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(43)2002 - 0077172
2002 10 11(21) 10 - 2002 - 0016953
(22) 2002 03 28

(30) JP - P - 2001 - 00096727 2001 03 29 (JP)

(71) 가 가
5 7 1(72)
5 - 7 - 1 가 가
5 - 7 - 1 가 가
5 - 7 - 1 가 가

(74)

:

(54)

CF TFT

1 1 .

2 1 TFT .

3 2 C - C .

4 2 A - A .

5 2 B - B .

6 A D , 2 C - C .

7 .

8 7 E - E .

9

10

11 CF TFT .

12 11 TFT .

13 A F 12 D - D , .

♠

♠

1 : 2 :

3 : TFT 4 :

5 : 6 :

7 : 8 :

9 : 10 :

ransistor) , CF TFT(color filter on thin film t

TFT
TFT

가

, TFT

, CF TFT (TFT) 가 . CF TFT , . CF TF
T , 가 TFT , ,
가 . , ,

11 CF TFT

12 11

TFT

11 , (81;) , (82;
) (81) ,
(83; TFT)가 . TFT(83) (84) (81) (85)
(84) , (86) (87) . (87) (88)
(wiring conductor) , (88) (89)
(90) .

, 12 , (102) TFT(83), (82) (81)

13 A F , . 13 A F 12 D - D

, 13 A , (91) , (Al), (Mo),
(Cr) 100 400nm .
, (81;)

100 CVD 200nm (81) (93) (93) (93)
 , , 100 400nm (Al), (Mo), (Cr)
 , (87) , 100 200nm (95)

가 가 1.5 μ m
 (95) 2 80
 (TMAH) (96)가
 (87) (90) (89)
 가 60 230 (96)가
 (96)

가 (100)
 1.5 μ m

13 B (101) , , (81) (96)
 (101) , , ,
 (101)가 , (100)

13 C (101) , , (100)
 (102) , (91)
 , (91) 13 C Y , 13 C X
 , (96) (102) ,
 가 (95) , (102) 60
 230 (102) , (95)

13 D 가 2.5 μ m , , 60
 가 (89) , ,
 230 , (98)

13 E 가 , (95) (89)
 , (89) , (89) (95)
 가 , (87) (90)

13 F , (ITO)
 (89) (87) (98)
 (90) (87) (90)

(87)

(90)

TFT

, TFT

2000 - 231123

가

가

가

가

가

11,

12

13

A

F

가

가

가

20

20%

2000 - 231123

CF

TFT

가

CF TFT

CF TFT

CF TFT

CF TFT

가 ,

가 ,

가

가 ,

가 ,

1 1 1
(1;) (2;
) (1) ((3I; TFT)가 . TFT(3) (4) (1) (5) (2) ,
(6) (7) (7) (8;)
(9) (10) (7) (10) (7) (8)
(8) 가 .
, 가 , 가 , 가 ,
, 가 가 .
, (7) 가 (8) 가
(7) (8) 가
(10) (2) .
2 1 TFT
3 2 C - C .
2 3 (11) , (1; (1)
) (13) (1) (7) 가 가 ((13) (13) , 가 가 ()
1) (7) .
, (15), (16) (17) (17) , (10)
(10) (17), (16) (15) (9)
(7) .
4 2 A - A . 2 4 (3; T
FT) (11) (4) (11) , (13)
(4) (12) (4) (12)
(13) (5) (6) (12)
(12) (5) (6) (12)
TFT(3)가 . (15) TFT(3) . , TF
T(3) (16) , (14) (14) , 1 (18)
, 1 (18) 2 (19) .
5 2 B - B . 2 5 (2)
(11) (11) (2) (20)가 ,
(11) (2) (20) (16)가 .
, (2) (14) . (14) , 1 (18)

, 2 (19) 1 (18) .

2 5 , , (2) (1;)
TFT .

6 A D , . 6 A D
2 C - C , .

, 6 A (11) , (Al),
(Mo), (Cr) 100 400nm .
(1;)

CVD (1) (13) . (13) (13)
100 200nm , (13) , (Al), (Mo), (C
r) 100 400nm .
(7) (15)
100 200nm .

, 6 B , 가
가 (15) .
1.5 μ m , 2 80
(TMAH)
(16)가 (7) (10)
(9) 가 (9)
, 60 60 (16)가 .

