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(43)

10-2004-0050236
2004 06 16

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10-2002-0078007

(22)

2002 12 09

(71)

.

20

(72)

LG

103 807

469-3 25/2

(74)

:

(54)

, 가 COT .

1 2 . , ,

, 가 ,

3

1 ,

2 1 - ,

3 1 COT

,

4a 1 4g 5a 5g 6a 6g 3 - ` , - ` , - ` ,
7 2 COT
8a 2 8j 9a 9j 10a 10j 7 - ` , - ` , - ` ,
< >
100 : 102 :
104 : 108 :
112 : 114 :
116 : 118 :
120 : 122 :
128 : 140 a,b,c :
142 : 148,150 : 1 2
152,154 : 1 2
156,158 : 1 2
160,162 : 1 2

on TFT) , COT(color filter

가 , 가

가 , 가
1 .

(6) , (11) (8) (8)
(P) (7) (17) (7) (18) (P) (5) ,
(22) , (5) (22) (T)가 (14) .

(22) (array substrate) (TFT) 가 (T)가
(matrix type) (15) , (P) (13) (15) , (P)
(17) (17) (indium-tin-oxide : ITO)
(17) (C)가 (13)
(C) 1 (30) (13) , 2 (13)
(30) (17)
(5) (22)
(5) 2
2 1 -
2 (22,5) , 1 (22) 2 (5) , 1
(22) (32) (34) (36) (38)
(T) (T) (40)
(P) (T) (38) (17) , (C)가 (13)
(5) (13) (15) (T) (6)
가 , (22) (P) (7a,7b,7c)가
) , (A) , (cross talk) (13) (B) (15) (17)
(15) (5) (13) (17) (A,B)
(black matrix)(6)가 가
(T) (6) (40)
(34)
, (5) (22) (misalign)가 가 ,
(6) (margin)
, 가 , (A,B) (6) 가
가

$$1^1, 2^2, 1^1.$$

가

1

2

1

2

1

가

가

가

2

2

1

3

2

1

1

2

1

가

2

2

1

3

1 ; 2

1 ; 가 2 1

1 , 2 1 , , . , , 1 ; , 2 1 , 1 2 1 , - 2 , - ; 1 1 2 1 , - ; . , .

-- 1 --

3 .

(100) (122) (102)

(118) (102) (116) (P)

(122) (116) (118)

(102) (116) (104) (108)

(112,114) (T)

(102,116) (P) (114) (148,150)

(140a,140b,140c)

(148,150) , 1 (148) (114)

(140a,140b,140c) , 2 (160) (140a,140b,140c)

2 (150) 1 (148) (114)

1 2 (148,150) (102) () (C_{st})

() (C_{st}) (102) , 1 2

(120) 1 , (102) 2

COT(color filter on TFT) , (T) (128)

(140a,140b,140c)가

(128) 가 , (102,116) (T)

(128) , (T)

(122) (140a,140b,140c)

(122)가 (160,162) (142)

(102) (122) (102)

4a 4f 5a 5f 6a 6f

4a 4g 5a 5g 6a 6g 3 - - , -

1 (3 - .) , -

4a 5a 6a (100) 1

(102) (104)

(102) (104) (100) (SiN_x) (SiO₂)

(106)

(108) (a-Si:H) (n+a-Si:H)

(104) (106) (108) (11

0) 2

4b 5b 6b (108) (110) (100)

(Cr) (Mo) 3 (112) (110)

(112) (114) (112) (118)

(116) (102) (120)

(102) (122)

(112,114) (122) (116) (122)가

(100) (SiN₂) (SiO₂)

2 (124)

2 (124) () (108)

2 (124) (108)

4c 5c 6c (124)

(118) (126) 4 (122) (102) (T) (128)

(116)

4d 5d 6d (128)가 (100)

3 (130)

3 (130) (SiN_x) (SiO₂)

4e 5e 6e 5 3 (130) 2 (124)

(106) (114) (P) (122)

, (122) (118) 1 2 (132,134) , (122)
 (102) 3 (136) .

4f 5f 6f , 3 (130) (100) 1
 (138) (ITO) (IZO)

, 1 (138) (100) (P)
 (140a,140b, 3 140c)

, (122) 1 (132) , (102) 3 (
 134) (142)

, (P) (140a,140b, 3 140c)가 , (122)
 (142) (100) 2 (146)

, 1 (138) 2 (146) 6 , 1 (P)
 148) (114) (120) 2 1 (148) , 1 (
 (140a,140b,140c) 2 (150)

, (122) 1 2 (152,154) , (122)
 (102) (142) 1 2 (160,162) ,
 (118) 1 2 (156,158)

(160,162) (142) ,
 가 (160,162) (102) , (102)

1 COT
 (, (Cr) (Mo) ,

, 6

, 2 5

-- 2 --

2
 COT

7 2 COT

, (200) (232) (202)
 (230) (202) (P)
 (224) (232) (224)

(202) (224) (204) (236a)
 (246,248) (T)

, (246,248) (238a)
 (224) (246,248) (232)
 (234a,236a,240a)

) (202,224) (P) (248) (272,274)
 (266a,266b,266c) .
 (272,274) , 1 (272) (248)
 (266a,266b,266c) , 2 (274) (266a,266b,266c) .
 2 (274) 1 (277) (248) .
 1 2 (272,274) (202) (C_{st}) .
 (C_{st}) (202) 1 , 1 2 (272,274)
 (228) 2 .
 , (228) (238a) .
 COT (266a,266b,266c)가 , (T) (254) , , ,
 (254) 가 , (202,224) (T)
 (254) ,
 , 8a 8j 9a 9j 10a 10j 2 COT
 8a 8j 9a 9j 10a 10j 7 - ` , - ` , - ` ,
 2 2 .(.)
 8a 9a 10a , (200) (T) (P) (D)
)(D) (S) (G) .
 (D,T,P,S,G) (200) 1 ,
 (202) (204) .
 , 8b 9b 10b , (202) (204) (2
 00) 1 (SiN_x) (SiO₂)
 (208) .
 212) 2 (208) (a-Si:H) (210) (n+a-Si:H) (214)
 PR (216) . , 2 (214)
 , 2 (Cr), (Mo), (Cu), (W), (Ti), (Al), (Al
 Nd)
 , (200) (A) (B) (C) (M)
 , (B) (D) (G) (T) (S)
 , (C) (T) , (A) (P)
 (M)
 , PR (216) 가 PR (220a) , 8c 9c 10c
 (T)

(D) (S) (G) PR (220b) .

