

2002 - 0076449
2002 10 11

(54)

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1

2 1 -

3

4 3 -

5a 5f

6 2

7a 7e 2

8 3

9 8 -

10a 10f 3

11 4

(flat panel display) 가

(liquid crystal display)가 가

가

가

가

pacitor) 가 가 (storage capacitor) , (liquid crystal ca
, 가
가 .
가 , n - 1 , n
(storage on common)
(storage on gate) (previous gate) .
1 2 .
1 , 2 1 - .
1 2 , (10) 가 (21) (21)
(22) 1 (25) .
(21) (22) 1 (25) (30)
(22) (30) (41) (51, 52)
(61) (22) (62, 63),
1 (25) 2 (65) (61)
(21) , 2 (65) 1 (25)
(61) (62, 63), 2 (65) (70)
(70) (63) 2 (65) 1 2 (71, 72) 가 .
(70) (21) , 1 2 (71, 72) (81) (63) 2 (81)
(65)
가 ,
가 (ΔV_p ; voltage drop) .
(fer
roelectric liquid crystal) 가 가 , 가
가 가 (ΔV_p) 가 , 가
가 가 ,
가 가 .

가

1

2

1

2

가

가

가

가

가

3 , 4 3 -

3 4 , (110) 가
 (121) (121) (122) (122)
 (121) (122) (121) .
 (121) (122) (SiN_x) (SiO₂)
 (130) .
 (122) (130) (141)
 (151, 152) .
 , (151, 152) (161)
 (162, 163) (161) (121)
 (162, 163) (122) ((122)
 (161) (162, 163) (17
 0)
 (170) , (121) (200)
 , (200)
 (180) (170) (163) 1 (180)
 (170) (130) (121) (200) (181) 가 ,
 2) 가 . 2 (18

(180) (191) (192) .
 (191) (121) (200) , 1 (181)
 (163) (200) . (192)
 2 (182) 2 (182) (200) (121)
 , (121) 가 (200) .

(121) , 가 (191) (200) , (200) (191)
 , (200) (200) , (200)
 , .

5a 5f , 3 -

5a , (110) (121)
 (122) .

가

(122) (Cu)

5b (130)

(141) (153)

5c (162, 163) (162, 163) (153)

(151, 152) (162, 163)

5d (SiNx) (benzocyclobutene)

(acryl) (170) (170)

(200) (200) (121)

(indium - tin - oxide ; ITO) (indium - zinc - o

xide ; IZO)

5e (180)

(170) (130) (163) 1 (181)

(200) (121) 2 (182)

5f ITO IZO (191)

(192) (191) 1 (181) (163)

(121) 2 (182) (192) 2 (182)

2 (182) (200) (121) (121) 가

(200) (200) (181)

가

2 2 6

2 1 가

6 (200) (121) (141) (151, 152)

(162, 163) (162, 163) 가 (141) (151, 152)

(162, 163) 가 (162, 163)

7e . 7a

7a , (110) (121) (122) ,
 (130) (140) (150)
 , (160) (sputtering) , (photo resist)(300)
 .

162, 163) (A) (400) , (6 162, 163) (C) (B)

162, 163) (400) A (410) , C 가
 (420) , C
 , C (420) (400) , C

7b (7a 300) 가 (310,
 320) (7a A) 1
 (310) 가 2 (320) , (7a C) 1 (310)
 300) 가 2 (320) , (7a B) (7a

7c (310, 320) (165)
 (155) (141) , (7b 160)
 (7b 150) (7b 140) , (

160)

7d 2 (320) , 2 (320)
 , 1 (310) 1 (310) 가 .