, (14) (16) , (14) 6 B D , (14) C -
C ,

, 6 C , , 가
가 2.5 μ m , (9) , 가
(17) , 60 230

6 D , , 가
, (9) (15)
, C - C (16) (15)
(9) , (9) (15)

, , (ITO)
 (9) (7) (17)
 (10) 3 가
 가
 ITO 가 100nm
 TFT , TFT
 가
 7 8 7 E-E
 7 8
 TFT (30) (31) 8 , TFT (30)
 (31) (31)
 TFT (30) , (33) 7
 (33) 가 (34)가 (48)
 가 (34) (34R), (34G), (34B)
 TFT (30) (31) (30) (31) 가
 (35) TFT (30)
 (H) (36)
 (V) (37)가
 (H) (36) (V) (31)
 (37)가 (35) (32) TFT (30) (31)
 (38) (38)가 (39) TFT (30) (31)
 8 , TFT (30) (40) (41)
 (40) (41) (42) (42)
 (41) (40) (42) (42)
 (43) (44)
 (45) (42), (43), (44)
 TFT TFT가

(45) , (33) TFT , V (37)
 (33a) , (33a)
 (46R), (46B), ()가

(47) (46) (45) (48)
 (47) (48) ITO ,

TFT가 , (44) (48)
 (lead electrode) (44) (48)
 (47) (45) () ()

TFT (30) (31) (32) , (30) (31)
 (50)가 (48) TFT (30) (48)
 (49) , TFT (30) (49)
 (31) , (51)

(31) (51) (31) (52)
 (52), (48),

, TFT (30) (31) , , 8 TFT (30) (31)
 , TFT (53) (54)

가

9 , 9
 , 6.3 (72) 370m
 m x 470mm (71) 가 , 9
 (71) (71) 4 (72) (71) 2
 (72) , 8 (72) (71)
 (72) 가 ,
 (71)

10 ,
 , 10

TFT

10 , (72) (71)
 (71) , (71)
 10 (Y)

9

(71)

가

10

0 5

10

(73)

(73)

가

(73)

1

2

가

가

가

(57)

1.

2.

1

3.

2 ,
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4.

1 ,

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4 ,

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1 ,

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가

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9 ,

13.

12 ,

14.

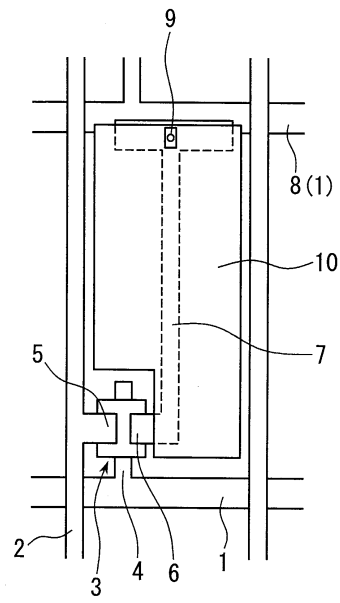
9 ,

15.

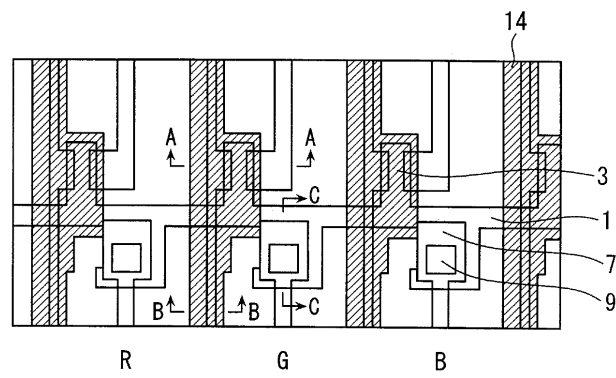
9 ,

가 가 ,

1

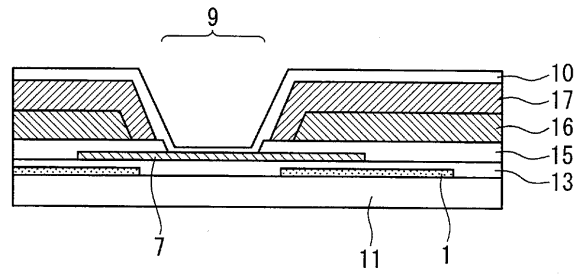


2



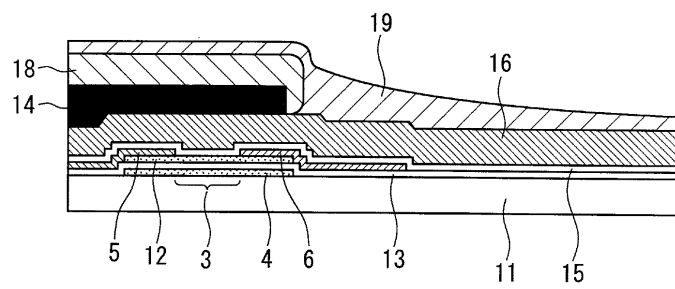
3

(C-C선을 따른 단면도)



