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2002 12 09

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416

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11 1651-3 103

315-702

105 407 303

911 1502

(74)

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(54)

1 2 , 2 1 1 1 , 1
1 2 2 3 3 2 , 3 3 3
2 2 , 3 3 3 3 ,
3

2

,

1				.
2		1		.
3		1	1	.
4	3	A-A		.
5		1	LDD	1.
6	5	B-B		.
7		1		.
8	7	C-C		.
9		1	2	3.
10	9	D-D		.
11		1		.
12		2	1	.
13	12	F-F		.
14		3	1	.
15	14	G-G		.
16		3	1	.
17	14	H-H		.

(Thin Film Transistor, TFT)

[illegible]

, .

< 1 >

2 1 .

2 , (100) 1 (110), 2 (120) (130) .

1 (110) 1 (111), (112), 1 (113), 1 (114), 2 (115),
2 (116), 3 (117), (118) (119) .

1 (111) .

(112) 1 (111) . (112)

1 (112) 2 1 (112a,112b)
2 (112c,112d) .

(112a,112b) (112) 1 (L1)
(112c,112d) 2 (L2)
(112c,112d) 3 (L3)
(112e) .

1 (113) (112) 1 (111) . 1 (113) (112)
(112a,112b) (113a,113b) .

1 (114) 1 (113) , 1 (114) 1 (114a)
1 (114a) 1 (113) (112e) . , 1 (1
14a) 3 (L3) .

2 (115) 1 (114) 1 (111) , 2 (115)
(112a,112b) (115a,115b) .

2 (115) 2 (116) 3 (117) .

2 (116) 2 (116a) , 2 (116a) 115a
3 (117) 3 (117a) , 3 (117a) 115b

(118) 2 (115) , 3 (117) . , (118) 3
(117) (117) (Indium Tin Oxid

e, ITO)

, (119) 2 (116) . (119)

2 (116) (119) 3 (117) (118)
가 2 (116) 3 (117)

, 2 (120) 2 (121) (122) . 2
(121) (122) (123)가

(100) 1 (110) 2 (120) (130) .

, 1 .

3 1 1 4 3 A-

3 4 , 1 (111) (112f) (112f)

12) , 1 (111) (112) . (1

4 1 , 1 (111) (112) (112) 1 (11

1) 1 (113) .

5 1 LDD 1 6

5 5 B-B .

5 6 , 1 (113) .

1 1 (114) 1 (114a) .

1 (114) 1 , 1 (114a) 1 (114) 1

2 .

, 1 (114) K ()가 , .

(112) 112a, 112b . ,

(112) (112) (114a) 11

2c, 112d , (112) 1 (114a) (112c,112d) (11

2c,112d) , 1 (114a) .

(112a,112b) .

7 1 8

7 C-C .

7 8 , 1 (111) 1 (114) 1 (114a)

2 (115) .

2 (115) , 2 (115) (112a,112b)

(115a,115b) . (115a,115b) 1 (114a) 1 (114a)

. .

2 (115) (115a,115b) 2 (115) 1 (113)

(113a,113b) .

9 1 2 3 .

10 9 D-D .

9 10 , 2 (115) 2

(116) 3 (117) .

2 (116) 1 (114) 2 , 2 (116a) 2 (116)

1 (114) (112a) . 2 (116a) (115a,113a)

(112) .

3 (117) 2 (116) 2 (116a) 3 (117)

1 (114) (112b) , 3 (117) 3 (117a) (115b, 113b)

. .

11 1 .

11 2 , 2 (115)

, 2 (116), 2 (116a), 3 (117a) 3 (117)
 , 가
 117a) 3 (117)
 2 (116), 2 (116a), 3 (117a) 3 (117) , 가,
 가 가
 , 3 (117a) 3 (117) 2 (116), 2 (116a)
 2 (116), 2 (116a) (119)' , 3 (117a) 3
 (117) (118)
 2 (120) 2 (121)
 (122)
 1 (110) 2 (120) , 1 (110) 2 (120) (130)
 (100) 1 (110) 3 (117) (118)
 < 2 >
 2 3 가
 12 2 1 13 12 F-F
 2 (115) 1 (110) 1 (111) (112), 1 (113), 1 (114), 2
 2 11 < 1 >
 12 13 , 2 (115)
 115a (112a) 2 (116c)가
 115b (112b) (118a)
 , 2 (116c) (118a) 1 (111)
 (116d) 2 (116c) 2 (116c) 2
 ,
 , 2 (120) 2 (121) (122) 2
 (121) (122) (123)가
 (100) 1 (110) 2 (120) (130)
 , (100) 1
 < 3 >
 3 3 가

14 3 1 15 14 G-G

3 1 (110) 1 (111) (112), 1 (113), 1 (114), 2
(116) 1

14 15 , (115a,115b) 2 (115) (115a,115b)
(118c)

, (118c) 2 (115),

, (118c)

16 3 1 17 14 H-H

2 (116a) 2 (116) 3 (117a) 3 (117)

2 (116a) 2 (116) 115a
(112a) , 3 (117a) 115b (112b)
, 3 (117) (118c)

2 (120) 2 (121) (122) 2 (121)
) (122) (123)가

(100) 1 (110) 2 (120) (130)

(57)

1.

(a) 1 , (b) 1 , (c)
1 2 , (d) 2 2 3 , 2
, (f) 3 , (e) 1 2 , (g) 2 3

1 ;

1 2 , 2

2 ;

1 2

2.