7e (7d 165) (7d 15
 5) , (162, 163) (151, 152) ,
 (155) 가 (141) .
 , 1 (310) .
 , 1 (7e 162, 163) ,
 , 2 ,
 가 ,

,
(cell)
,
(seal pattern)
,
가
,
가 (misalign)
,
,
,
3 8 9
8 3 , 9 8 -
8 9 (110) 가
(121) (121) (122)
(121) (122) (
130)
(122) (130) (141)
(151, 152)
(162, 163) (161) (161)
(122) (122) (121)
(161) (162, 163) (210)가 (210)
(R), (G), (B) (121) (161) (121)
(210) (161)
(210) (121) (200)
(200) (180) (180) (210)
(163) 1 (181) 가 (210) (130)
(121) (200) 2 (182) 가
(180) (191) (192)
(191) (121) (200) 1 (181)
(163) (200) (192) 2
(182) 2 (182) (200) (121)
(121) 가 (200)

(161) (210) (161)

(210)

3 10a 10f 10a 10f

8 - 3 1

10a (110) (121)

(122)

10b (130)

22) (141) (153) (1

10c (()

(162, 163) (162, 163) (10b

153) (151, 152)

10d (210) (121)

(210) (200) (200)

10e (200) (180) (210)

(130) (163) 1 (181) (2

00) (121) 2 (182) (180)

가

200

10f ITO IZO (191)

(192) (191) 1 (181) (163)

(121) (200) (192) 2 (182)

(200) (121) 가 (200)

3

가

3 2 가

4 11

11 , 4 (210)가 ,
 (200) (200) (191)
 (192) (121) , (191)
 . , (141) (162, 163)
 (141) (162, 163) (162, 163)
 가 .

4 3 ,
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 , 4 가
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 , 가 .

가 .

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(57)

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1 2 ,
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7.

6 ,
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8.

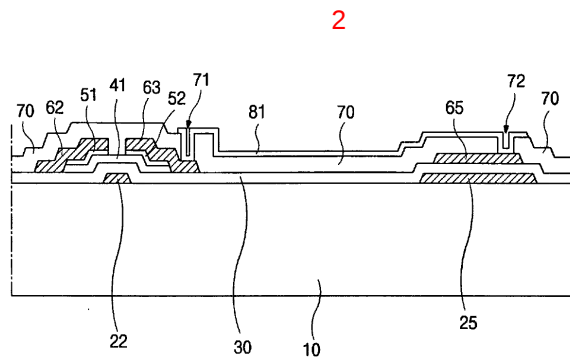
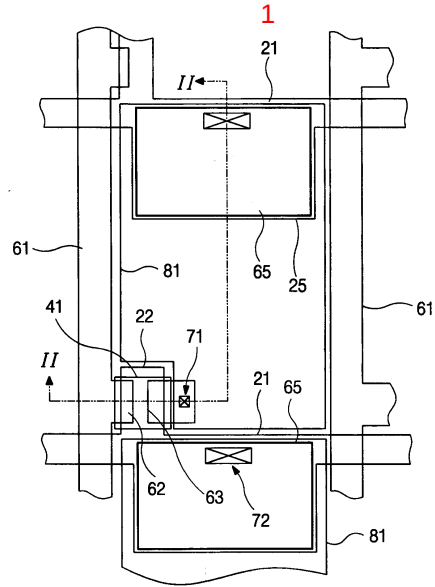
6 7 ,
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9.

