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(12) (B1)

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(11)
(24)

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10-0450701
2004 09 20

(21) 10-2001-0087518
(22) 2001 12 28

(65) 10-2003-0057141
(43) 2003 07 04

(73) .
20

(72) 454 207-1107

3가271-79

(74)

:

(54)

, / (scribe break)

1

2

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2

,

7

1

2

3

4a

4c

3

- , - , -

5

1

,

6a	6d	5	- , - , -		1
			,		
7		2			
8a	8d	9a	9d	7	- , XI-XI, XII-XII, XIII-XIII, XIV-XIV ,
2					.
<				>	
200 :		201 :			
202 :		204 :			
206 :		208 :			
210 : 1		214 :			
218 :		220 :			
224 :		226 :			
228 : 2		234 :			
236 : 2		1			
238 : 2		2			
240 :			242 :		
246 : 1		1			
248 : 2		2			
250 :			254 :		
256 : 1		258 :			
260 : 2		262, 264 :			

(LCD)

가

가

가

()

()

(AM-LCD : Active Matrix LCD)

가

(6) (, ,)(8)

(5) (P) (7) ,

(22) (5) (17)

(T) (14)

(22)

(P) (13) (15) (matrix type)

(17) (13) (15) (P)

(indium-tin-oxide : ITO)

(13) (15)

(24) (26)

(24, 26)

(T)

2

²
st1 (TFT)가
, TFT
st2 (Alignment layer) (Rubbing) (rubbing)
, (Display)
가 (Display)
, (seal pattern)
st3 가
, (Spacer)
st4 가
, (st5).
st6 st1 st5
, 가 가
st7 cm² μ m 가
st8 / (scribe/break)
, 3
3 (11) (5) (22) (13) (13) (2 (24
2) 가 (13) (P) (15)
) (15) (P) (26) (17) (30) (32) (36,38)
(T)가 (24,26) (D) 가 (24,26)
(24,26) 가 (60) (24,26) (62) (link line)(42,46)
, (13,15) st8 (5) 가 / (scribe/break)
(D) (D) (22) (Al), (3 13) ,
, 4a 4c 3 - , - , -
, 4a (42) , (42) (3 13) ,
, (30) (3 13) (24) (42) (24)
2700

(22), (24) (SiN_x) (42) (SiO₂) (30) (3 13) 1
 (31) 4000
 (31) 4b (30) (31) (island)
 (32) (34) (a-Si:H) (34) n+
 p+ (32) (34) (22) (Cr), (W), (Mo),
 (Ti) (34)
 (36,38) (36) (15)
 (15) (46) (46)
 (26) (26) (15) (46) 1500 가
 (34) (36) (38)
 (32) (36,38) (carrier)가 (tive chann
 el)
 (15) (22) (BCB) (Acryl) (re
 sin) (50)
 , 2000 가 (50)
 (50) (38) (52) (24)
 (26) (54) (56)
 - 4c (IZO) (22) - - (ITO)
 (38) (P) (17)
 , 가 (24) (26)
 (60) (62)

가
 , 6000
 , 가 2000
 (scratch)
 1 (dummy line) 2

1 ;
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[illegible]

6a 6d 5 - , - , - , 1

, 6a , (100) (Al), (102) (10

8) (5 106) , (104) , (108)

, 1 (104) (1 106) (109) (102) (108)

(109) 2700 (108) (102) (109) (100) (

SiN_x) (SiO₂) (110) 4000 가 (island) (112)

(114) (104) (110) (112) (a-si:H) , (ohmic cont

act layer) (p+ n+a-Si:H) , 1 (109) 2

(116) 2000 가 (112) (114) (116) (100)

, 6b (Cr), (W), (Mo), (Ti) (118,120) ,

(118) (114) (122) (124) , (124)

(122) (126) (109,116) (124) ,

, (124) (122) (118) (124) 1500 ,

, (114) (112) (118,120) (carrier)가 (tive c

hannel) (112) (122) (100) 2000 가 (SiN_x) (12

8) (SiO₂) (128) (120) (129) , (132)