1, 1, 2 3
(Indium Tin Oxide)

3.
1, 1 2 3,

4.
(a) 1, 1, 2 2 1
1 2, 3 3 ;

(b) 3 1 2 1
2 ;
1 2 2 ;
1 2 .

5.
4, 1 2 3 ;
2, 3 3
2 .

6.
4, 1 1 .

7.
(a) 1, (b) 1 1, (c) 2, (e) 2 2
, (e) 1 2, (d) 2, (e) 1 ;
1 2 ; 2 2
1 2 .

8.
7, 1 2, 2 (Indium Tin Oxide) 1
2 .

9.
7, 1 2 ,

10.
1, 2 1
1, 2 2

2 2 1
;
1 2 2

1 2 .

11.

10 , 2

2 1
;

2

12.

10 , 1 2 1
1

13.

(a) 1 , (b) 1 1 , (c) 2 가
, (e) 2 , (f) 3 2 2 , (g)
1 ; 3

1 2 , 2
2 ;

1 2 .

14.

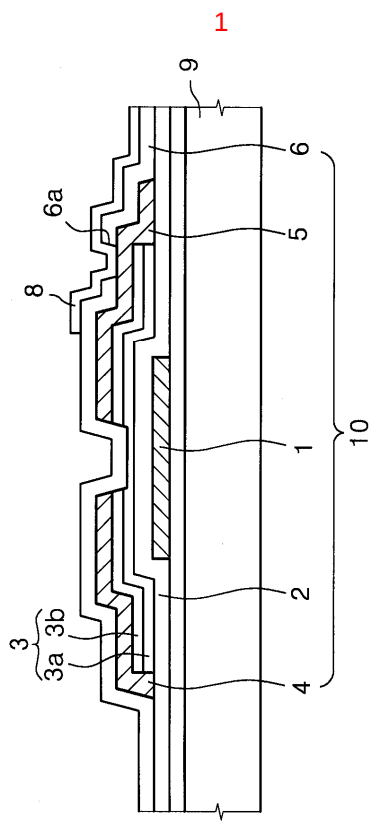
13 , 2 3 , 2 3
(Indium Tin Oxide)

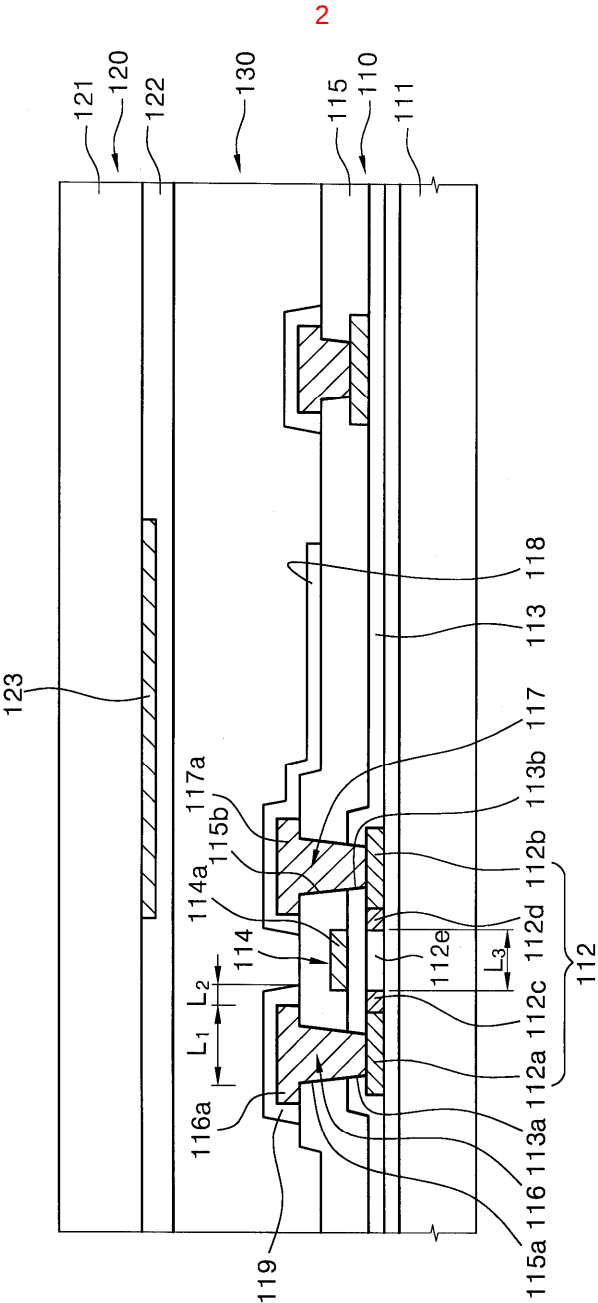
15.

