



3a

, , ,

1a

1b 1a A - A'

2 가

3a 3b 1

4a 4c 2

5a 5b 3

6a 6b 4

\*

20 : 21 :

21a : 21c :

22 : 23 :

24 : 24a :

24b : 25 :

26 : 27 : 1

29 :

(LCD ; Liquid Crystal Display Device)

, 가 , (contrast) 가  
가 , CRT(cathode ray tube)

- (Level - shift)  
가 ,

가 , .

(storage capacitor)

(storage on common) 가 (storage on gate) ,  
(n - 1)

n .

, 가

(dot - inversion), (column - inversion)

1a , 1b 1a A - A' , 2  
가 .

1a 1b ,

(photolithography) , (10) (Al) Al (11)  
(11c) (11), (11a) (11)

(11c) .

(11) (12) , (12)  
(11a) (13) .

(13) Al Al (13) / (14a/  
(11) (14) , (14c) .  
14b)) , (11c)

, (12), (11) (13) / (14) (14a/14b) , (11a),  
 : (a - Si TFT)가  
 :  
 , (11c), (12), (14c)  
 .  
 , 2 (G) / (S/D) (capacitance) Cgs가  
 , 가 (voltage offset), V  
 . (flicker), (image sticking),  
 , V .  
 , 가 가 , , 가  
 가 . ,  
 , 2 D.L 가 , G.L 가 가  
 , Clc (Vcom) , Cst  
 (Vst) .  
 , (14) BCB(Benzo - cyclo Butene) (15)  
 , (14c) (15) 가 1 (17)  
 (14c) 가 2 (18) .  
 , 1, 2 (17,18) (14b) (14c) IT  
 O .  
 , ITO , R,G,B(red, green, blue)  
 μm .  
 , 가  
 가 .  
 , 가 가 .  
 , voltage drop)가 , 가 (off - current) (holding ratio)가 (

가

가

1

3a 3b 1

1

ITO

3a 3b (20) Al, Cu, W, Mo, Ti, Al  
(sputtering) (photolithography)  
(21) (21) (21a) (21) (21)

c) (21c) (21) ITO (29) (29)

(29) (21c)

(29) (22) (SiNx) (21a) (SiOx) (22)

(23)

(23) Al, Cu, W, Mo, Ti, Al (24) (24) /  
(24a/24b)

(21) (24) (24a/24b)

(21a), (22), (23), / (24a/24b)

(24) BCB, (25) (25) (24b) ITO(Indium Ti

(24b) (27) (27) (24b) ITO(Indium Ti

n Oxide) (26)

(29) (26)

(29)

2

4a 4c 2

2

1

4a 4b (30) (sp

uttering) (31) (photolithography) (31) ,

(31a)

(31) (31a) (SiNx) (SiOx)

(32) 가 (32) (31a) (33)

(33) (34) , (34) / (34a/34b)

(31) (31a), (31) (32), (34) (33), / (34a/34b)

(34) (38) , (38) ITO

(39) (39)

(39), (34) / (34a/34b) BCB,

(35) (35)

ITO(Indium Tin Oxide) (34b) (37) , (37)

(36)

(39) (36)

(39)

, (30) (39) (39) , 4c  
 (32) (35) . ,  
 3  
 5a 5b 3  
 3 , 가  
 , ITO , ITO  
 5a 5b , (50) (sput  
 tering) (photolithography) (51) , (51) , (51c)  
 (51) (51a) , (51) (51c)  
 , (51c) (59)  
 , (59) (51c)  
 , (51c)  
 , (59) (SiNx) (SiOx) (52)  
 (52) (51a) (52)  
 (53)  
 , (53)  
 (51) (54) , (54) (53)  
 (54a) , (53) (54a) (54b)  
 , (52) ITO (59b) (59b)  
 59a) (59b) BCB, (55)  
 (54b) 1 (57) (59b) (55) 2 (58)  
 1, 2 (57,58) (54b) (59b) ITO(Indium Tin  
 Oxide) (56)

(51c) (59b) (59a) (59a,59b) (56)

(52)

4

6a 6b 4

4 가 가

3

6a 6b (61) (61) (60) (61a)

69a) (61) ITO (69a) (

(69a) (62) (SiNx) (61a) (SiOx) (62)

(63)

(64) (63) (64) (63) (61) (64a)

(64b)

69a) (49) ITO (61) (

(69b) (69b) (69a)

(69b) BCB, (64b) 1

(67) (65) (65) (68) 1, 2 (67,68)

(64b) (69b) 2 ITO(Indium Tin Oxide) (66)

(69a,69b) (6

2)

가 .

