

7a	7k	5	COT	.
8	6	COT	.	
9	7	COT	.	
10a	10e	8	COT	.
11a	11h	9	COT	.
< >				
810 :	812 :			
814 :	1	816 :		
818 :	819 :			
820 :	821 :			
822 :	824 :	2		
826 :	828 :	1		
830 :	832 :	2		
834 :	1	836 :	2	
838 :	1	842 :		
842a :	842b :			
846 :	2	848 :		
ch :	T :			
D1 :	D2 :			

가가 가

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

7% ,

가 가 (battery)

가 / .

가

가

가

가

가

1

), (16), (18) 1, 2 (10, 50) , 1 (10) (12)
(T) 1 (22) (T)가 ,
(P) (24) , 1 (22)
2 (26) . 1 (22), (24), 2 (26) (20)
(28) , 2 (26) (28)
(20) (30) .

$$\begin{aligned} & \text{(18)} \\ & \text{(12)} \end{aligned}$$

2 (50) (21) (52)가 (54) (30) (56) .

$$(30) \quad (58) \quad (70)$$

$$(24) \quad (P) \quad , \quad (30) \quad (P)$$

(, ,) → , (2 ,) → , (1 ,) → , (, ,) → , 가

(Al), (Al alloy), (Ag)

ITO(indiu

m tin oxide)

(damage)

가

가

가

가

1 (L1, L2) 2
가
2 가 1 2
(80) (82) (82) (84a)
(d1) (84b) (84b) (LL2) (84a) (LL1)
가
Transistor) 가 / COT(Color Filter on
가
1
/ /
가 4 가
가
6 8

[illegible]

-- 1 --

COT

3 1 COT .

$$\begin{array}{llllll}
12) & , & (110) & (112) & (112) & , \\
& & (114) & , & (112) & (114) \\
18) & (116) & , & (116) & (112) & (122) \\
& , & (118) & (120) & & .
\end{array}
\quad \begin{array}{l} (1) \\ (1) \\ . \end{array}$$

(118) (a-Si) (118a) , (118a)
 (n+ a-Si) (118b) , (120)
 (122) (118a) , (118a) (ch) .

$$\begin{array}{ccccccc}
 & (112), & (118), & (120) & (122) & (T) & , \\
 & (T) & 1 & (124) & , & 1 & (124) \\
 (T) & & (126) \nearrow & , & (126) & 2 & (128) \\
 & , & 2 & (128) & & & (P) \\
 1 & (130) & . & & , & (126) & \\
 (T) & & & & & & .
 \end{array}$$
$$, \quad 2 \quad (128) \quad \text{가} \quad .$$

2

$$\begin{array}{ccccccc} 1 & & (130) & & (126) & & (132)가 \\ & , & (132) & & 1 & (130) & 2 & (134) & (P) \end{array}$$
$$, \quad (132) \quad , \quad ,$$

1, 2 (130, 134) (136) (P) (114)
 , (116, 124, 128) (136) .

, COT , COT
 (+)
 가 ,
 ,
 가 가 .

-- 2 --
 , COT .

4 2 COT , 3
 (212b) , (210) 1 (212a), 2
 , (212) (212) (214a), 2 (214b)
 (214) 1 .

1 (212a), 1 (214a) , 2
 (212b), 2 (214b) ,
 , 1 (212a), 1 (214a) (Al) , 2
 (212b), 2 (214b) (Mo) .

(212) (214) (216) , (216)
 (212) (218) (218)
 (220) (222) , (212), (218), (220)
 (222) (T) .

(T) (214) 1 (224) , (21
 4) (216), 1 (224) (214) (218) 2 (214b) (218)
)가 , 1 (214a) .
 , 2 (214b) , 1 (214a)
) , 1 (224) .
 1 (214a) .
 , 1 (224) .
 , 2 (214b) , (dry etching)
 가 .

, 1 (224) (226), 2 (228), (230), 1, 2 (232,
 234) 1 .

-- 3 --
 , COT .

5 3 COT , 3
 (314), (316) , (310) (312),
 (320) , (318) (316) (318)
 18) (320) , (318) (320) (322) , (3
 (320) .

(312), (316), (318) (320) (T) , (324), (326), 2 (328), (330), 1, 2 (322) (332, 334) 3 가 .

-- 4 --

, COT

6 4 COT 5

(414), (416) (416) (410) (412), (420) (422) (422) (424) (422a, 422b, 422c) 1, 2, 3 (424) 1, 2, 3 (424a, 424b, 424c)

1, 3 (420a, 420c) 1, 3 (422a, 422c) (420b) 2 (422b) (spike)

가 ,

(T) (412), (416), (420) (422) (T) (424) (426) (428) 가 1 (430)

4b) (428) 3 (424c) (424c) 1 2 (430) (42)

가 , 가 .

-- 5 --

7a 7k 5 COT (design n)

7a 7d , (510, 520, 530, 540) (512, 522, 532, 542)가 7a, 7b (512, 522) 4 (510, 520) 7a (510) (512) (520) (522)

) , (522)가 .

7c (532) , 6 (530) , 7d (542) , 8 (540)

, 7e, 7f 7a (512) 7e (550) (552)가 , (552) 2 (550) 가 , 7f (560) (562)가 , (562) 3 (560) 가 .

7g 7i (572, 582, 592, 612, 622)가 가 7g (570) , (572) (570) , 7h (580) , (582) 2 (580) , 7i 7g , (590) (592)

7j, 7k (612, 622) 가 7j (610)
 (612)가 (612) 2 (622)가 (622) 2 (620)
 7j .

