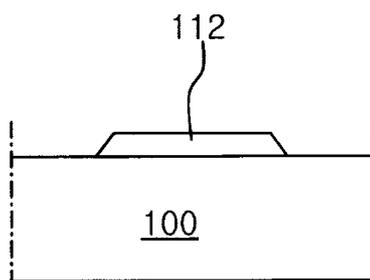
5d



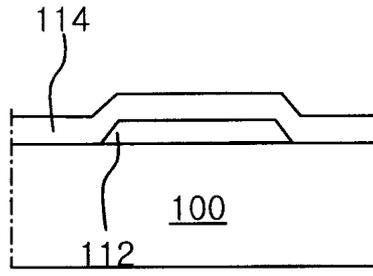
5e



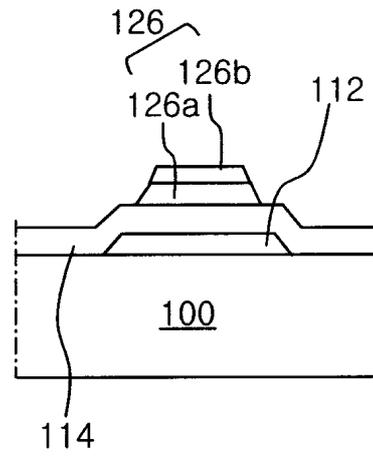
6a



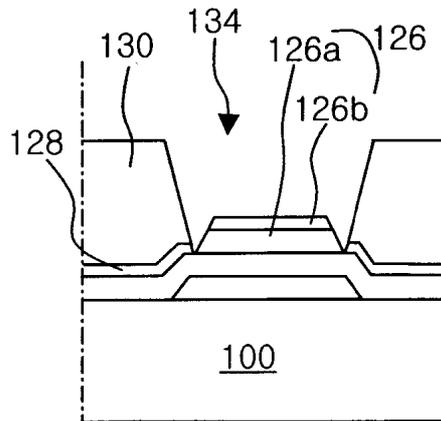
6b



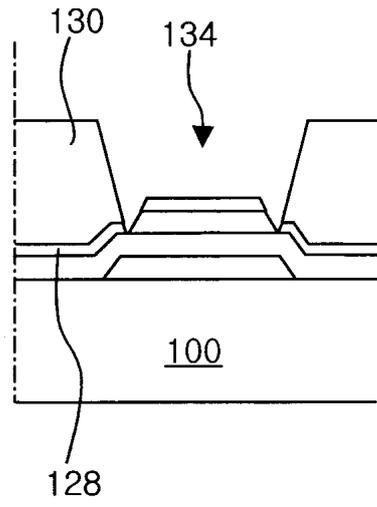
6c



6d



6e



专利名称(译)	透反液晶显示装置及其制造方法		
公开(公告)号	KR1020040007999A	公开(公告)日	2004-01-28
申请号	KR1020020041289	申请日	2002-07-15
[标]申请(专利权)人(译)	乐金显示有限公司		
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	KIM HONGJIN		
发明人	KIM,HONGJIN		
IPC分类号	G02F1/1362 H01L21/336 G02F1/1335 H01L29/786 G02F1/1368		
CPC分类号	G02F1/136227 G02F1/133555 G02F2001/13629		
其他公开文献	KR100467944B1		
外部链接	Espacenet		

摘要(译)

在本发明中，漏电极和数据线，以及包括反射层的金属材料，其具有与反射层对应的区域，其具有与透射部分对应的区域，透过像素电极通过透射孔到达反射层本体反射层具有包括形成的漏电极的透射孔，像素电极在限定为区域的像素区域中与漏电极连接并形成，并且在与待分离的数据线和漏电极相同的工艺中使用相同的材料在固定间隔中并且位于像素区域中并且部分地暴露像素电极包括在数据线中，并且具有源电极的源电极位于栅极布线中：并且朝向栅极布线交叉的第二方向具有优势关于金属材料，其至少是双层金属材料并且包括最上层的retu损耗可以提供具有提高的产量的产品，可以缩短掩模工艺计数，选择反射型LCD阵列基板提供良好的金属材料。关于在被定义为区域的像素区域中与漏电极连接并形成的像素电极，栅极和数据线交叉。