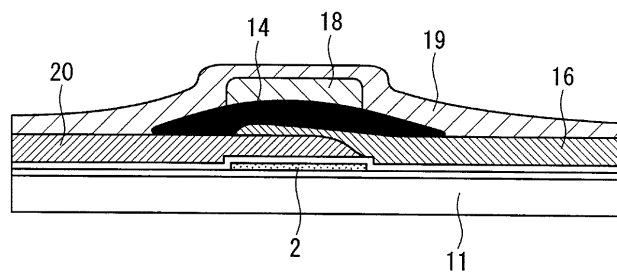
4

(A-A선을 따른 단면도)

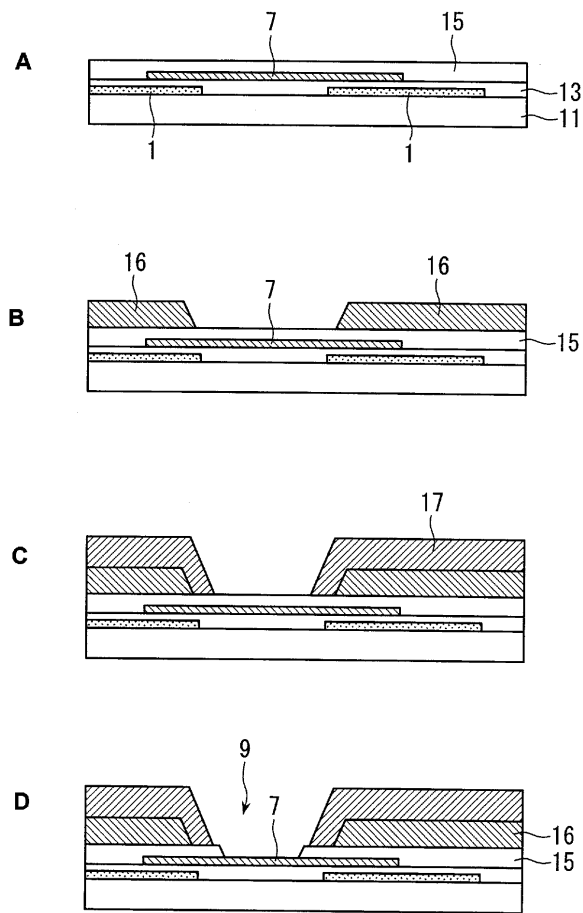


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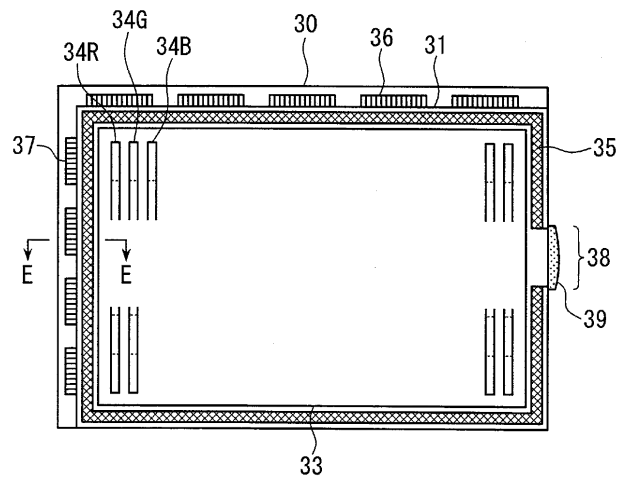
(B-B선을 따른 단면도)