(C) (T) PR (220a) 가 , (6b M)

PR (220a,220b) 2 (214) (212)

(210) PR (220a,220b) (224) , (224)

(D) (230) - (226) , (S)

(228) (T) (232)가 .

(224) (230) 1 (234) , 1

(234) - 3 (226) 2 (236) ,

(228) (238) , (232) 4 (240)

(234a,236a,238a,240a) (234b,236b,238b,240b)

PR , 8d 9d 10d ,

(6b C) (E)

(ashing processing)

(E) PR PR

(224) - PR (242a,242b) (F) (230)

(226) , (228) (232) 가

PR (236b) , (E) - (226)

PR (242a,242b) (F) (234b,236b,238b

,240b)

8e 9e 10e , (T)

(246) (CH) (246) (248) ,

(232) , (230) (224) , (202)

(202) (228)

(234a,236a,238a,240a)

(T) (236a) (active layer)

(236b) (ohmic contact layer)

8a 8e 9a 9e 10b 10e 2

8f 9f 10f , (246,248) (200)

(SiN₂) (SiO₂) 2

(250)

2 (250) () (236a)

3, 2 (250) (252)
 (228) 가 (T) (224) (202)
 (254)
 , 8g 9g 10g (254)가 (200)
 3 (256) (256)
 (SiN_x) (SiO₂)
 8h 9h 10h , 4 3 (256) 2 (250)
 (208) (248) (P) (228)
 (232) 1 (258) 3 (262)
 2 (260) (202) 3 (262)
 8i 9i 10i 3 (256) (200) 1
 (ITO) (IZO)
 (264)
 , 1 (264) (200) (P)
 (266a,266b,266c)
 , (232) 1 (9h 258) 3 (262)
 (268)
 8j 9j 10j (266a,266b,266c)가 (200)
 2 (270) , 2 (270) 1
 (264) 5 (P) (272,27
 4) (230) (232) (276,278) (202)
 (280,282) (232)
 (268) (284,286)
 1 COT
 (, (Cr) (Mo)
 , 5
 , 1 2 COT
 , 가 가
 COT
 가 COT 가
 , 가
 , 가 가
 .

1.

2.

3.

1, 1, 2, 2가

4.

5.

6.

7.

14.
8

15.
8

16.
8

(Cr) (Mo)

17.

1
가 2 1 2 1 2
3
2 1
1
가 2 2 1
17

18.
17

19.
17

20.

19

21.

17

1

1

2

1

2

1

2

1

2

22.

21

1

2

23.

22

1

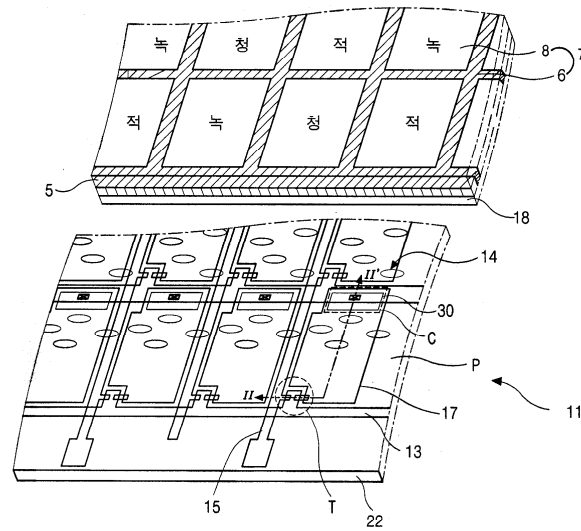
24.

17

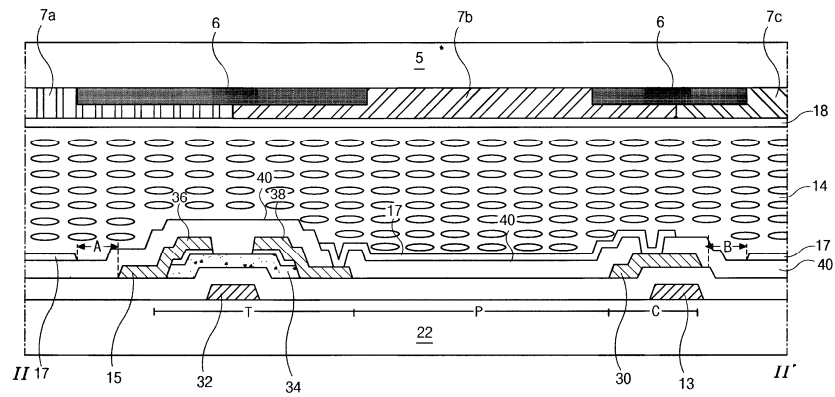
(Cr)

(Mo)