-- 6 --

, COT 가 가 .

8 6 COT , 1
 , .

(712) , (710) (712) , (712) (712) 1 , (714)
 (714) 1 (716) .

1 , (716) (712) (718) ,
 (714) (718) 2 (720) .

(718) (718a) ,
 (718b) 2 (720)
 2a (720a) , 2b (720b) .

(718) (722) (724) , 2
 (720) (722) (724) (726) .

(722) (724) (718a) , (718a)
 (ch ; channel) .

(712), (718), (722) (724) (T) ,
 (T) (726) 1 (728) , 1 (728)
 (T) (730)가 , (730)
 2 (732) .

1, 2 (728, 732) , (724) (734) (734)
 2 (732) (734) (724) 1 (736)
 , 1 (736) (730) (738)가
 , 1, 2 (736, 740) 1 (736) 2 (740)
 (742) , 1, 2 (736, 740)

(726) (P) , 1, 2 (736, 740) (738)
 (716, 728, 732) (P) .

, (722) (724) (726)
 , (738a) (D1) (738b) 1, 2 (714, 720)
) , (738a) (D2)
 , 가 (738b) (738b)
 . (714, 720)
 .

-- 7 --

, 6 COT .

9 7 COT .

(812) , (810) 1 (812) , (812) (812) 1 , (814)
(816) .

, (816) (812) (818) , 1 (818)
(820) (822) , 1 (814)
(818), (820) (822) ,
가 2 (824), (826) .

, (820) (821) , (821)
, (818) (819) .

0) (818) (818a), (818b) , (82
(822) (818a) (ch) (82
.

(812), (818), (820), (822) (T) .

(T) (826) 1 (828) , 1 (828)
(T) (830)가 , 1 (830)
2 (832) .

1, 2 (828, 832) (822) 1 (834)가 ,
1 (834) (P) (826) 2 (836)
) .

2 (832) 1 (834) (822) 1 (838)
, 1 (838) (830) 2 (846) (842)가
, (842) 1 (838) 2 (846) .

1, 2 (838, 846) (848) .

(826) (P) , (P) .

, (820) (822) (826)
(824) , 1 (814) / 2
2-D1) (824) 6 , 2 (836) 가 (842a) (842b) (D)
가 .

, 1 (814) .

-- 8 --

10a 10e 8 COT ,

10a 10d 7

,

10a , (910) (T) (926) , (922)
1 (934) , (916) (926)
(910) 2 (936) 가 1 (938) .

0) 1 (938) (P) , 1 (934) (94
가 (942 ; , ,)가 , (942) (940) 1
(934) (922) (944) (P) , (94

4) (T) (946)가 .

7 , 2 ,

가 .

10b , (T) (1026) , (1022)

1 (1034) (1016) (1010) 2

(1036) 가 1 (1038) 1 (1038) (

T) (1040)가 , (1040)

(1040) 1 (1034) (1

042) 가 (1044 ; , ,)가 , 1 (1044) (1040)

(1042) (1022) (1042) .

(1040)

, , 가 .

10c , 10a , (1142) (1146)

(1144) (1144) (1142) 1 (1134)

(1140) 가 , (1144) (1140) (1122)

(1146) , (1146) (T)

(1148)가 .

10d , 10a 10c , (T) (1226) (1

222) 1 (1234) (1216) (1210)

2 (1236) 가 (1238) , (1238) (T)

(1240)가 , (1240) (124

2 ; , ,)가 , (1242) (1240) (1242)

1 (1234) (1244) 가 (1246) , (124

8) (1244) 1 (1234) (1222) (1250)

.

-- 9 --

, 7 COT

11a 11h 9 COT

11a , (1310) 1 1 (1312) (13

12) 1 (1314) .

1 ,

.

11b , (1312) 1 (1314) 1 , (1315)

, 2 , 2 , 1 , 2 (1316)

, 2 (1316) , 가

(1318) (1320) , (1318) (1322)

1 (1314) 2 (1324) 2 (1324) 가

(1326) .

2 , (1318) (1320) (1326)

, ,

((Mo), (W), (Ni), (Ti)) .

(1316) (1316a) , 2 (1324) 2a (1324a)
 (1316) (1316b) , 2 (1324) 2
 b (1324b) (1322) (1317) .

(1318) (1320)
 (photoresist) (1318) (1320) (slit) (half tone)
 (1316a) (1316b) (ch)
 (1312), (1316), (1318) (1320) (T) ,
 (1326) (T) (P) (P) .

11c , (T) (1326) 2 1 (132
 8) 3 , 11d 1 (1328) (T) 11e (1330)
 3 3 4 1 (1328) (1320)
) 1 (1332) 1 (1332) , 1 (1328),
 (1315) (P) (1310) 2 (1334) 가
 2 (1336) .

11f , 2 (1336) , 1 (1332)
 (1320) 1 (1338) , 11g , 1
 (1338) 5 (1330)
 (1340) .

(1340) (P) , ,

1 (1314), (1315), 2 (1324), (1326),
 1, 2 (1328, 1336) (1340)가 , (1340a) (
 D11) 2 (1334) (1340) (1340a)
 (1340b) (D22) , (1340a)
 (1340b) .

11h , (1340) 1 (1338)
 2 (1344) , 6 1, 2 (1338, 1344)
 (P) 1, 2 (1346, 1348) , 1, 2 (1346,
 1348) (1350) .