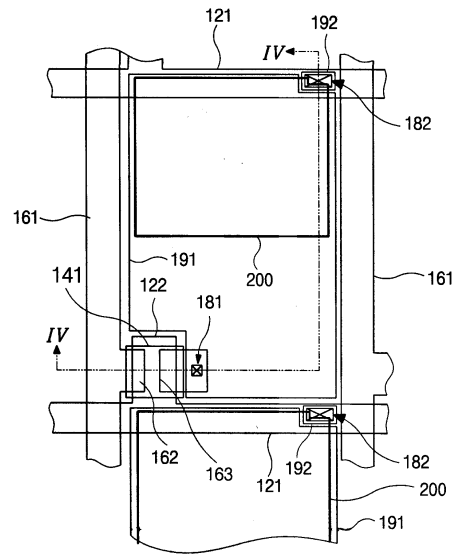
8 ,
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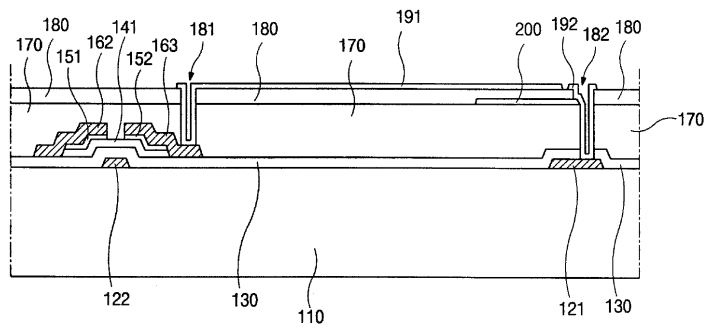
8 ,
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 가
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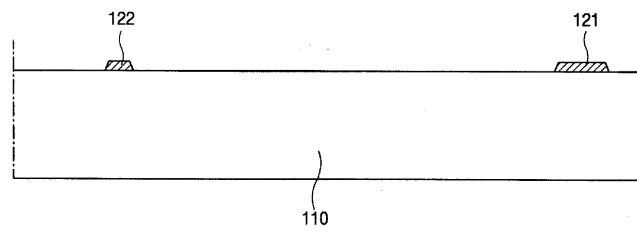
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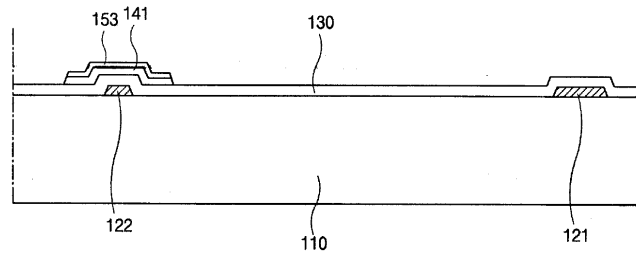
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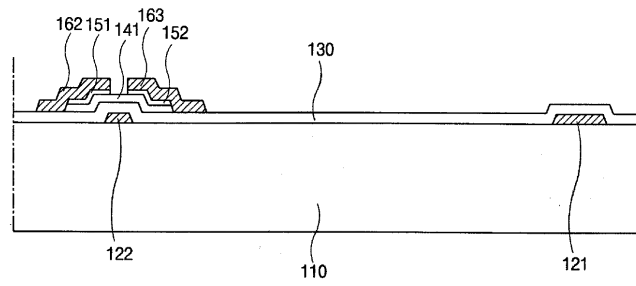
5a