, (108) (126) (130) (132)

, (108,126) (130,132)

, () (128) (100) - - (ITO)

- - 6d (IZO) (P) (134) ,

(120) 가 (108) (126)

, (136) (138) (124) 420 (14

0a,140b) (102) (124) 2700 가 1 (109) 2000 가

2 , (116) 7920 10700

, (124) 3000 가 ,

, (124)

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2 가 ,

, 7 2

(201) 2 (199) (200)
 , (200) 가 (202)
 (202) (206) (202) (208)
 , (206) 2 (228) (234) 2 (228)
 1 (236) (208) 2 (254) (240) 2 (228) 2 (238) 1 (20
 6) (256) (208) (206) 2 (228)
 , (202) (202) (222) (202) (224) (P) (222)
 , (202) (222) (224) (224)
 (226) (224) 1 (210) 1 (210) 1 (246) (2
 26) 1 (210) (242) 1 (210) (224) 1 (248) 2 (2
 60) (250) 1 (210) 2 (248) 2 (2
 (210,228) (201) (B) (206,224)
 , (206,224) (210,228) 가
 (210,228) (202) (222)
 가 (224) (206)
 , 가 (262,264)
 , 8a 8d 9a 9d 2
 8a 8d 7 X-X , 9a 9d 7 XI-XI, XII-XII, XIII-XIII, XIV-XIV
 2 , 9a 9d .(, 8a 8d
 , 8a 9a , (200) (Al),
 (204) , (7 202)
 (206) , (206)
 (208)
 , (208) 가 1
 (dummy line)(210)
 , (7 202) 1 (210) (Al)() (Cr)
 (Mo) 2 (208) (206) 1 (210) (200)
 (SiN_x) (SiO₂)
 (212) (212) (a-Si:H) (n+
 p+a-Si:H) (204) (212) (214)
 (216) 8b 9b , (214) (216) (200)
 (Cr), (W), (Mo), (Ti)
 (216) (218,220) , (218)
 (222)
 (222) (224) , (224)
 (226) (206) 2 (228)
 , (218) (220) (216)
 (214)

(214) (218) (220) (carrier)가

(224) 1 (210)

1 (210) 2 (228) (206) (224)

8c 9c (222) (218,220) 2

(228) (200) (SiN_x) (SiO₂)

(230) (212) (220)

(232) (208) (234) 2 (238) ,

(228) 2 (236) 2 (240)

(238)

(226)

1 (210) 1 (242) , 1 (210)

(246) 2 (248) ,

2 (248)

(250)

8d 9d (200) - - (I

TO) (IZO)

(220) (P)

(252)

(208) , 2 가 2

(206) (254)

가 2

1 (256) (206) 2

(226) 1 (210) 1 (246) 가

1 (210) (258)

(210) 2 (9c 248) 가

1 (210) 2 (260)

(210,228) (210,228)

(206) 2 (7 262,264)

(228) (254) 1

(210)

(256) (258) 2 (260)

(224) 1

(206) (224)

(210,228)

(212) (230)

(228)

2

2

가

(57)

1.

2.

1 ,

3.

1 2 ,

1 ,

2

4.

2 ,

(a-Si:H)

5.

2 ,

6.

1 ,

7.

1 6 ,

- - (ITO) - - (IZO)

8.

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8 9 ,

- - (ITO) -

(IZO)

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2 2 1 1 1 2 ;

11 12. , .

11 13. , 1 , 2

12 14. , (a-Si:H) .