1, 2 (1346, 1348) ITO(indium tin oxide)

가

COT

가

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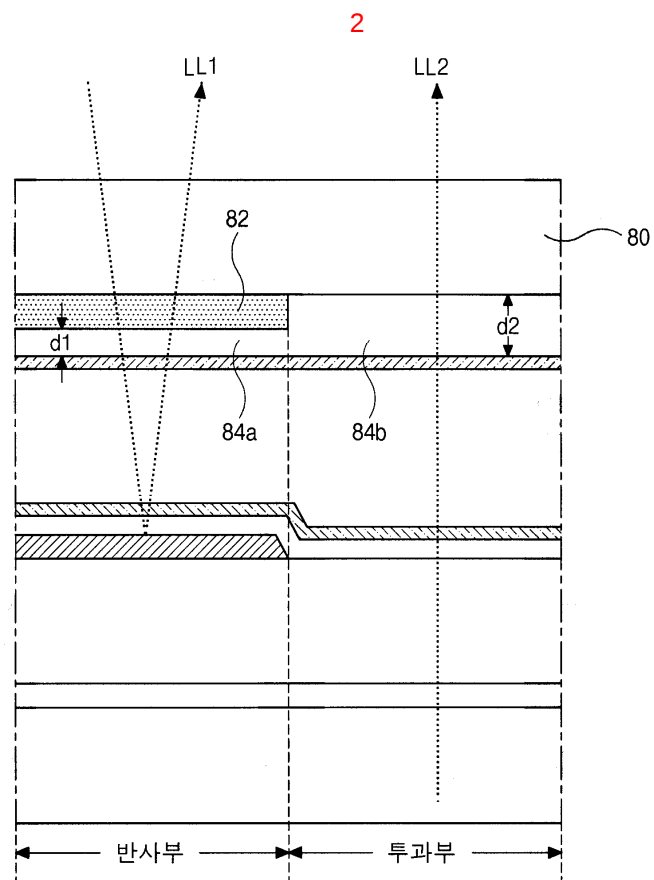
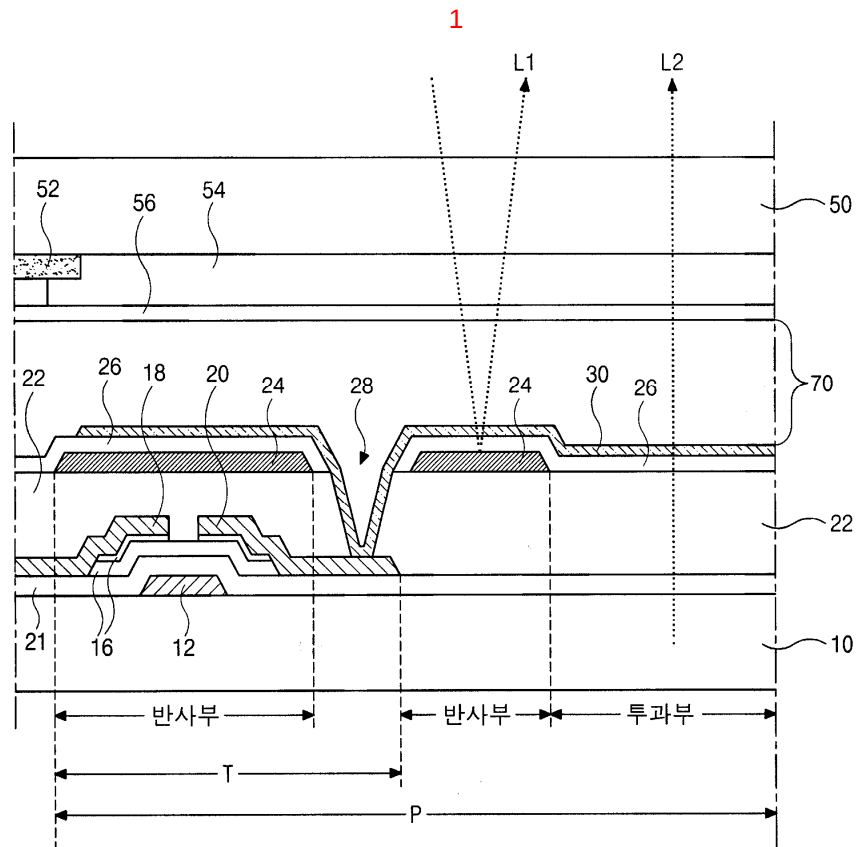
,

1, 2

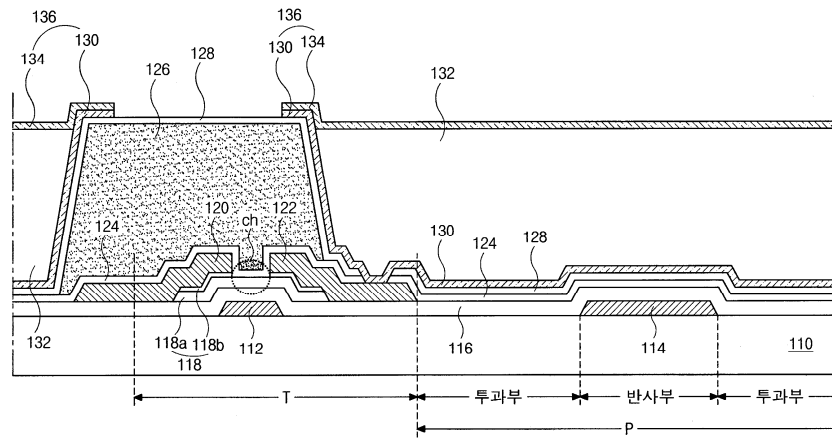
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1, 2