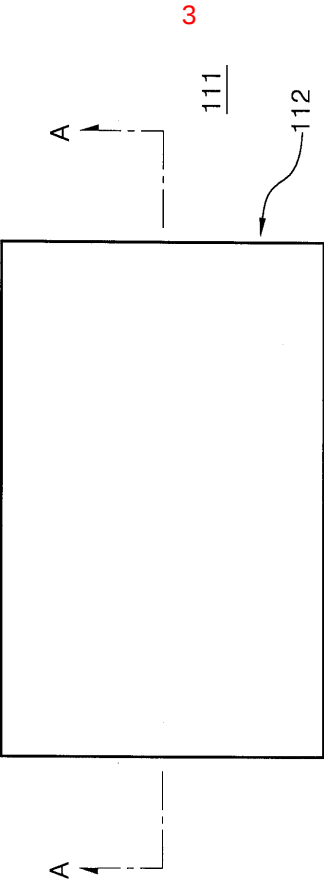
1 , 1 가 1
1 , 1 2 2
2 3 1 3 ;

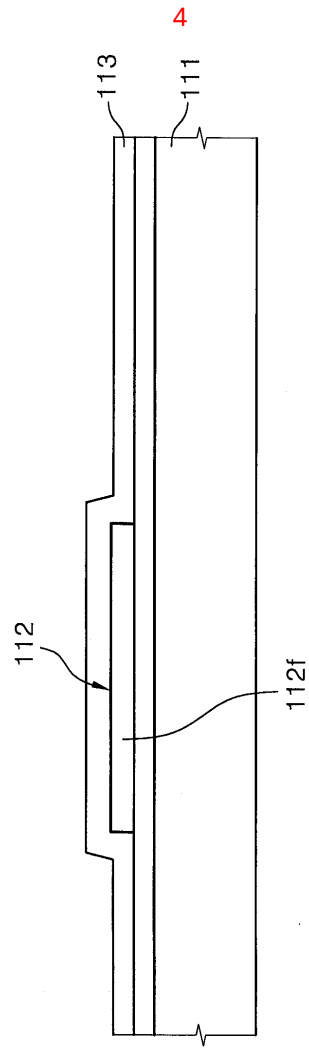
1 2
2 ;

1 2 .