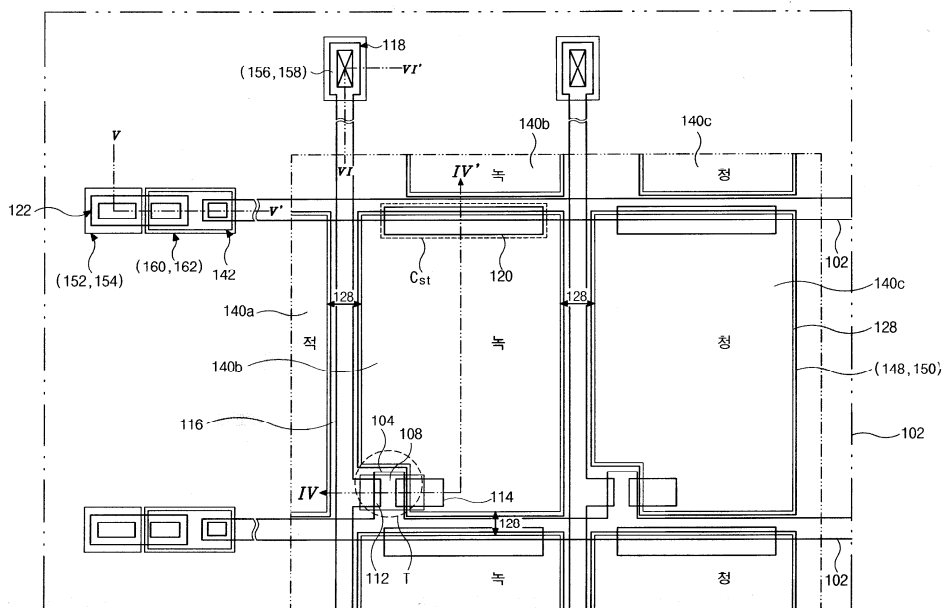
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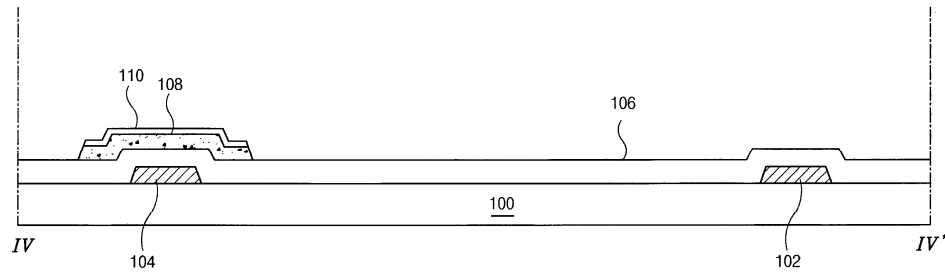
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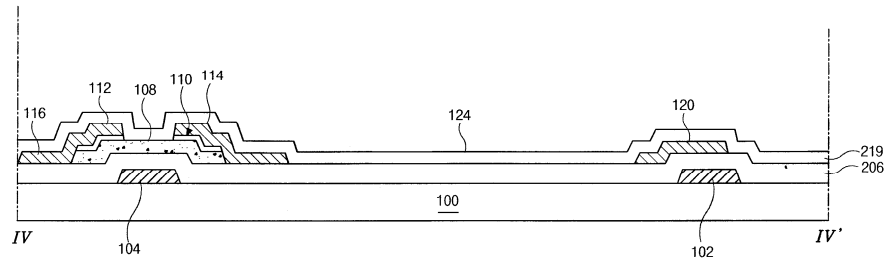
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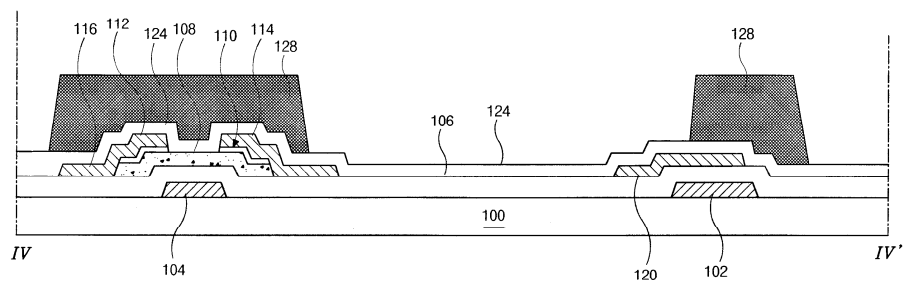
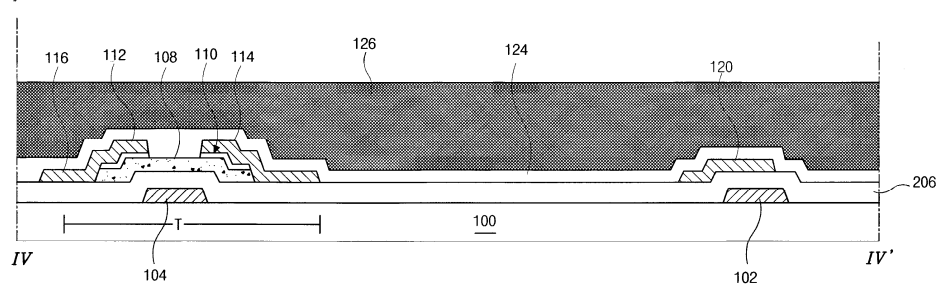
4a