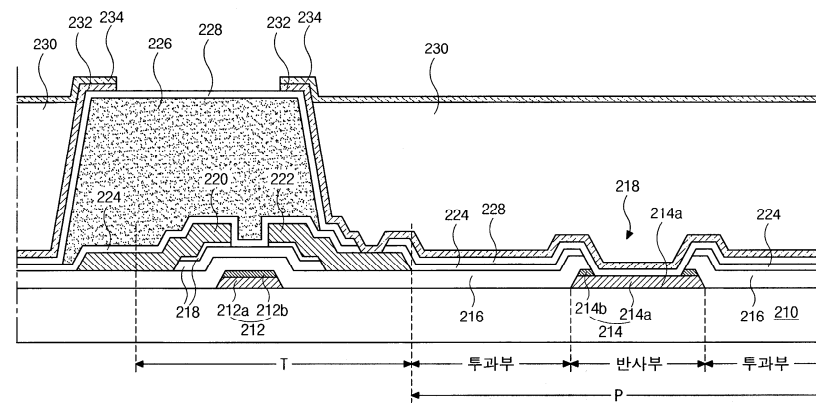
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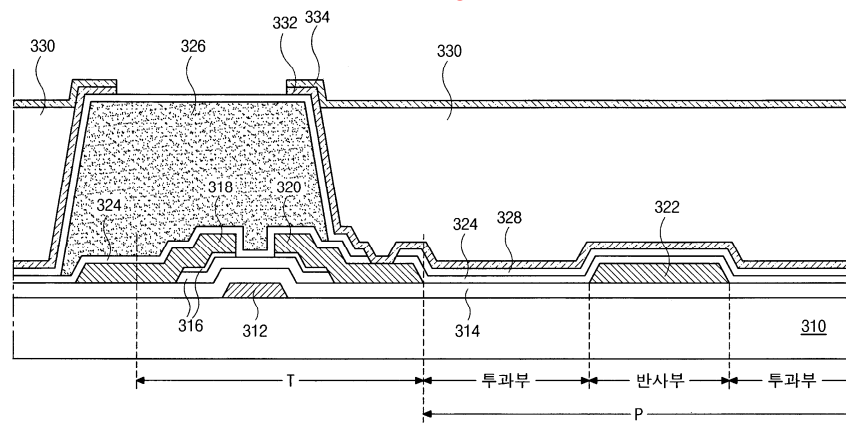
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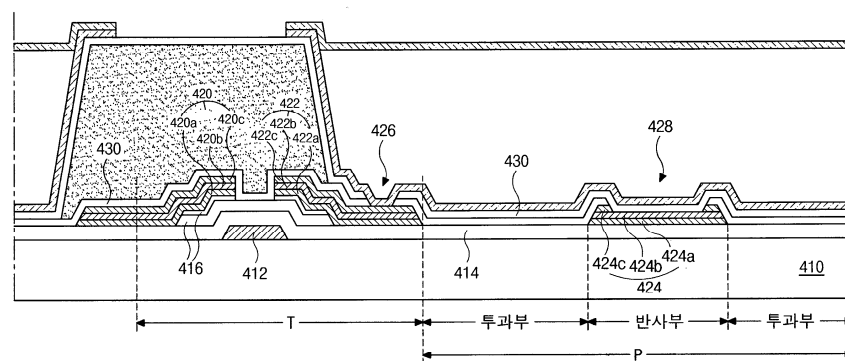
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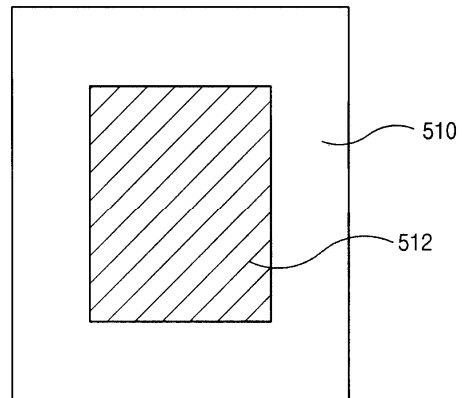
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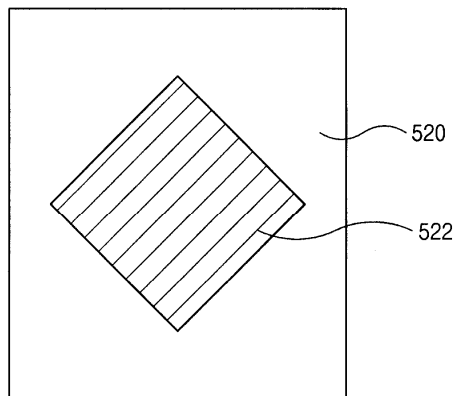
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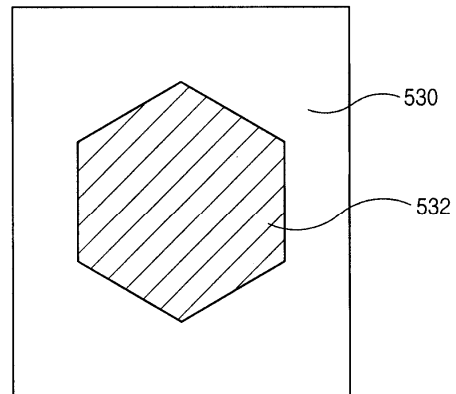
7a