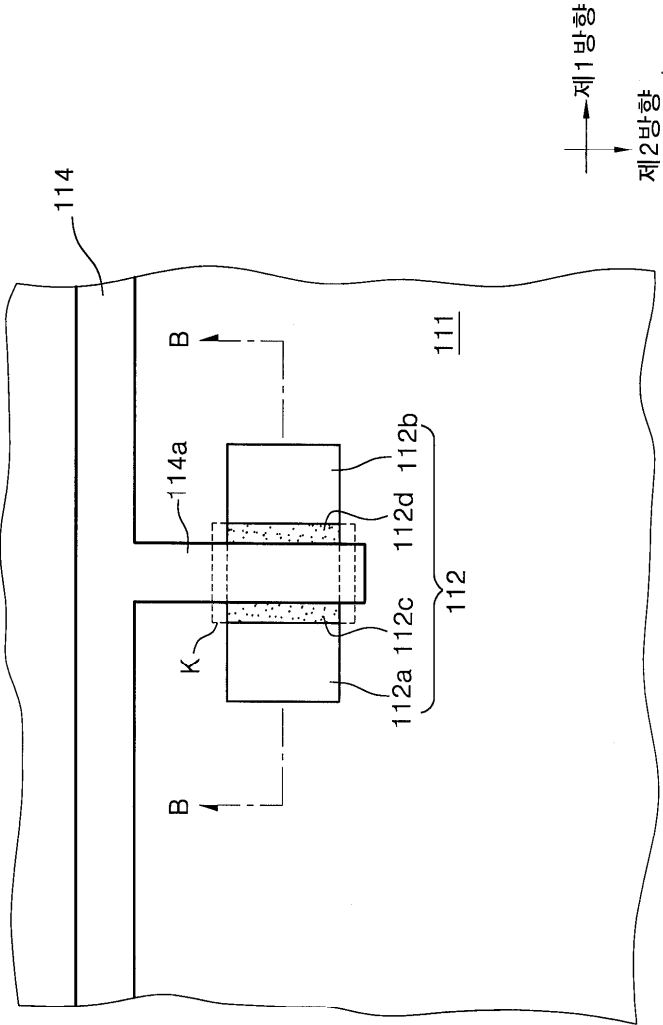


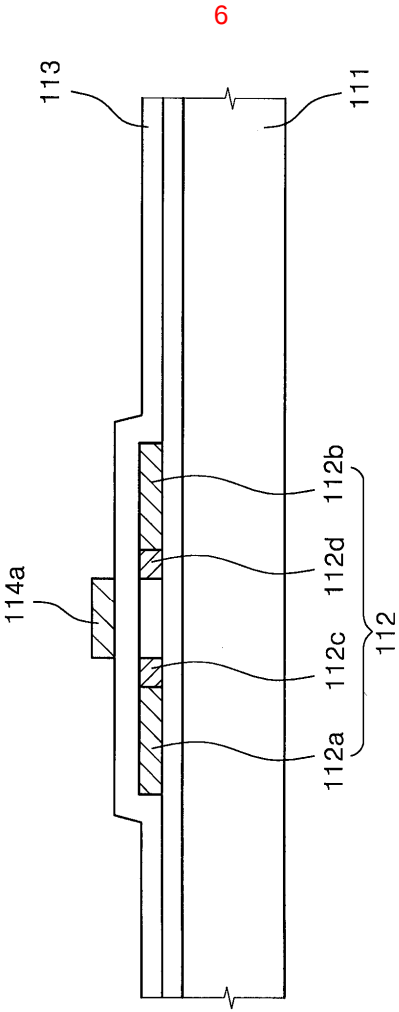




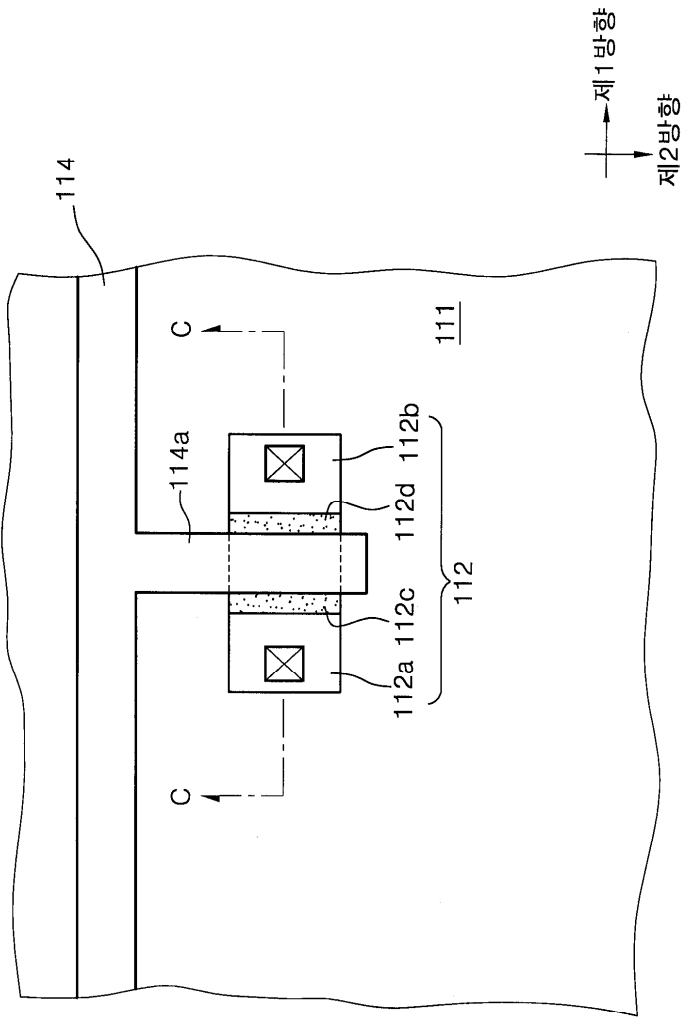