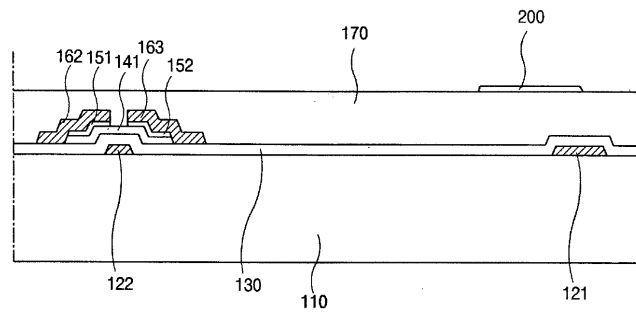
5b



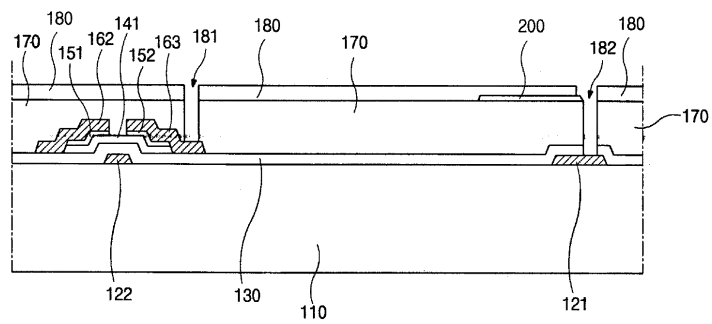
5c



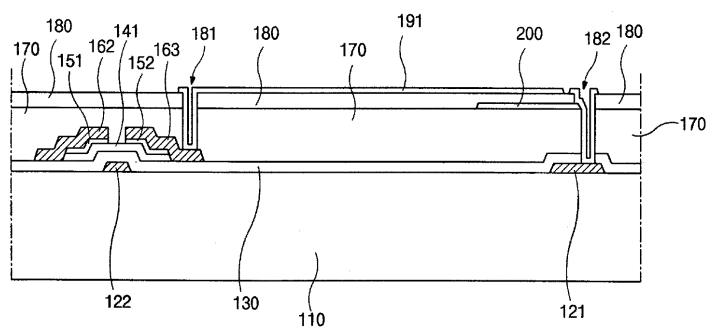
5d



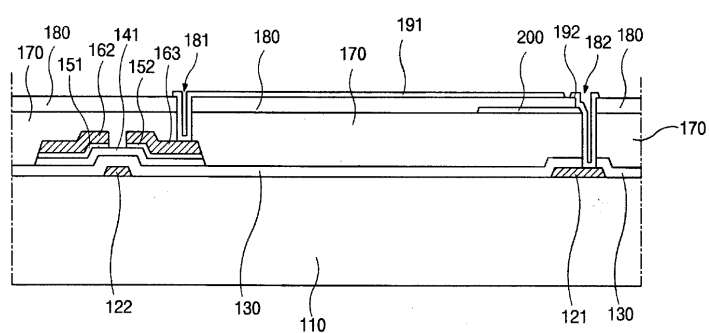
5e



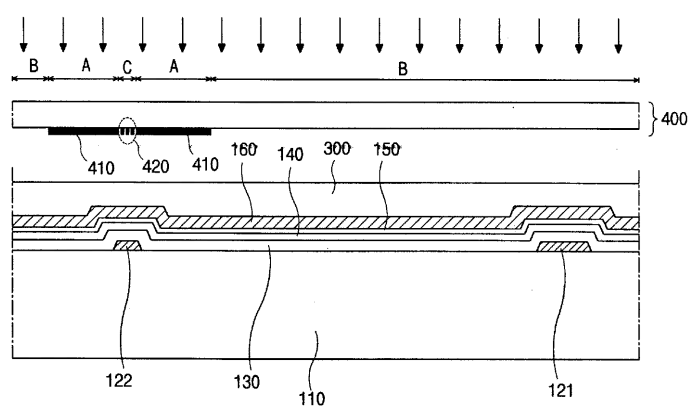
5f



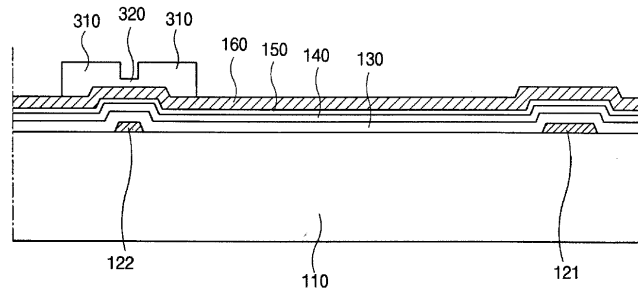
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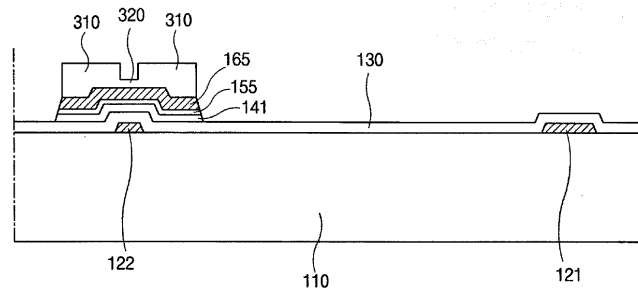
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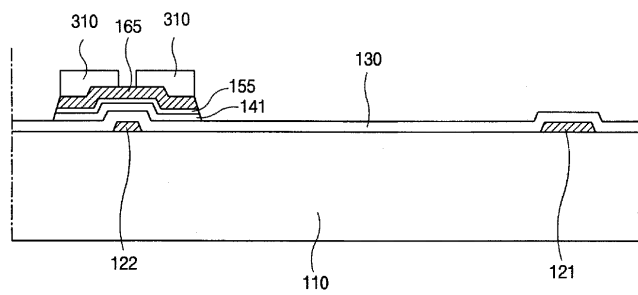
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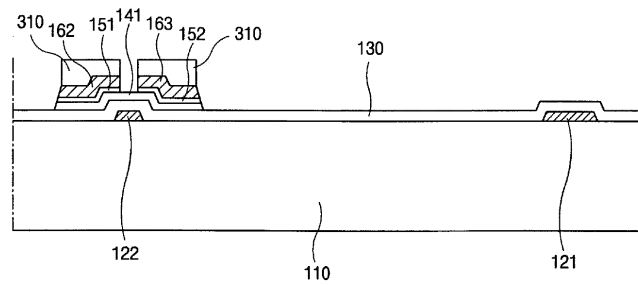
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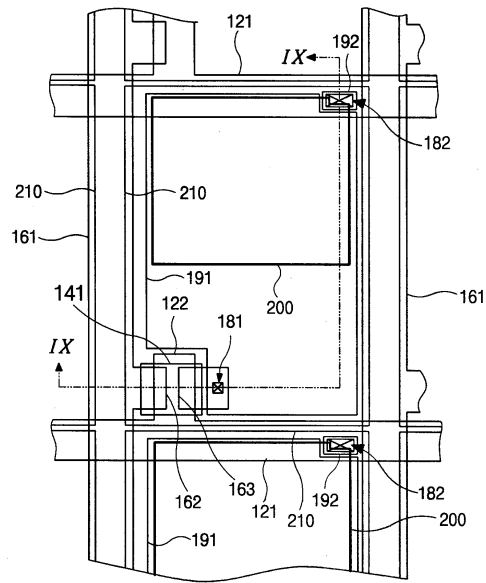
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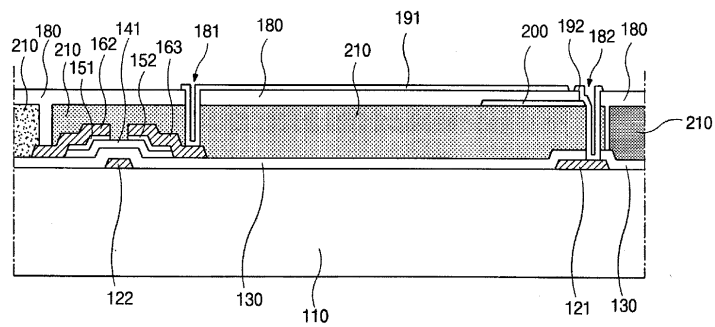
7e