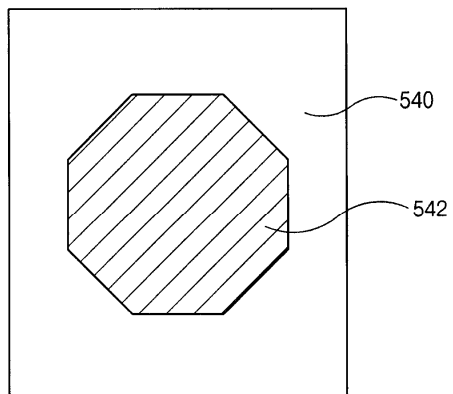
7b



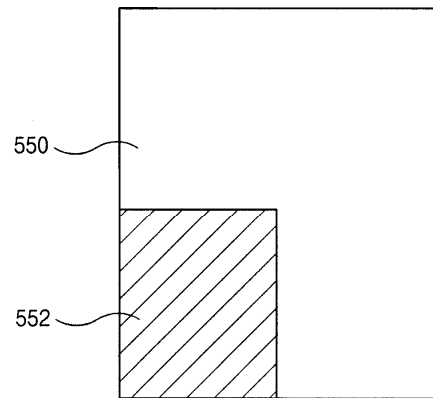
7c



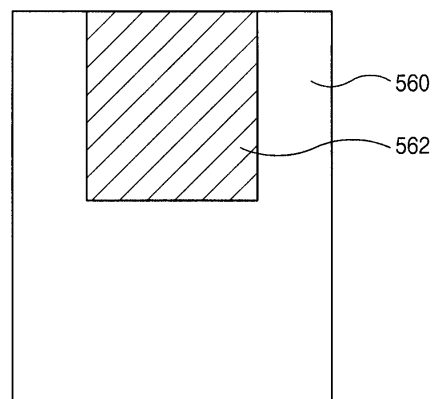
7d



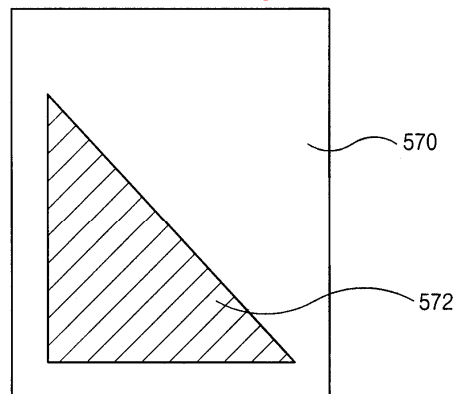
7e



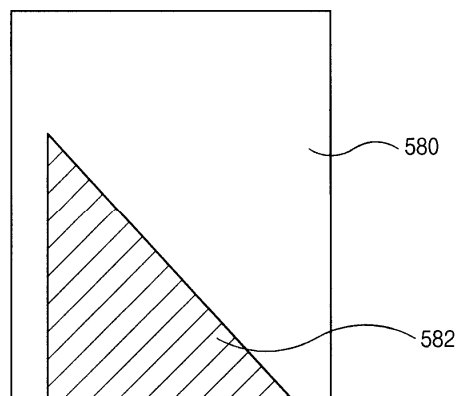
7f



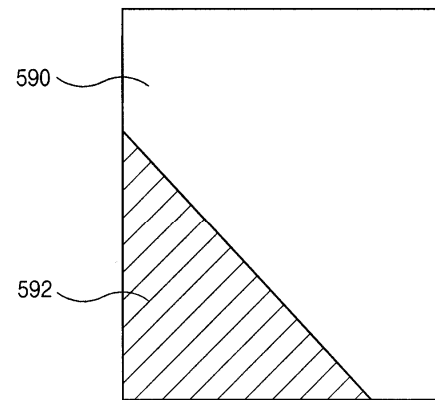
7g



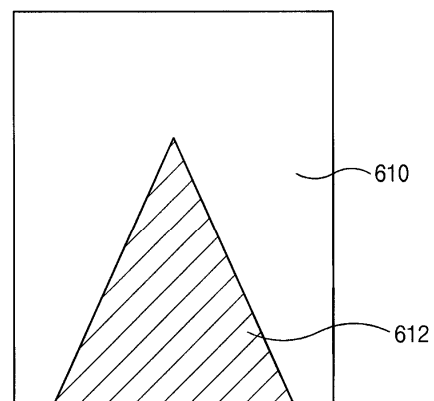
7h



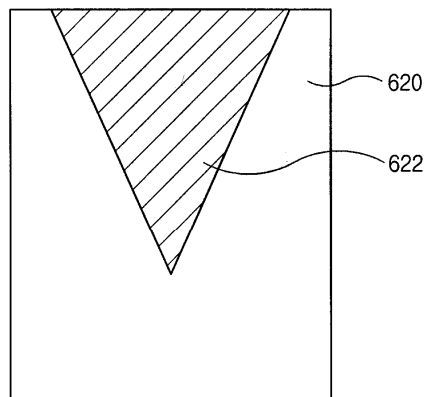