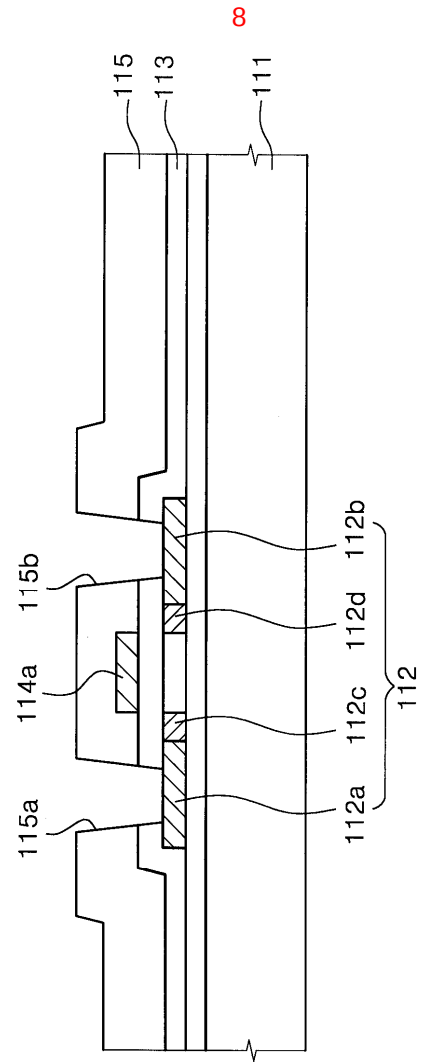
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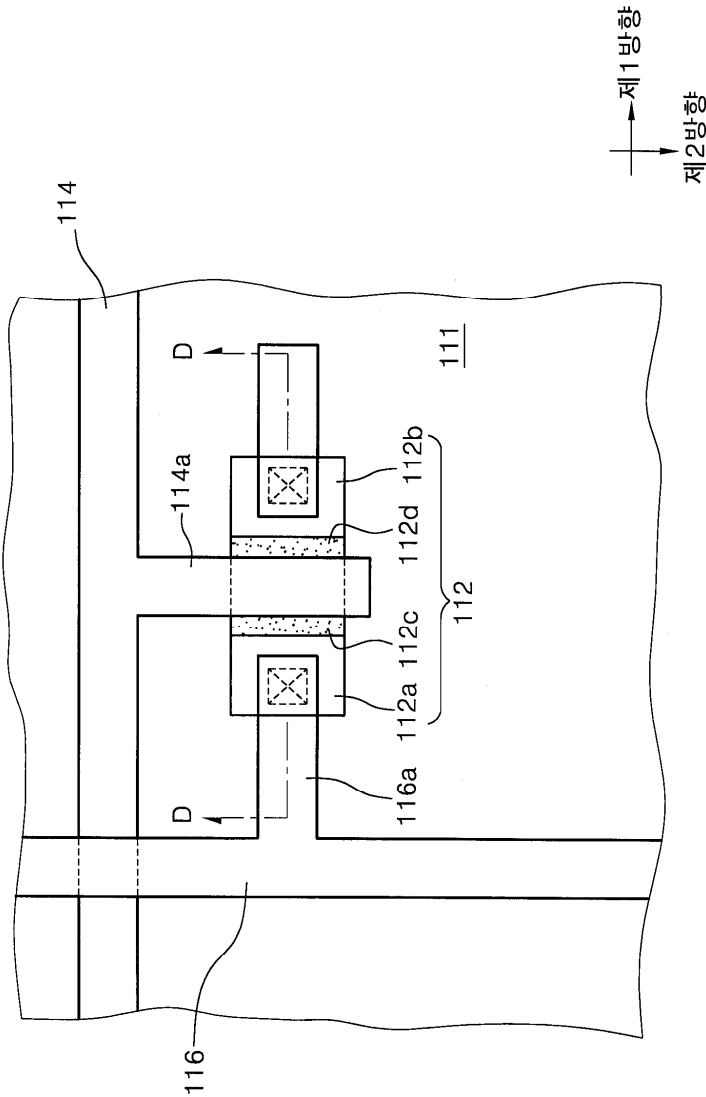