가

가 .

(57)

1.

;

;

1 ;

1 ;

;

;

;

, / ;

가 1 ;

1

2.

1 , , BCB

3.

1 , / , 2 , 1  
가 2 2

4.

3 , 1 2 (ITO) (IT  
ZO)

5.

, ;  
;  
, ;  
;  
;

, / ;  
가 1 ;  
1

6.

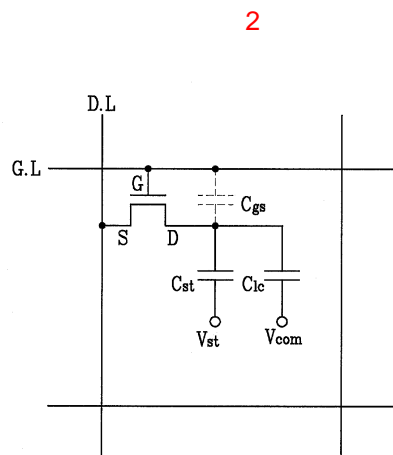
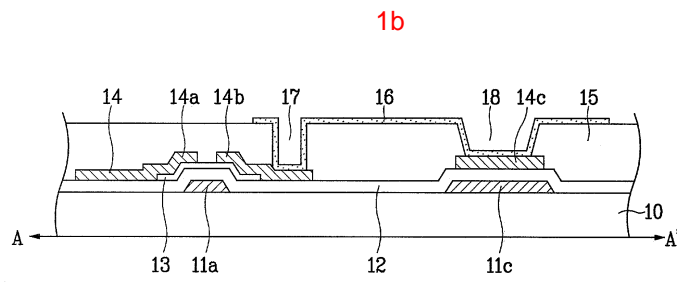
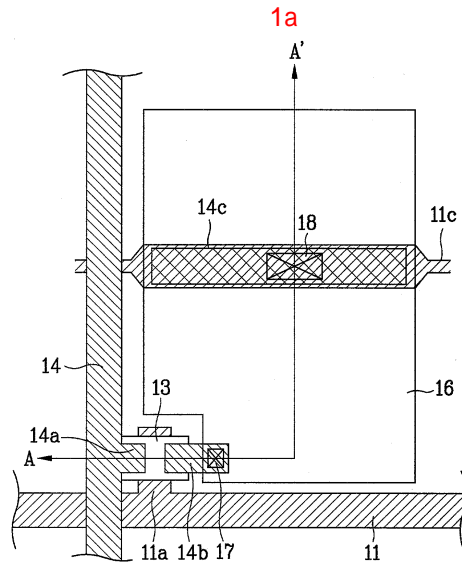
5 , , BCB

7.

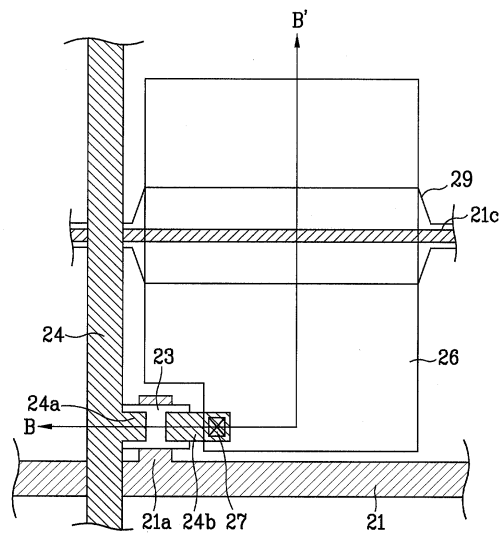
5 , , 2 가

8.

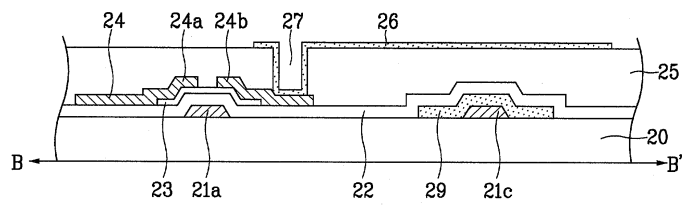
7 (ITZO) (ITO)