7i



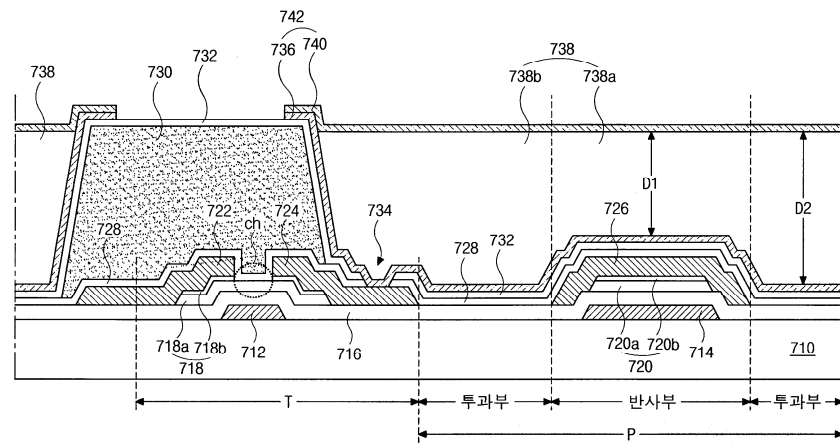
7j



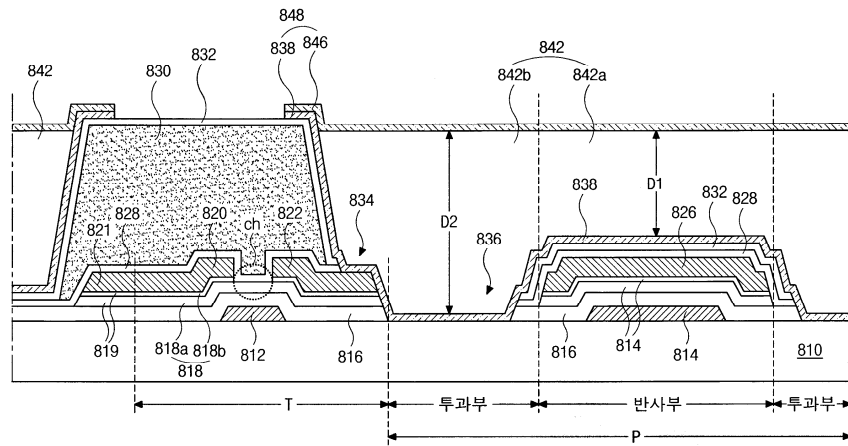
7k



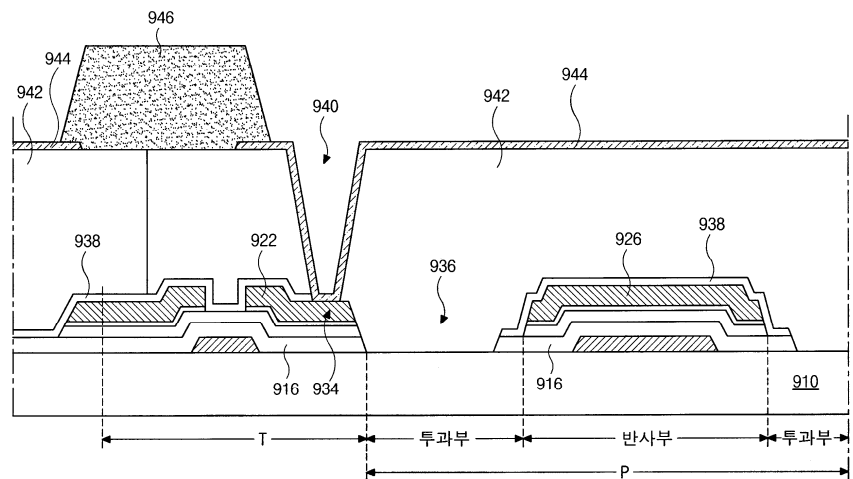
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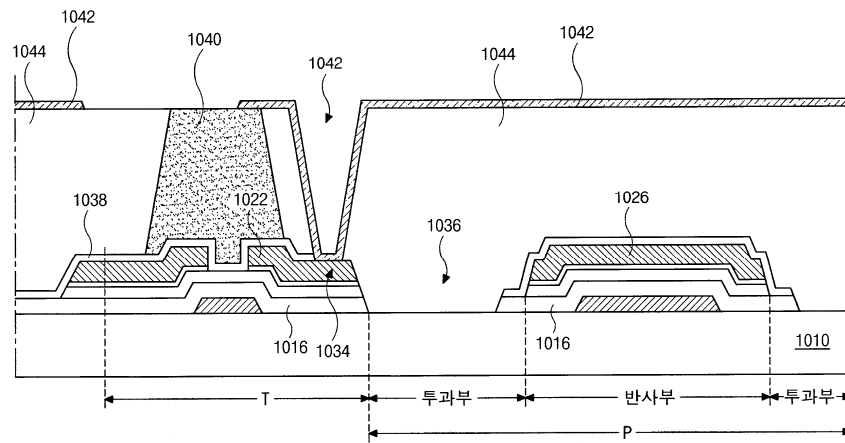
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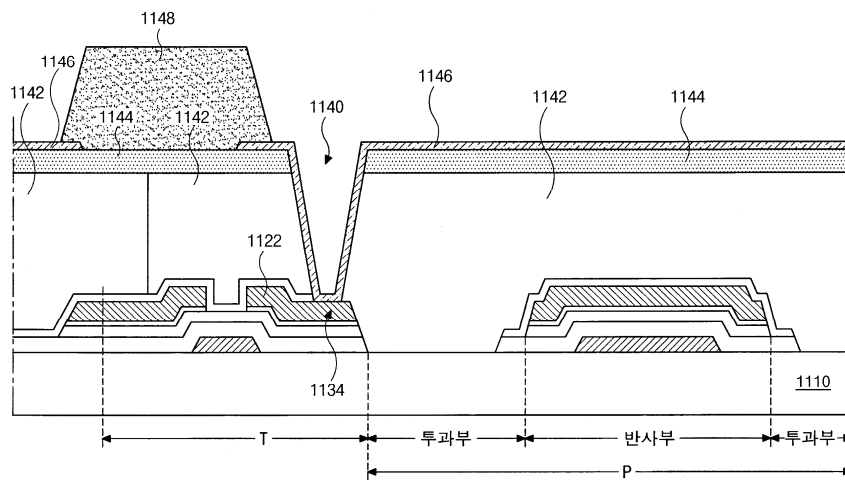
10a