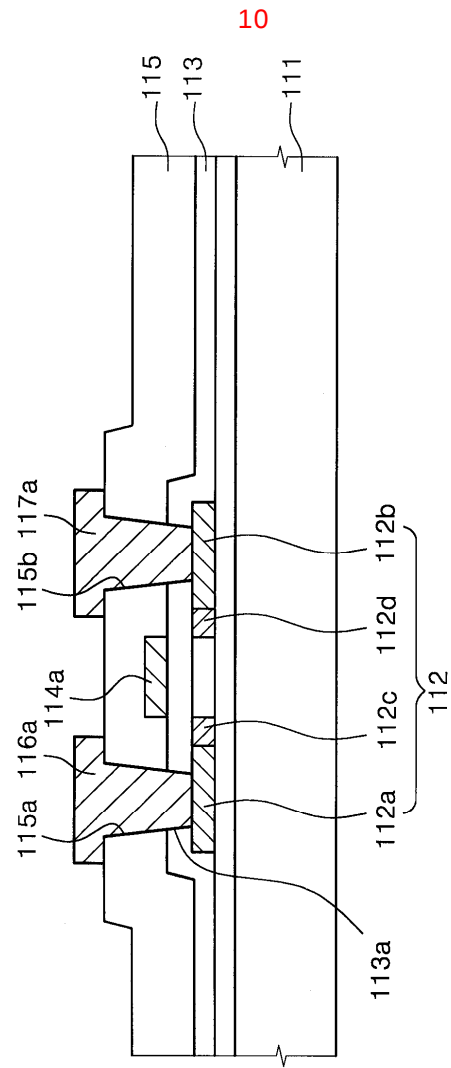


7

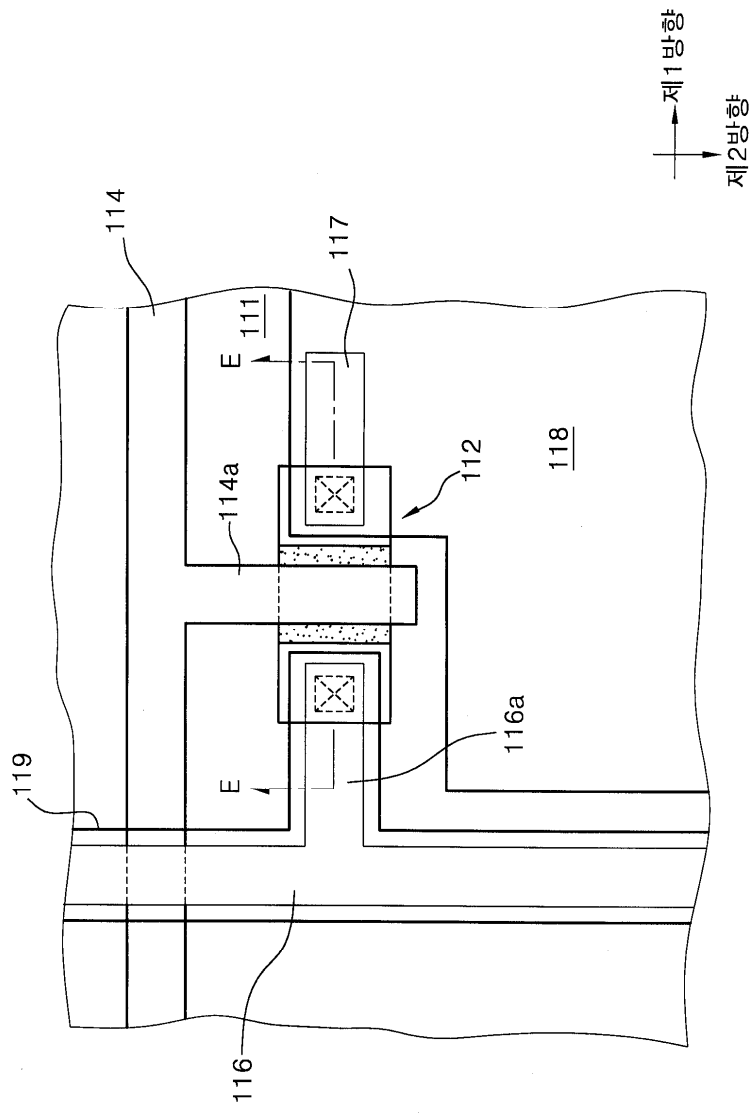




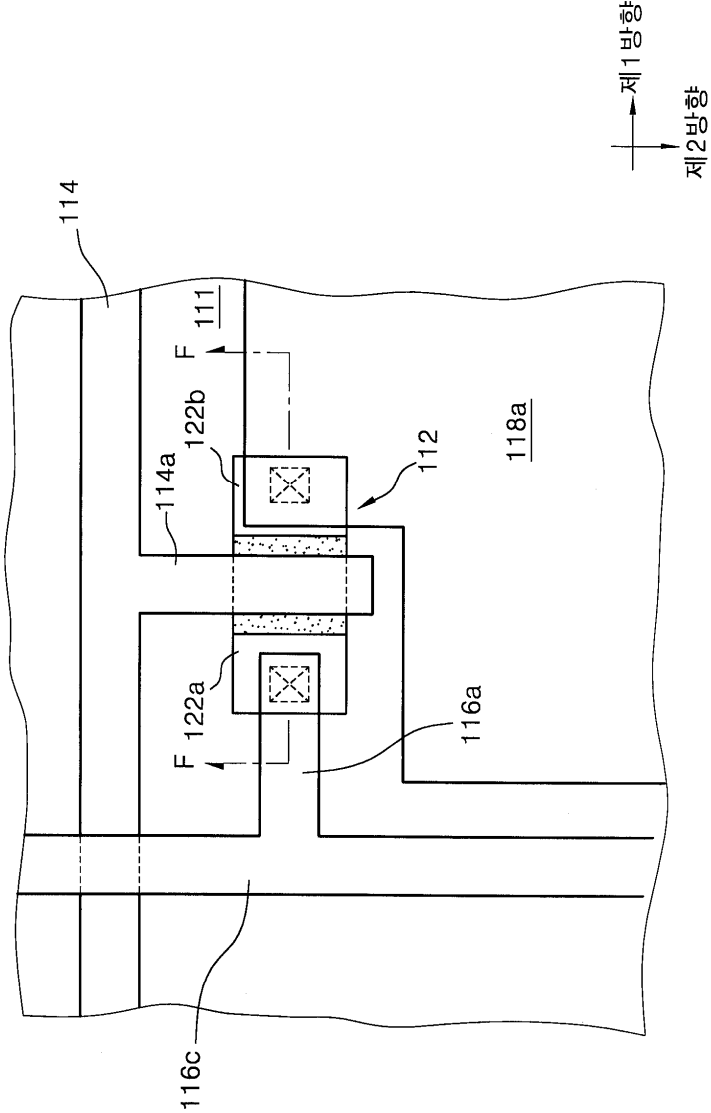


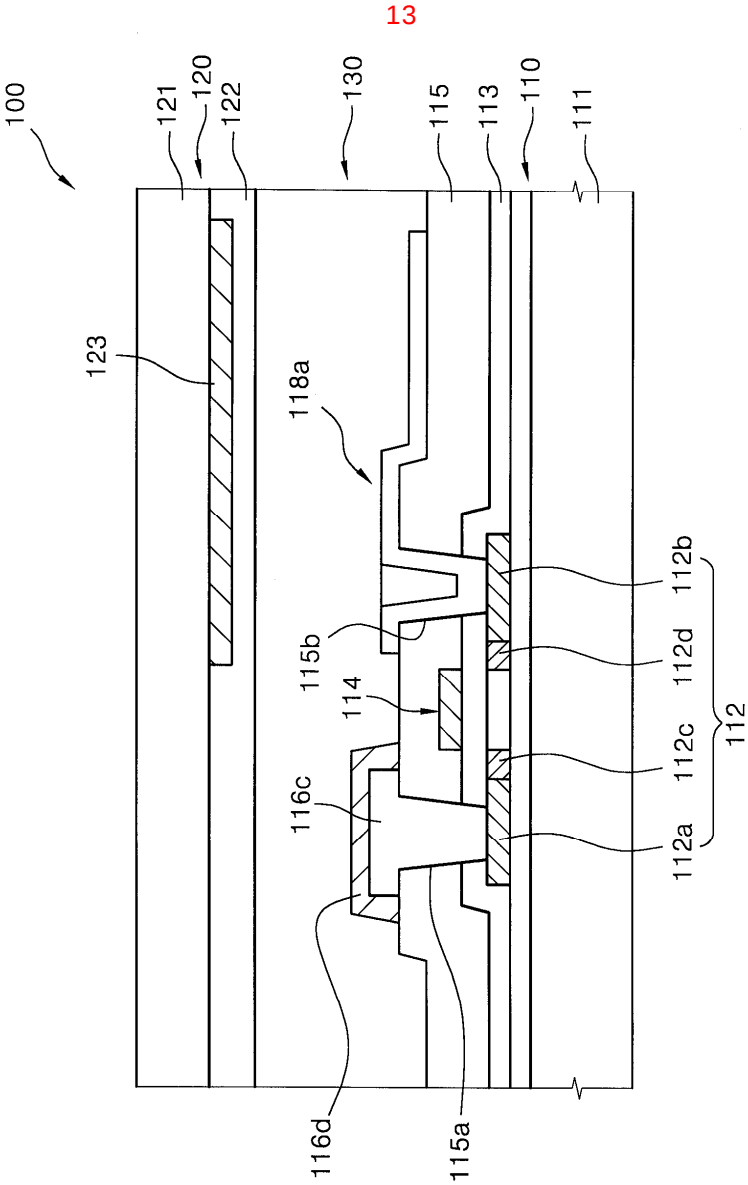


11

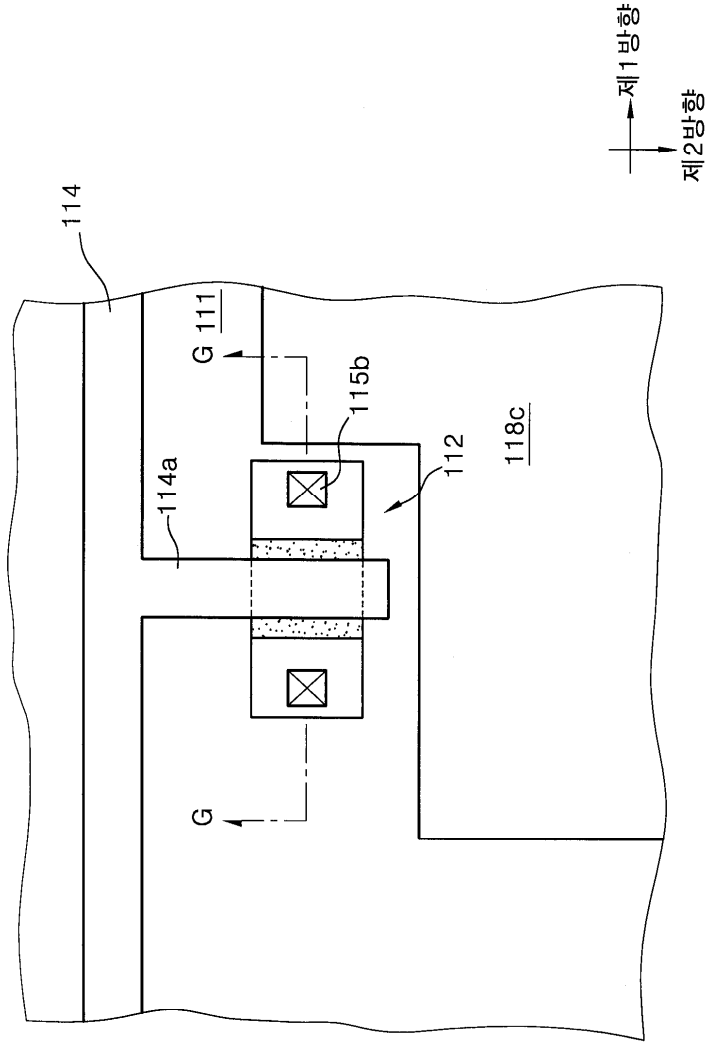


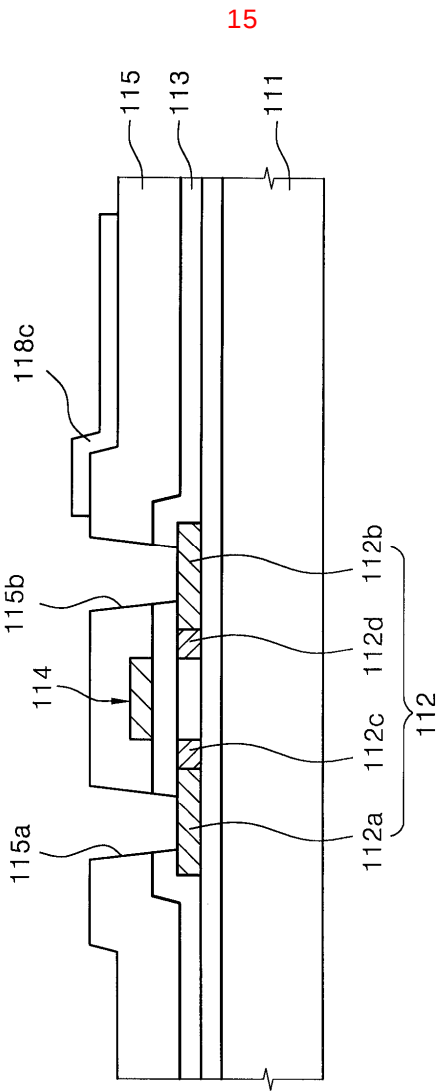
12



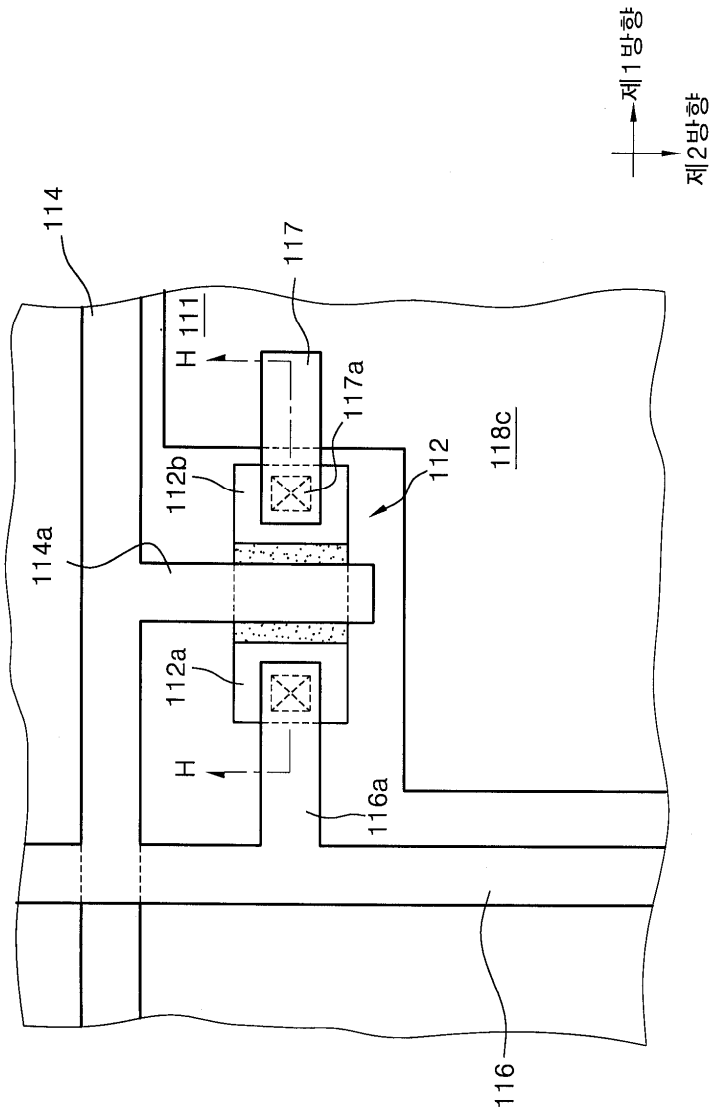


14