3a

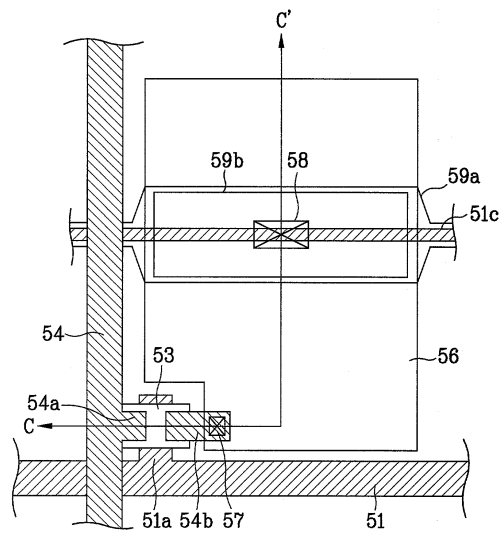


3b

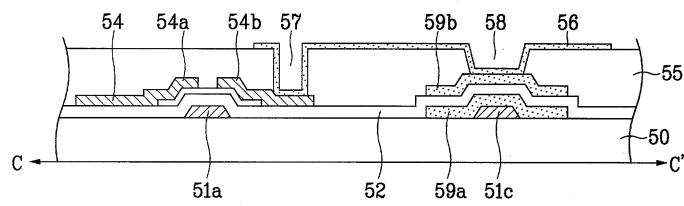




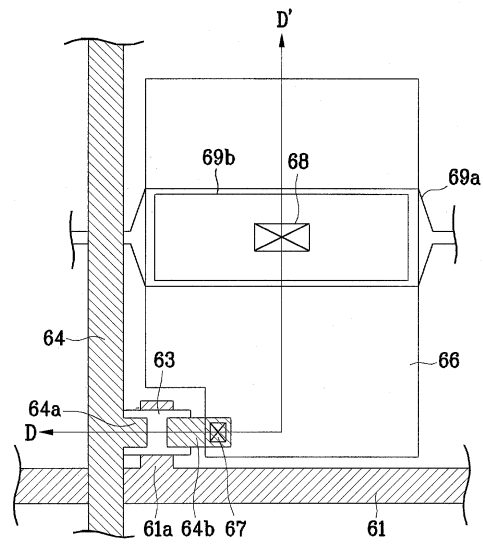
5a



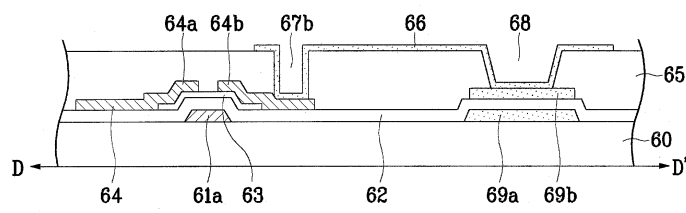
5b



6a



6b



专利名称(译)	一种用于液晶显示器的阵列基板		
公开(公告)号	<a href="#">KR1020030004782A</a>	公开(公告)日	2003-01-15
申请号	KR1020010040463	申请日	2001-07-06
[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 IKSOO 김익수 CHAE GEESUNG 채기성		
发明人	김익수 채기성		
IPC分类号	G02F1/1362 G02F1/133		
CPC分类号	G02F1/136213 G02F1/136227		
代理人(译)	金勇 新昌		
其他公开文献	KR100437825B1		
外部链接	<a href="#">Espacenet</a>		

摘要(译)

对于液晶显示器的阵列基板，通过组织大容量存储电容器并不降低孔径比，尤其是提高图像质量，本发明的液晶显示器用阵列基板包括：存储电容器的第一电极，覆盖栅极布线的栅极绝缘层，以及存储电容器和栅电极的第一电极，半导体层，栅极布线 and 垂直布置的数据线连接到源电极和漏电极，形成在数据线上的绝缘层，源/漏电极和栅极绝缘层，第一接触孔和像素电极通过第一接触孔连接到上介质层到由漏电极组成的漏电极栅电极从形成在基板上的栅极布线和栅极布线，形成为不透明金属的公共线和导电材料分开。形成为不透明金属的公共线形成为与栅极布线类似的材料，并且平行地布置到栅极布线。导电材料在公共线上是公平的。形成半导体层以便与栅极绝缘层上的栅电极重叠。垂直布置的栅极布线和数据线连接到源电极，并且漏电极布置成在上述半导体层中具有空间，并且源电极。第一接触孔去除绝缘层，从而暴露并形成漏电极的一部分。高分辨率，孔径比，大容量存储电容，累积容量方法。