12 15. ,

11 16. ,

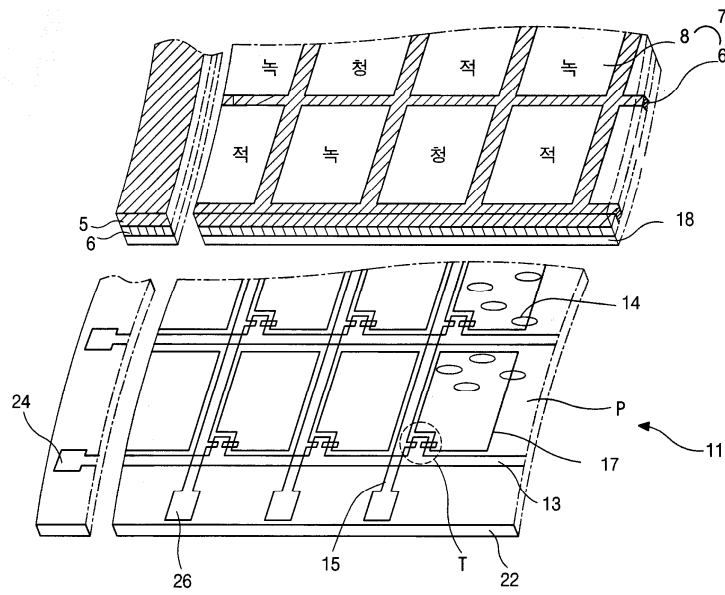
11 17. 16 , 1 2
- - (ITO) - - (IZO)