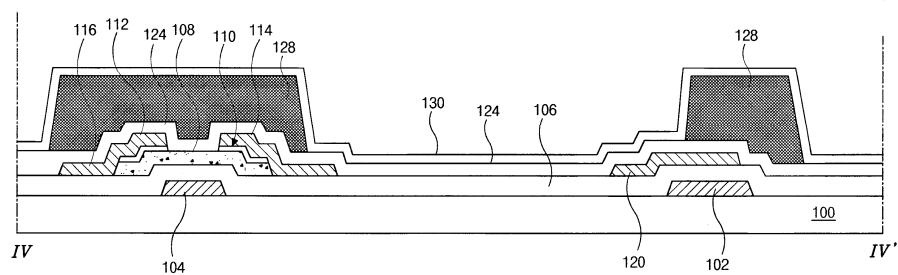
4b



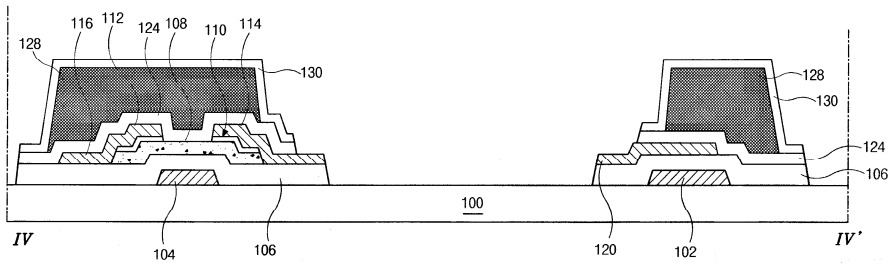
4c



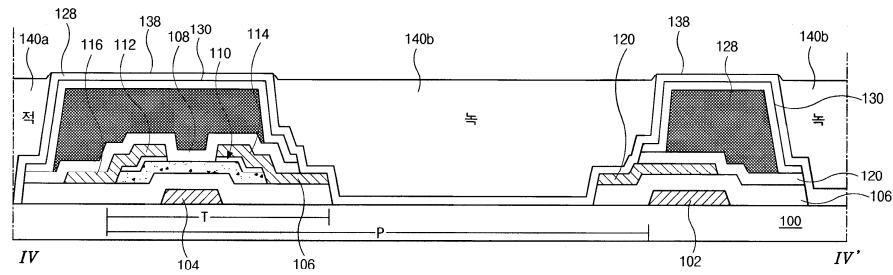
4d



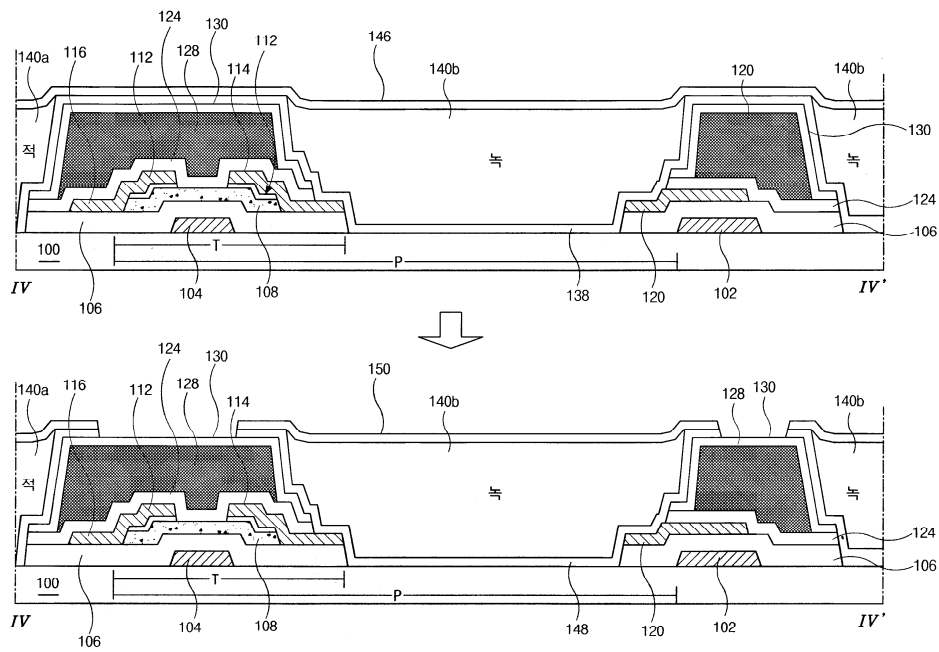
4e



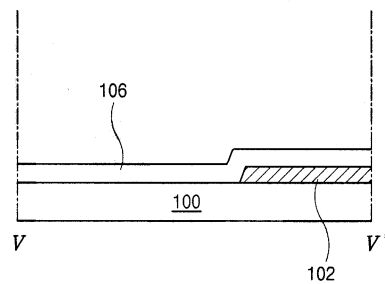
4f



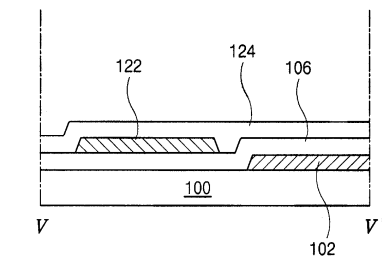
4g



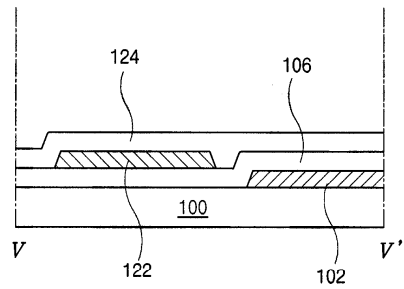
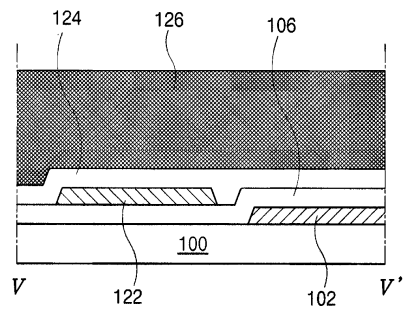
5a



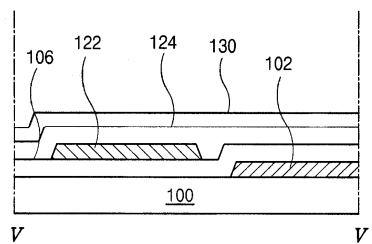
5b



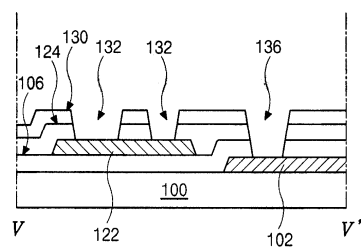
5c



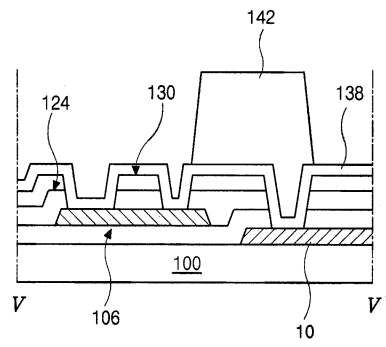
5d



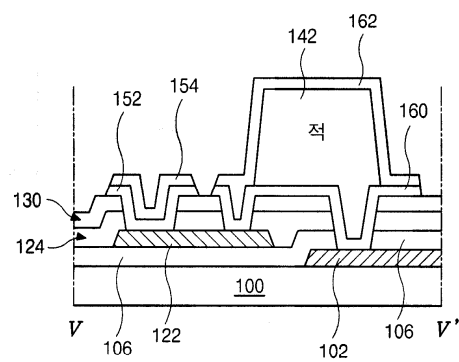
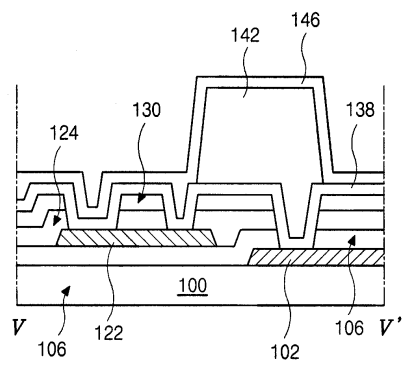
5e



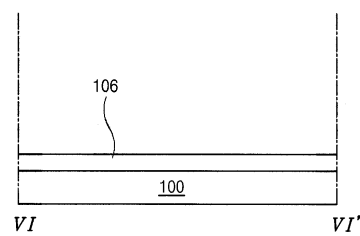
5f



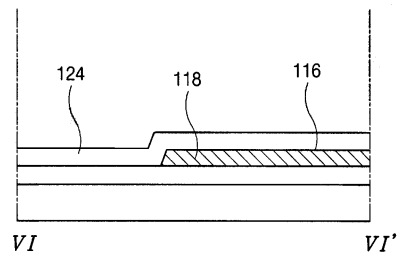
5g



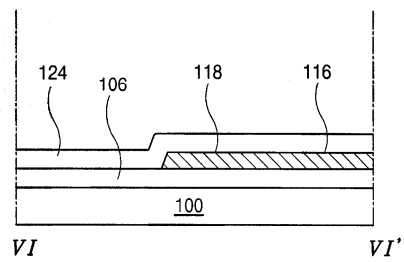
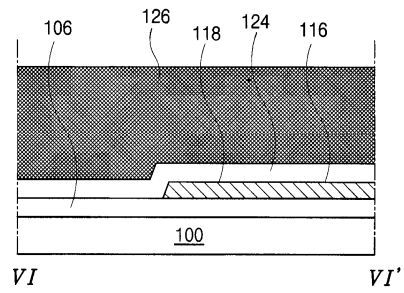
6a