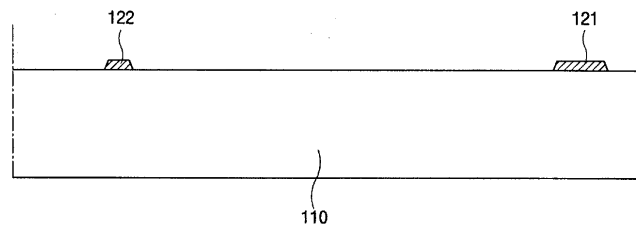
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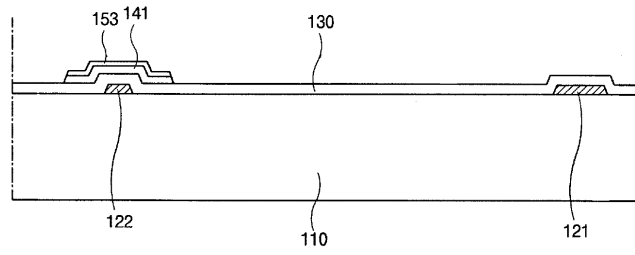
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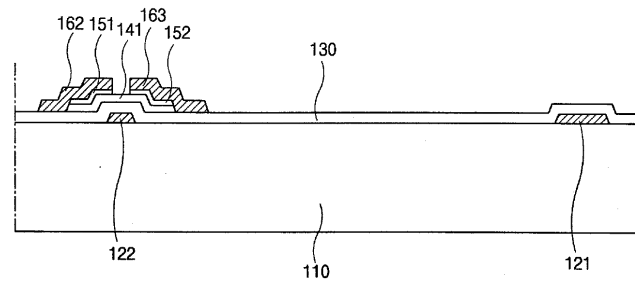
10a