18. ; , , 1 ; 1 ; , 2 ; , 1 2 ; , 2 2 ; , 1 2 2

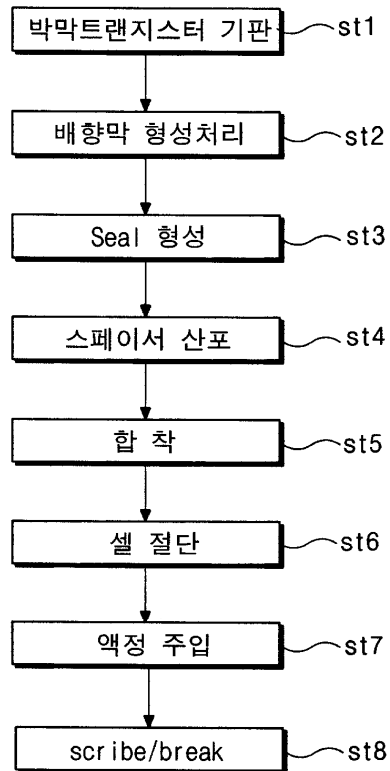
18 19. ,

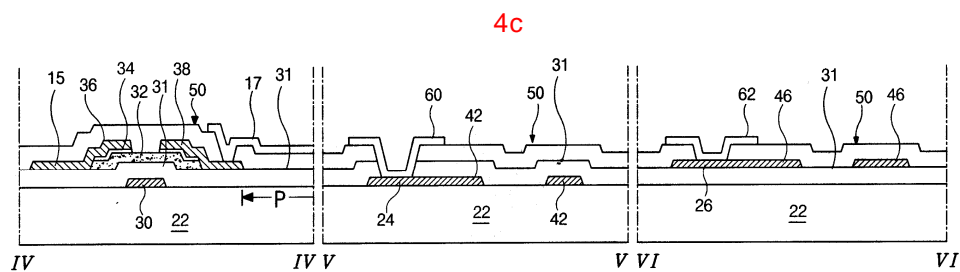
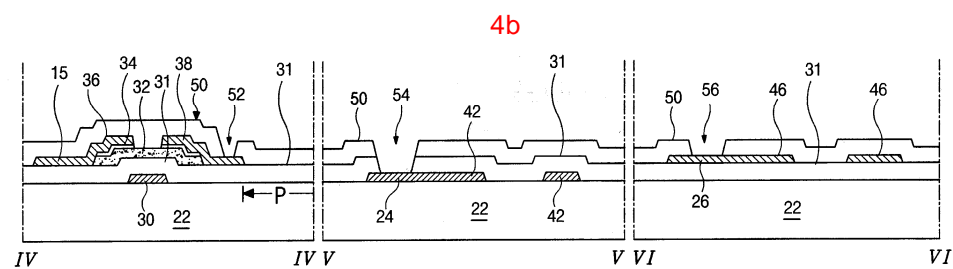
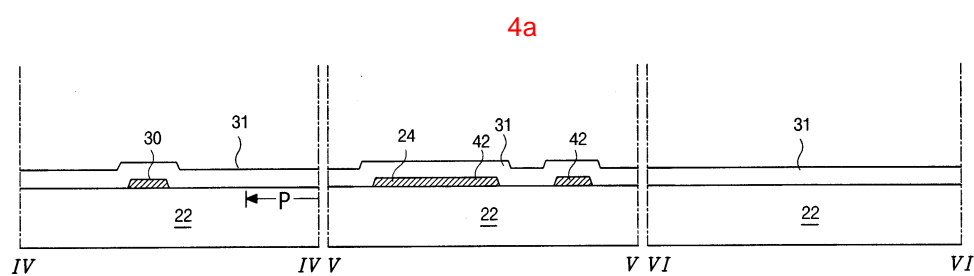
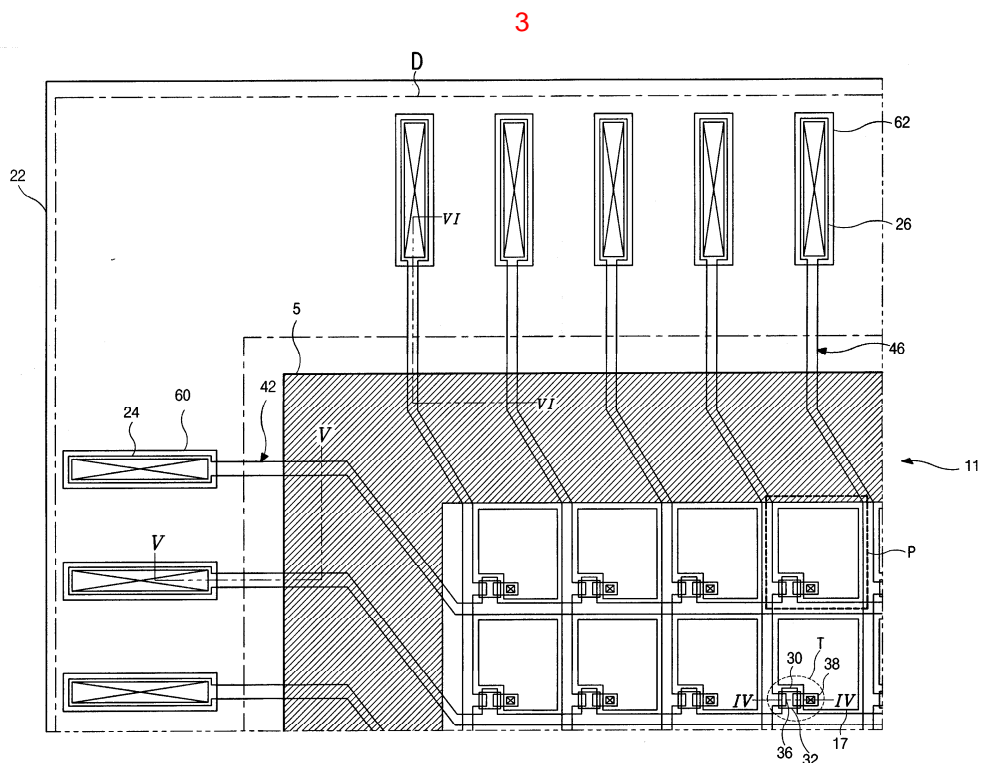
18 20. 19 , 1 2 -
- (ITO) - - (IZO)