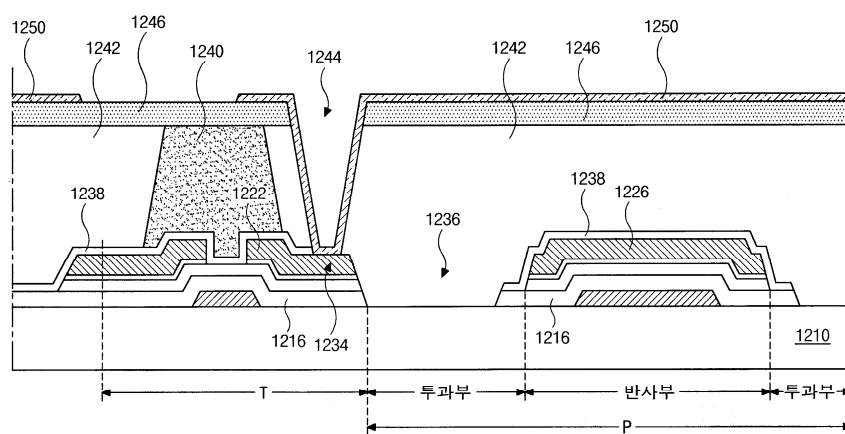
10b



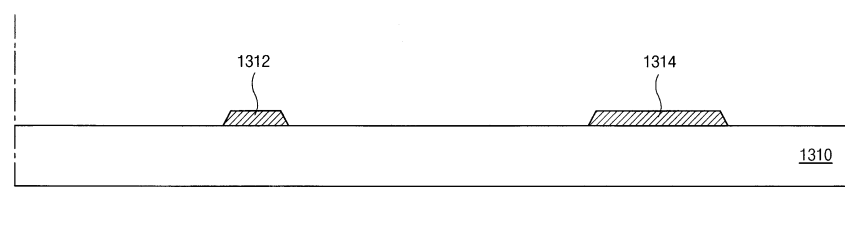
10c



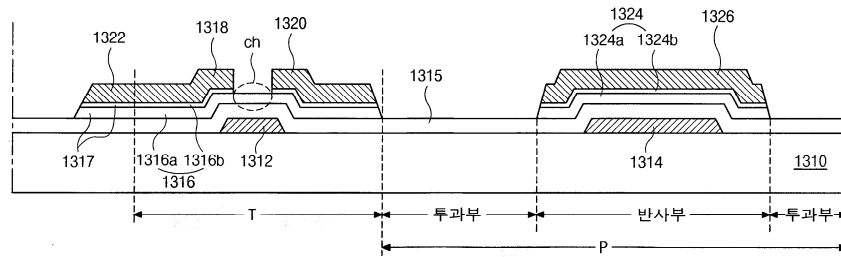
10d



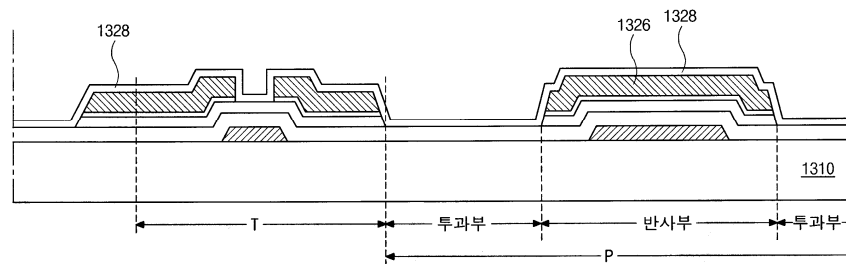
11a



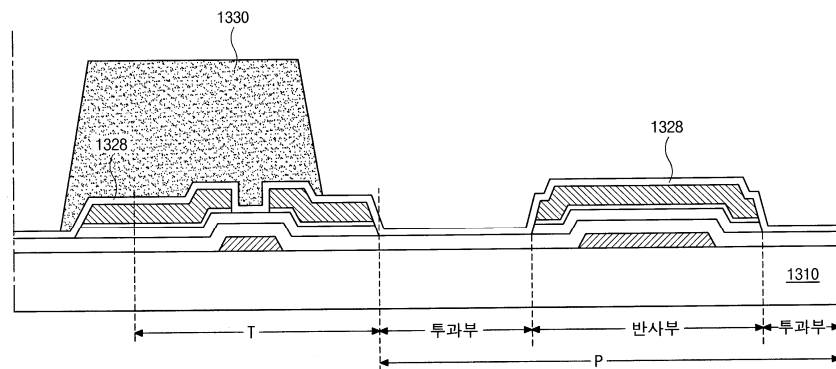
11b



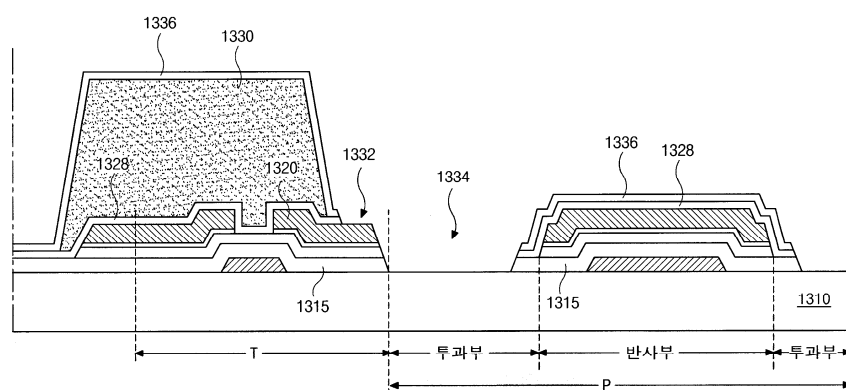
11c



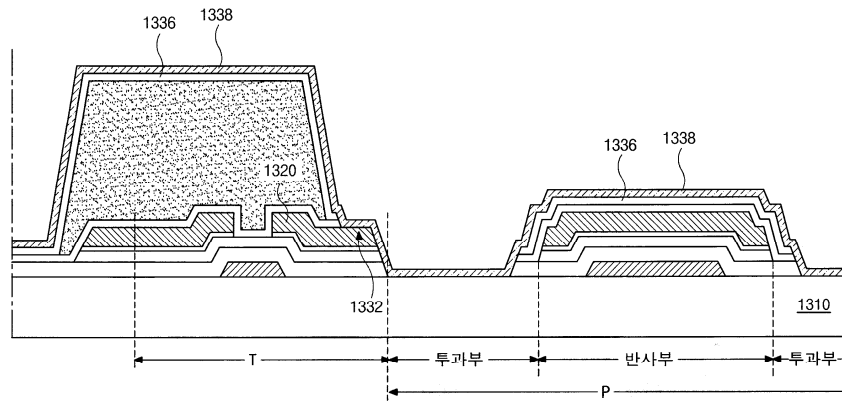
11d



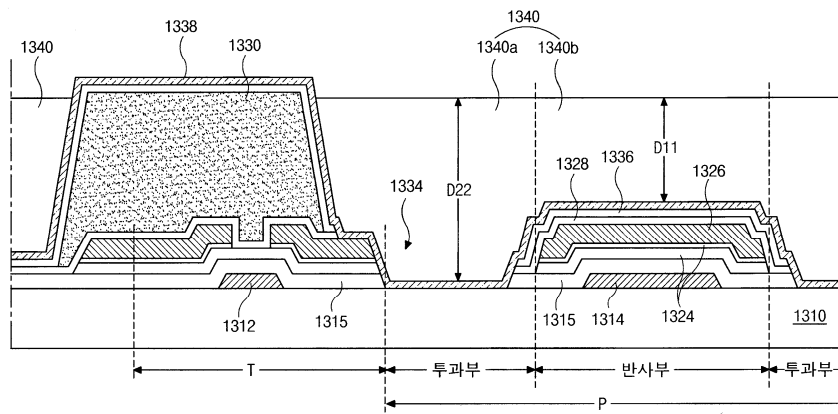
11e



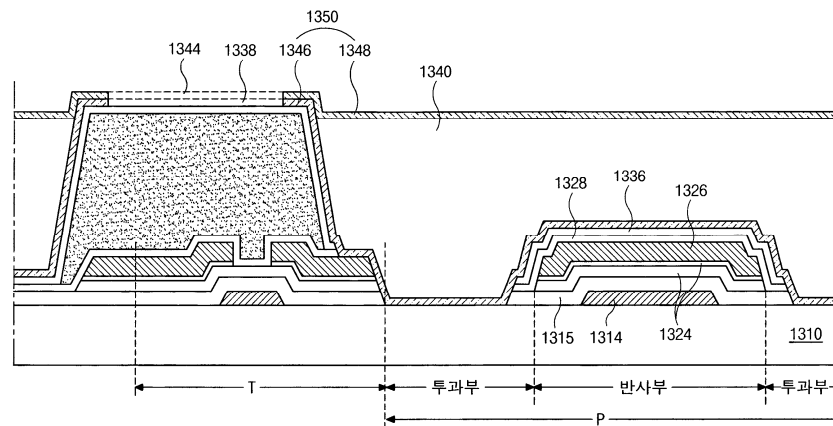
11f



11g



11h



专利名称(译)	透反液晶显示器		
公开(公告)号	KR1020040077161A	公开(公告)日	2004-09-04
申请号	KR1020030012615	申请日	2003-02-28
[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 WOONGKWON 김웅권 KIM SEJUNE 김세준		
发明人	김웅권 김세준		
IPC分类号	G02F1/1362 G02F1/1333 G02F1/1368 G02F1/1335 G02F1/1343		
CPC分类号	G02F1/1343 G02F1/1335 G02F1/1333 G02F1/1362 G02F2001/136222 G02F1/136227 G02F1/1368 G02F1/136209		
其他公开文献	KR100945442B1		
外部链接	Espacenet		

摘要(译)

根据本发明的COT结构半透射型液晶显示装置，反射器在与包含薄膜晶体管的电极材料相同的工艺中形成，而没有第一次单独处理添加。因此，可以省略单独的反射器制造工艺。同时，由于在第二薄膜晶体管的制造工艺中形成反射器的缓冲图案，因为穿透滤色器和反射体滤色器之间的色域差异被最小化，所以可以提高图像质量特性。第三，反射器的设计可以进行各种改变。便于以期望的速率控制透射部分和反射体的纵横比。