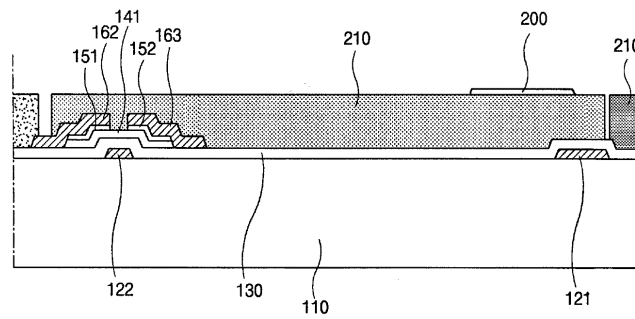
10b



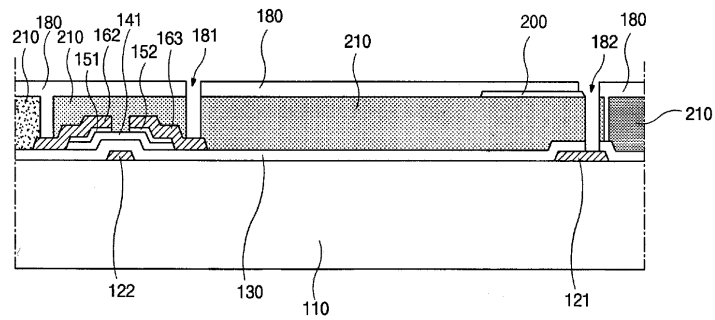
10c



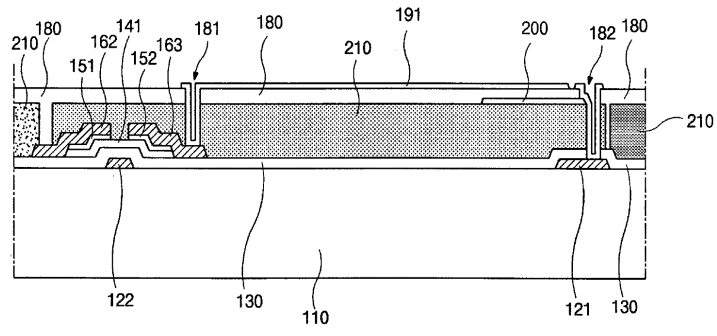
10d



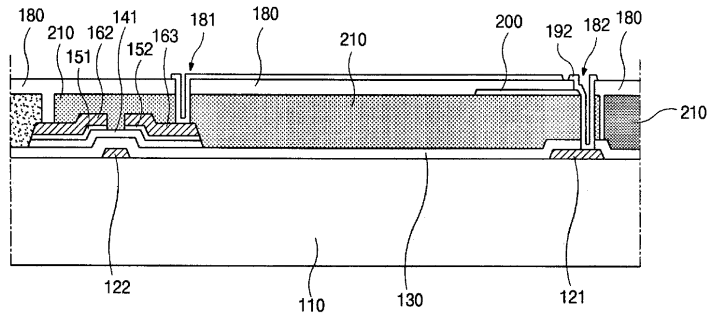
10e



10f



11



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	KR1020020076449A	公开(公告)日	2002-10-11
申请号	KR1020010016296	申请日	2001-03-28
[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	HWANG KWANG JO 황광조 KIM WOOHYUN 김우현		
发明人	황광조 김우현		
IPC分类号	G02F1/136		
代理人(译)	贞媛KI		
其他公开文献	KR100413512B1		
外部链接	Espacenet		

摘要(译)

本发明涉及一种用于液晶显示器的阵列基板及其制造方法。一种用于液晶显示装置的阵列基板假定为包括用于保持施加到液晶电容器，直到下一个信号，当使用铁电液晶或存储所需要的高容量的存储电容器作为用于液晶显示装置的阵列基板的电压的存储电容器从阵列基板的大型高分辨率的液晶显示装置的面积比被电容器占据，所述电容器电极的面积大大增加电容器的电容，电容器电极是产生一个问题在于，在非透明材料制成的开口率降低。根据本发明，可以通过形成的透明导电材料的存储电容器的电极，以增加电容器电极的面积是孔径比，同时仍增加电容器减小蓄电容量来防止。另外，由于存储电容器的容量增加，所以可以降低液晶电容器中的电压降以改善图像质量。在另一方面，在形成阵列基板上形成滤色器的情况下，可以减少步骤的数目，以形成更能够提高，有源层和源电极和漏电极，通过一个单一的光刻工艺的孔径比。

1 - 3 指数方面 存储电容，电压降，孔径比，彩色滤光片，4个掩模