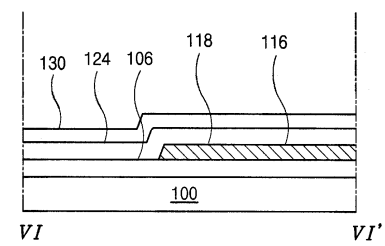
6b



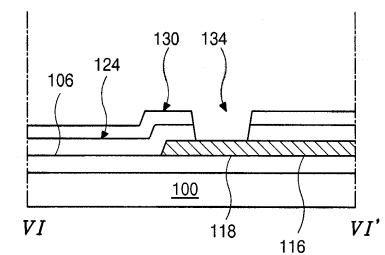
6c



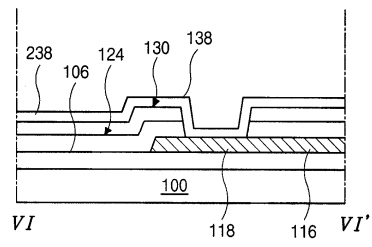
6d



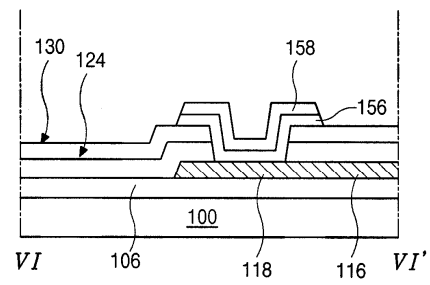
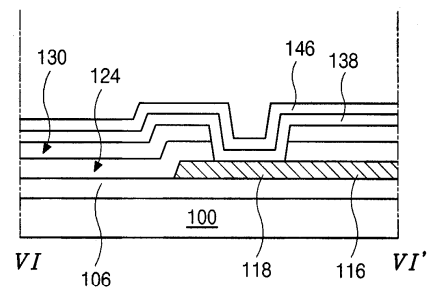
6e