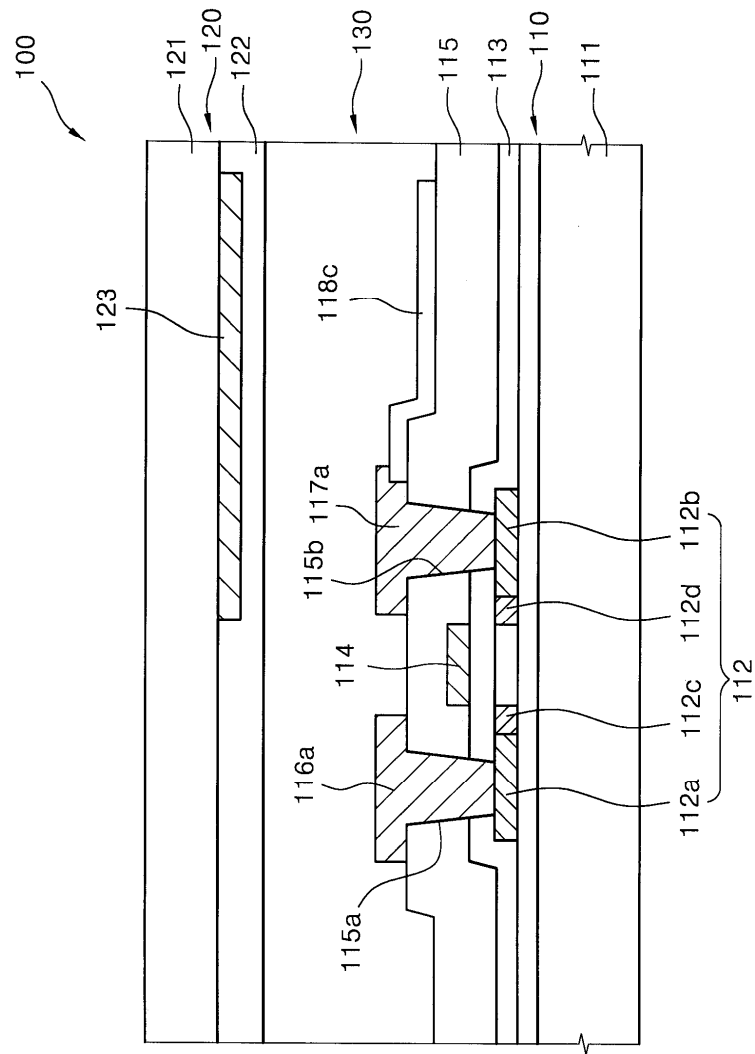




16



17



专利名称(译)	液晶显示装置及其制造方法		
公开(公告)号	KR1020040050243A	公开(公告)日	2004-06-16
申请号	KR1020020078015	申请日	2002-12-09
[标]申请(专利权)人(译)	三星电子株式会社		
申请(专利权)人(译)	三星电子有限公司		
当前申请(专利权)人(译)	三星电子有限公司		
[标]发明人	CHOI PILMO 최필모 YI CHUNG 이청 KIM DEOKHOI 김덕희 JUNG KWANWOOK 정관욱		
发明人	최필모 이청 김덕희 정관욱		
IPC分类号	G02F1/136		
代理人(译)	PARK , YOUNG WOO		
其他公开文献	KR100926309B1		
外部链接	Espacenet		

摘要(译)

公开了一种减少制造工艺的液晶显示器及其制造方法。在形成之后，第一电极和第一信号线被绝缘。连接到第一电极的是第二信号线，其中第二电极在沟道层中接触，第三信号线在第三电极中与第三电极在沟道层中接触。在第二电极和第二信号线中，以及第三信号线和第三电极的上侧，涂覆透明像素电极材料。图案化像素电极材料以便放置在第二电极和第二信号线上。对其进行图案化以便放置第三电极和第三信号线。因此，可以减少必要的制造工艺以制造薄膜晶体管，因为在像素电极和第三信号线之间没有形成单独的绝缘层。