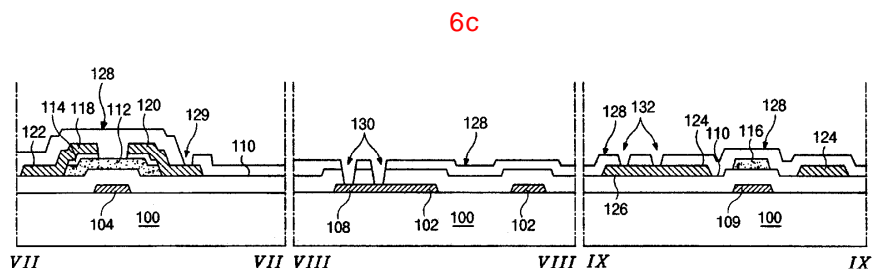
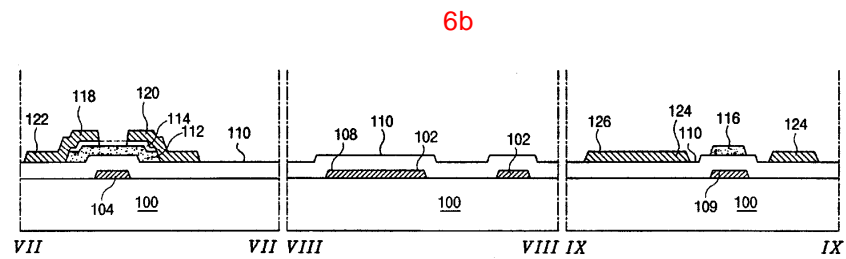
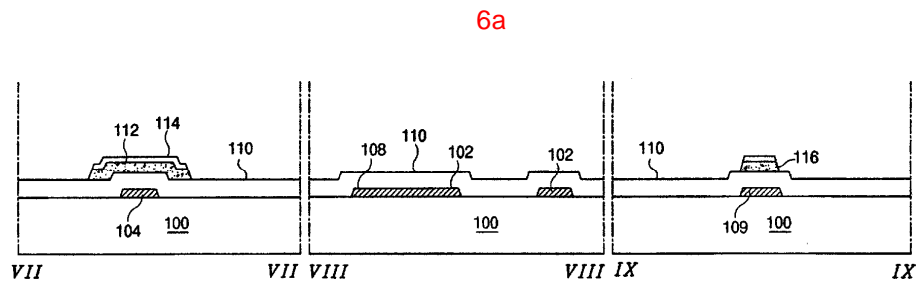
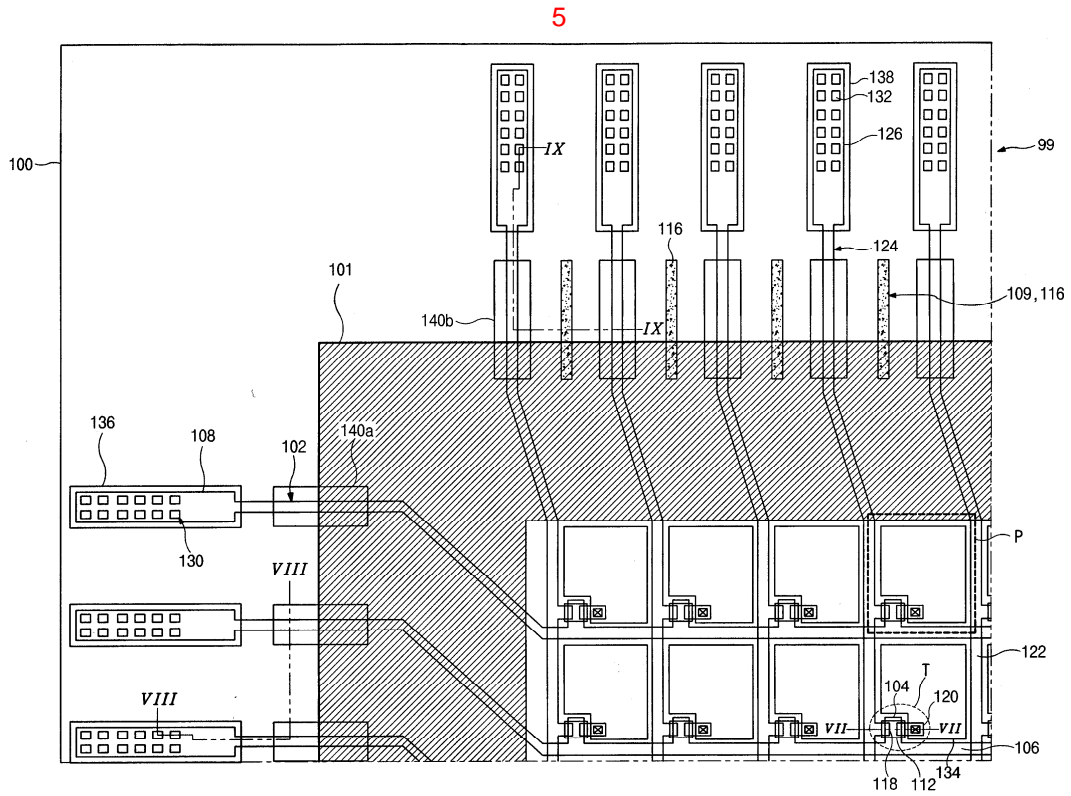