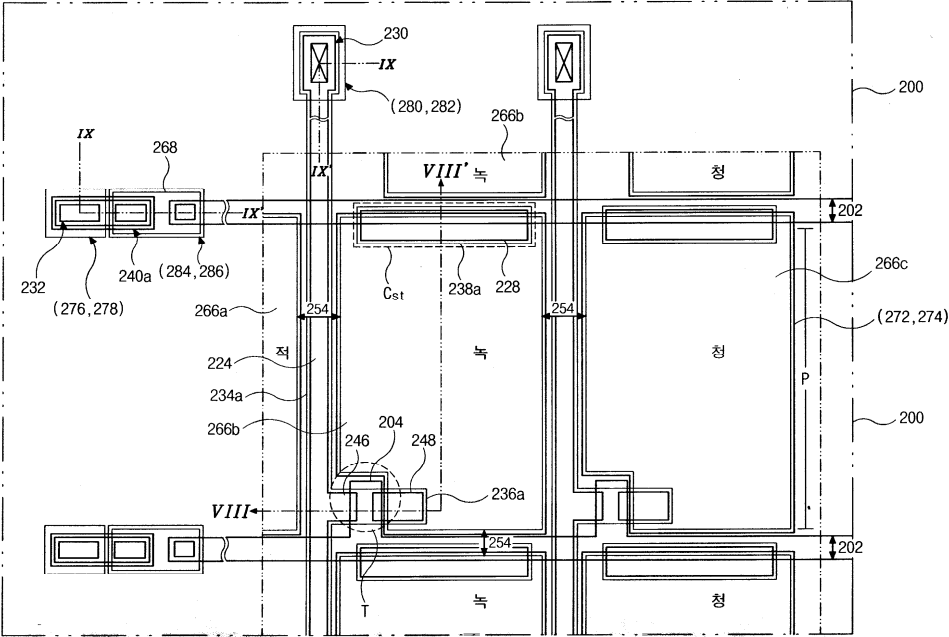
6f



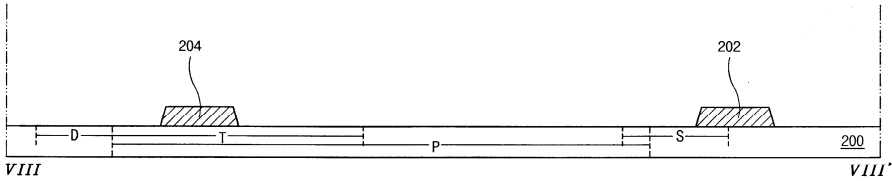
6g



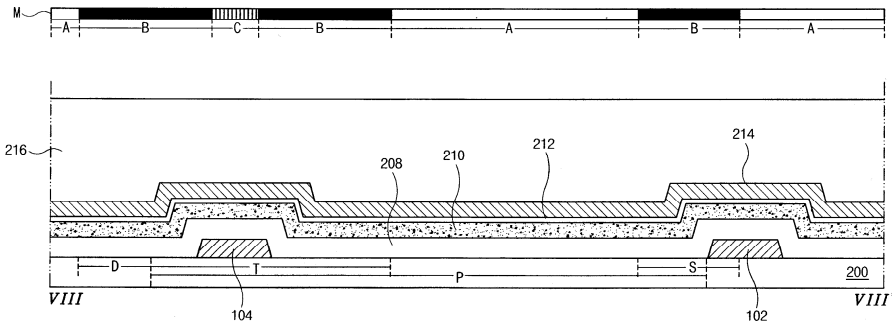
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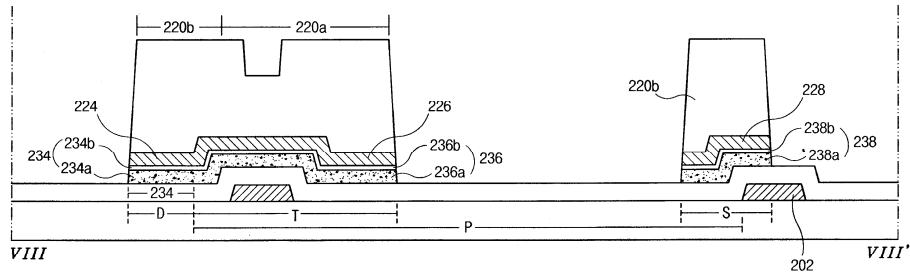
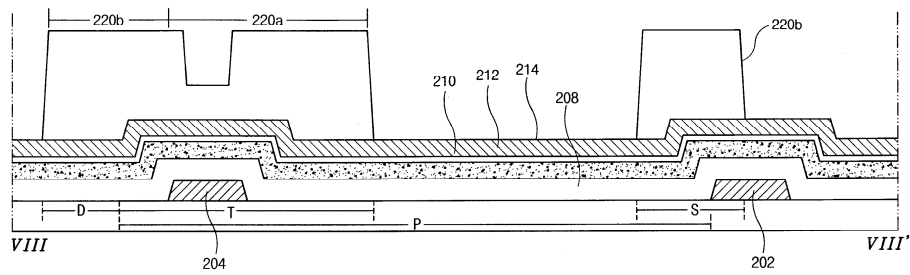
8a



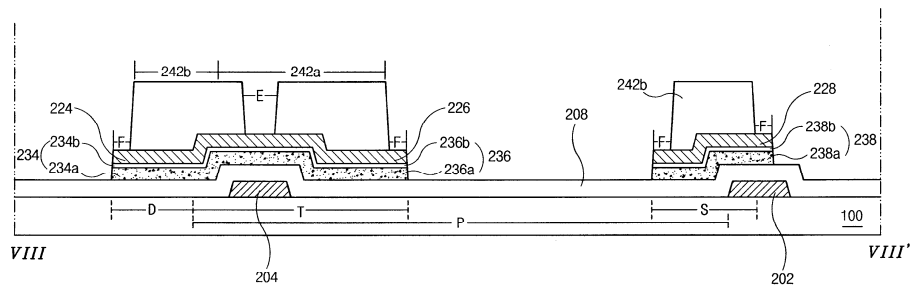
8b



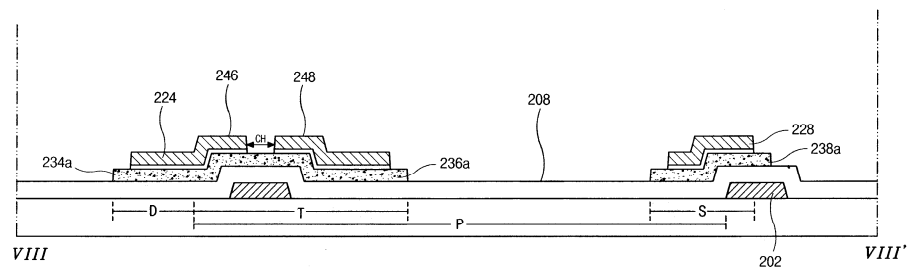
8c



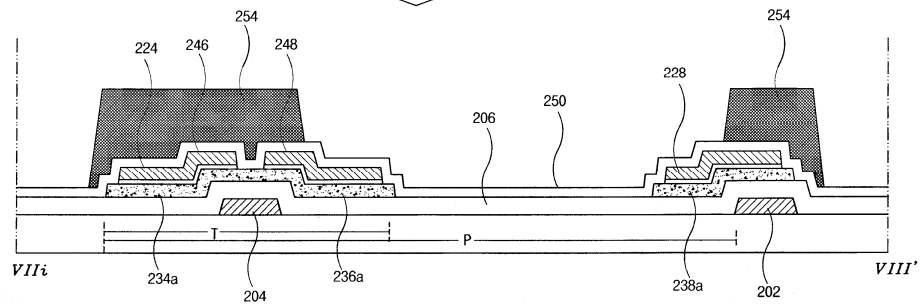
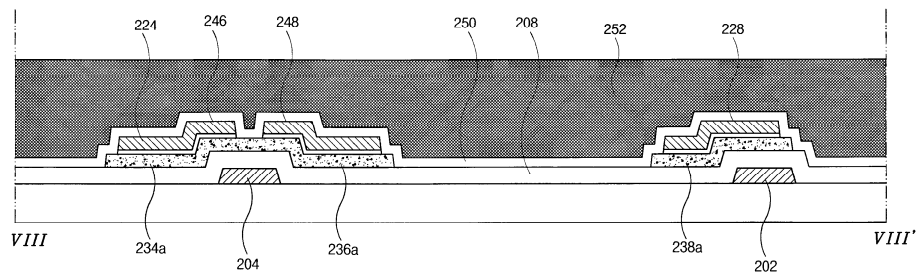
8d



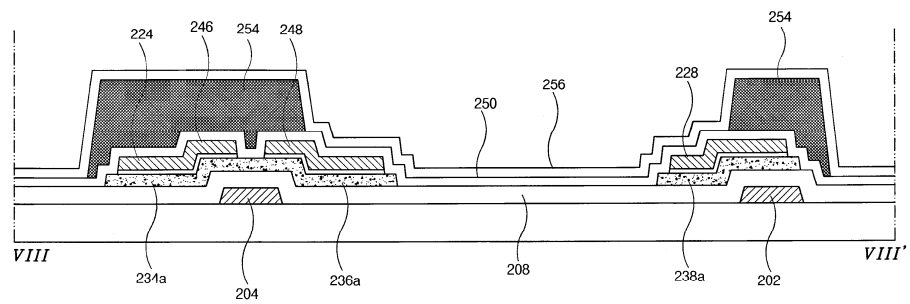
8e



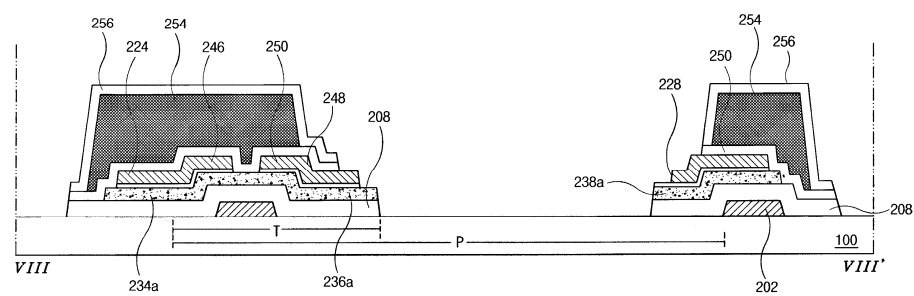
8f



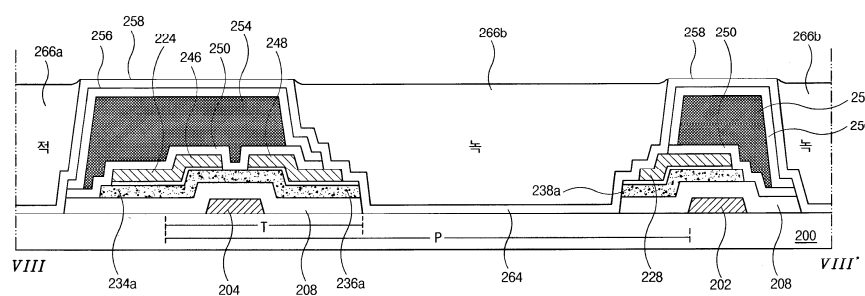
8g

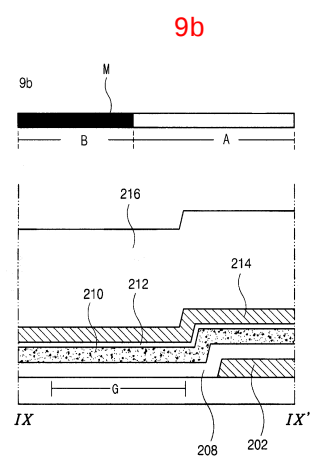
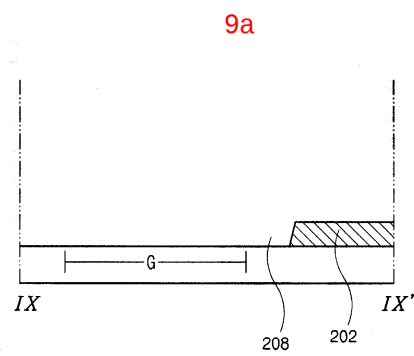
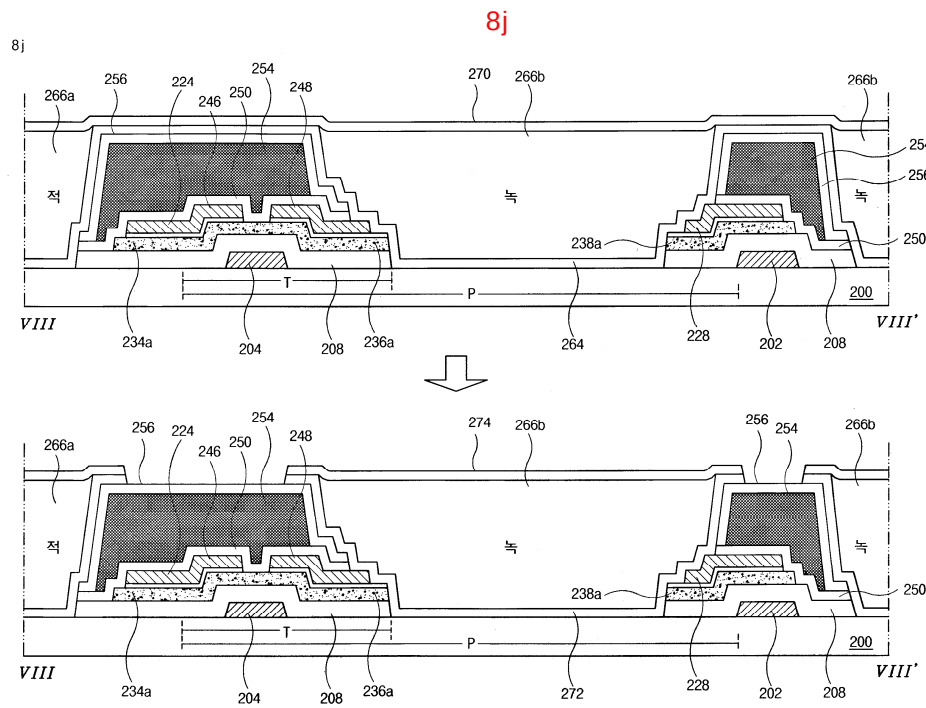


8h

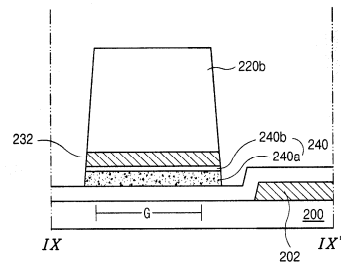
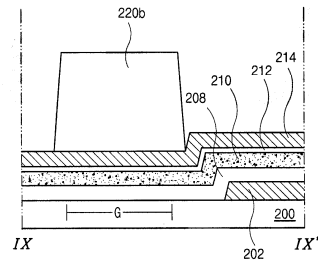


8i

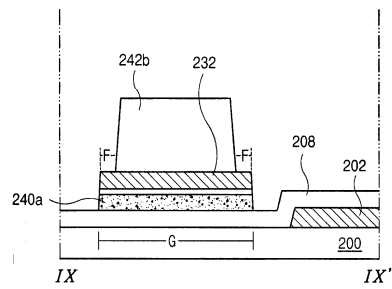




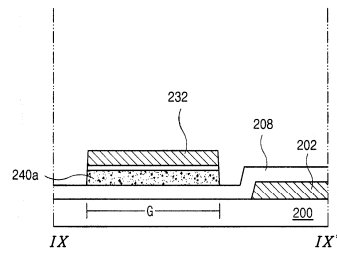
9c



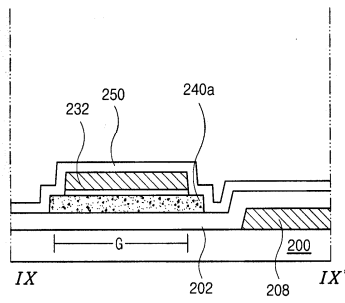
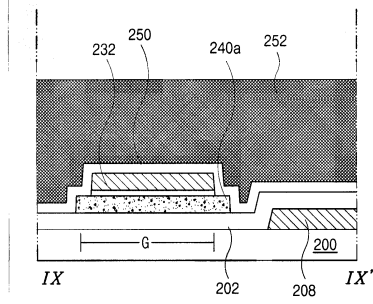
9d