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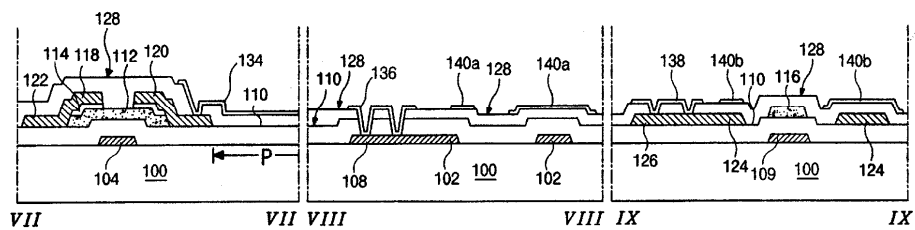
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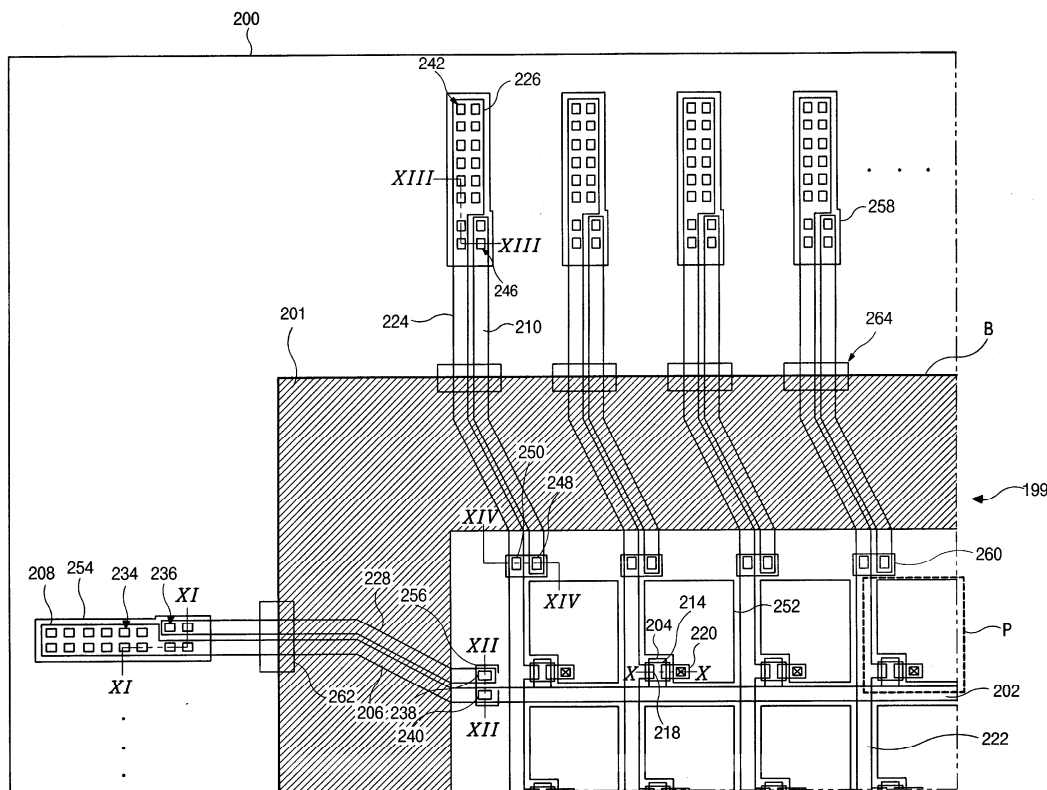