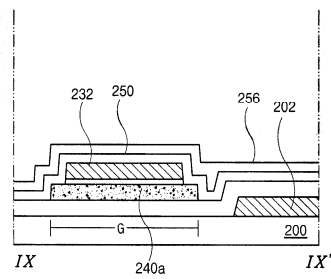
9e



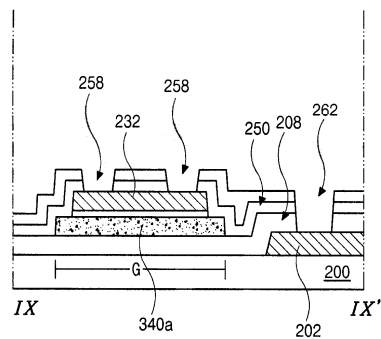
9f



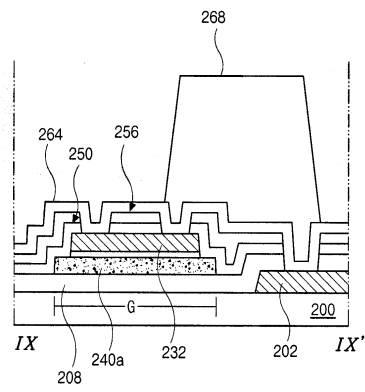
9g



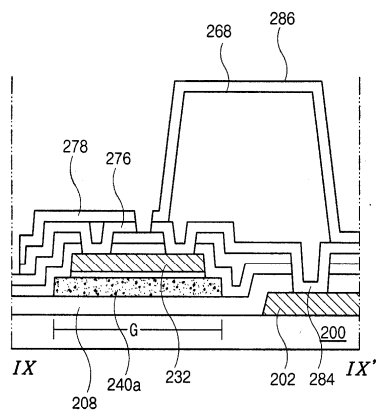
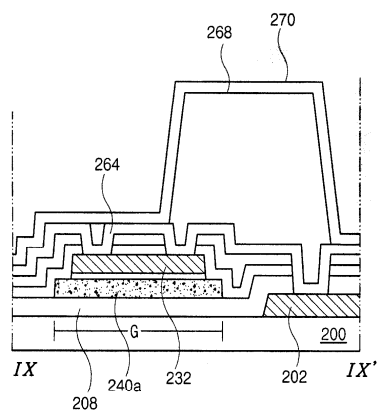
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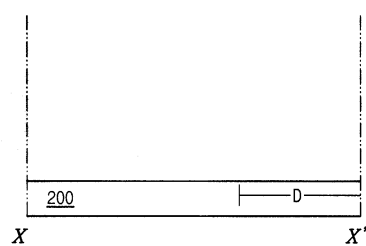
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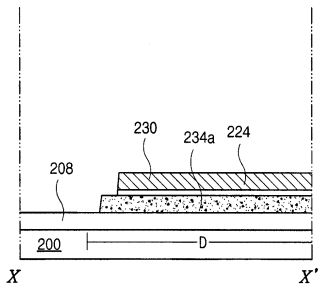
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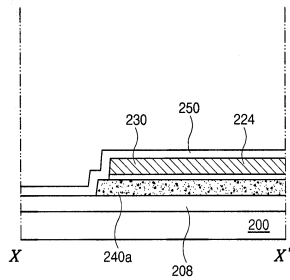
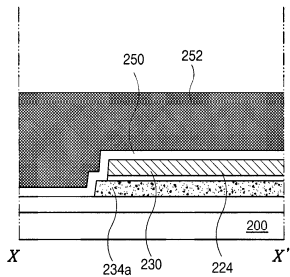
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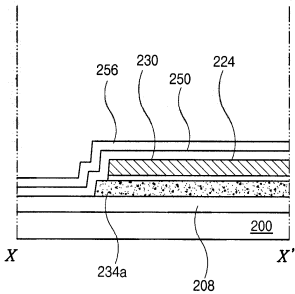
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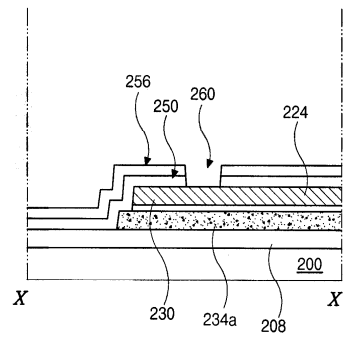
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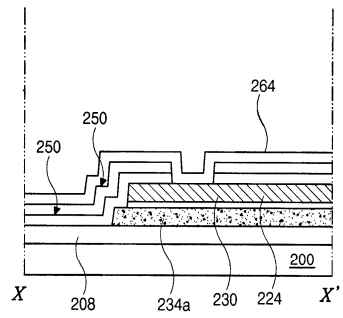
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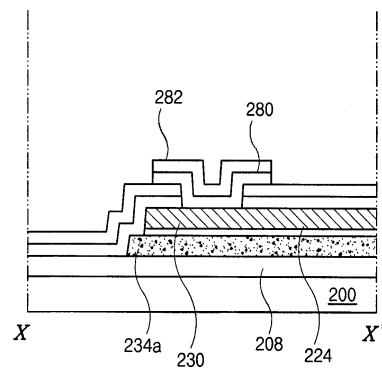
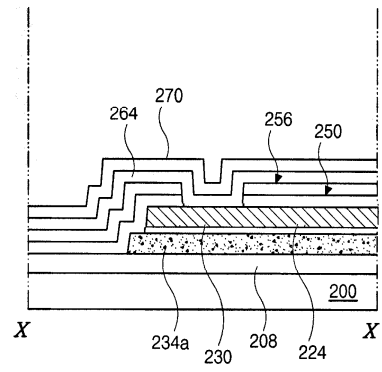
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10i



10j



专利名称(译)	用于液晶显示装置的阵列基板及其制造方法		
公开(公告)号	KR1020040050236A	公开(公告)日	2004-06-16
申请号	KR1020020078007	申请日	2002-12-09
[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		
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发明人	장윤경 박승렬		
IPC分类号	G02F1/136		
其他公开文献	KR100870699B1		
外部链接	Espacenet		

摘要(译)

用途：提供一种用于LCD（液晶显示器）的阵列基板及其制造方法，以通过形成强大的数据线材料来防止栅极焊盘断开，所述数据线材料具有用于图案化滤色器的试剂。