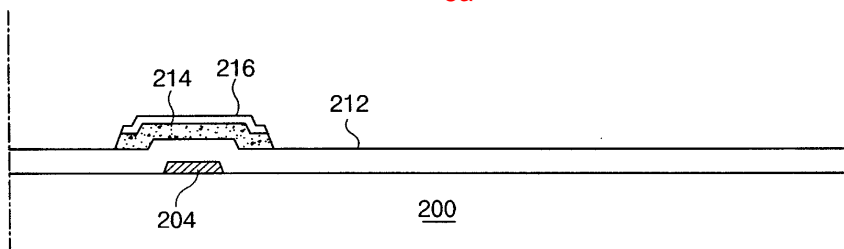
6d



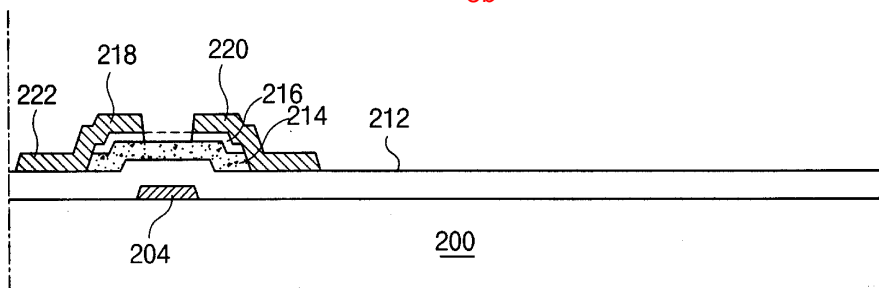
7



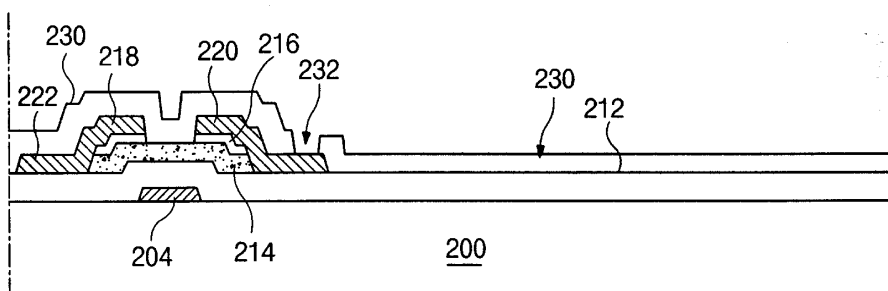
8a



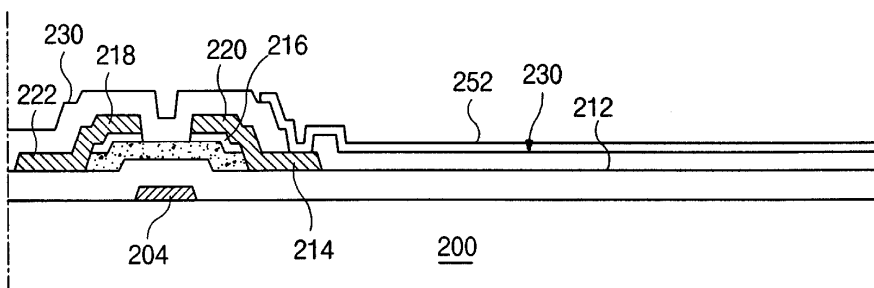
8b



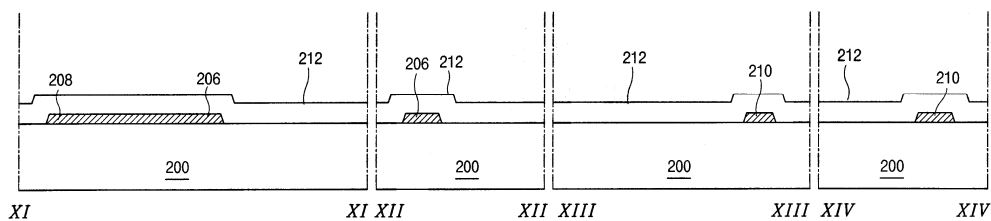
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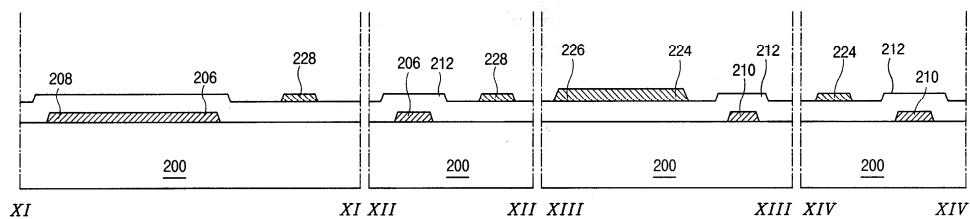
8d



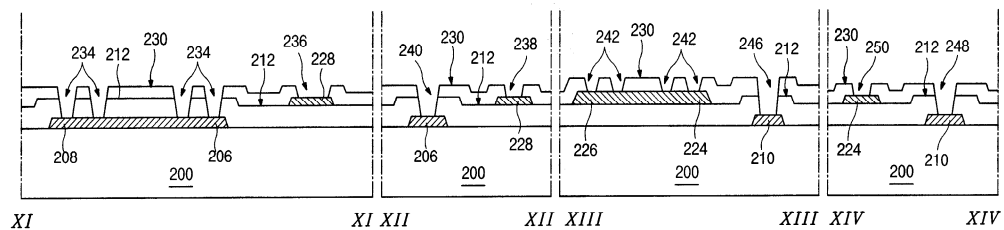
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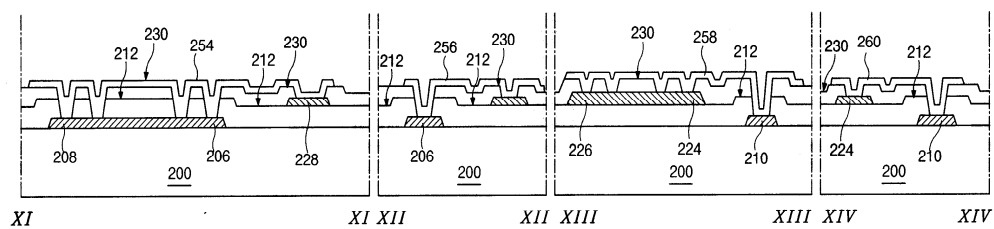
9b



9c



9d



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	KR100450701B1	公开(公告)日	2004-10-01
申请号	KR1020010087518	申请日	2001-12-28
[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	PARK HYUNTAK 박현탁 LEE CHOONGUN 이충언		
发明人	박현탁 이충언		
IPC分类号	G02F1/1333 G02F1/1345		
CPC分类号	G02F1/133351 G02F1/1345 G02F1/13458		
代理人(译)	贞媛KI		
其他公开文献	KR1020030057141A		
外部链接	Espacenet		

摘要(译)

一种用于液晶显示装置的阵列基板，包括基板，栅极线和基板上的栅极连接线。栅极连接线从栅极线延伸。数据线和数据链接线跨越栅极线和栅极链接线。数据线和栅极线的交叉限定了像素区域。数据链接线从数据线扩展。薄膜晶体管连接到栅极线和数据线。虚设图案设置在相邻的数据连接线之间，像素电极设置在像素区域处。