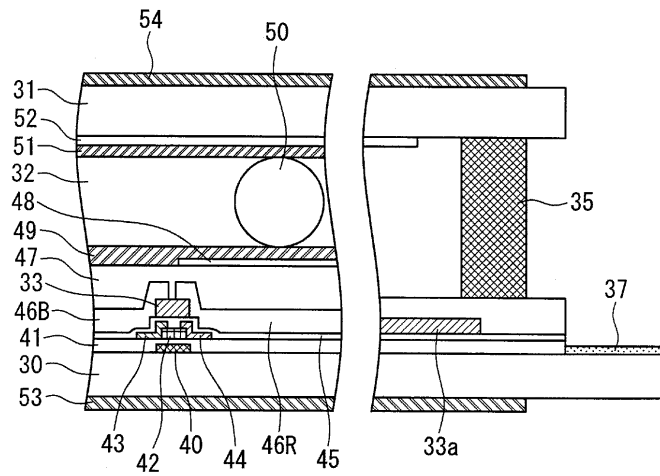
6



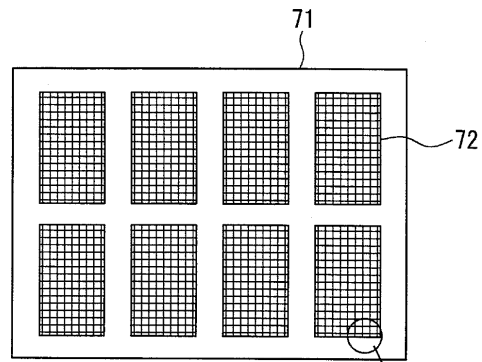
7



8

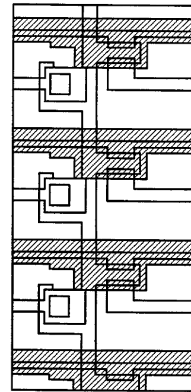


9

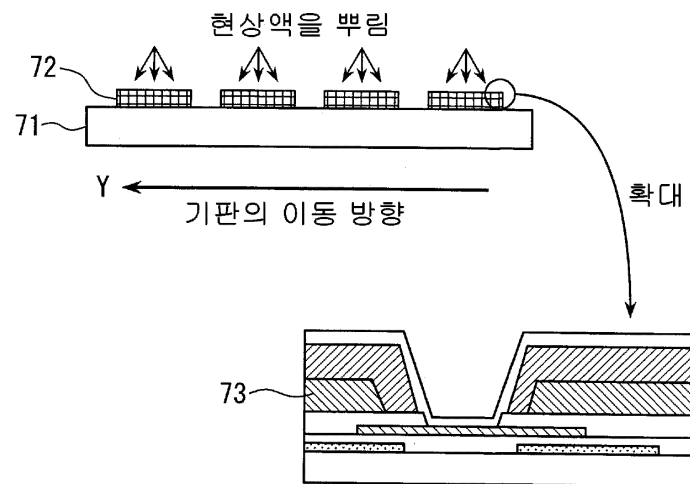


확대

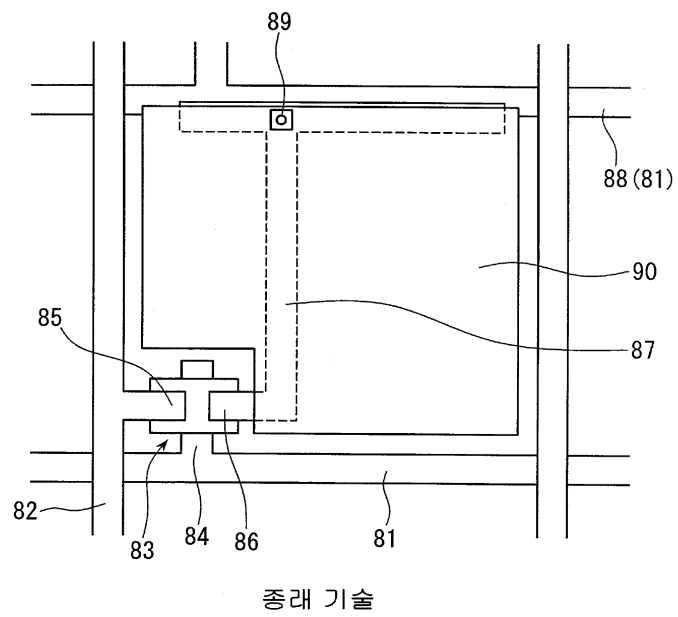
LCD 패널 내의
픽셀의 배치



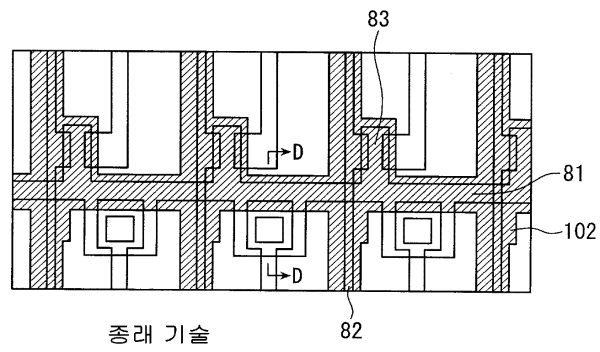
10



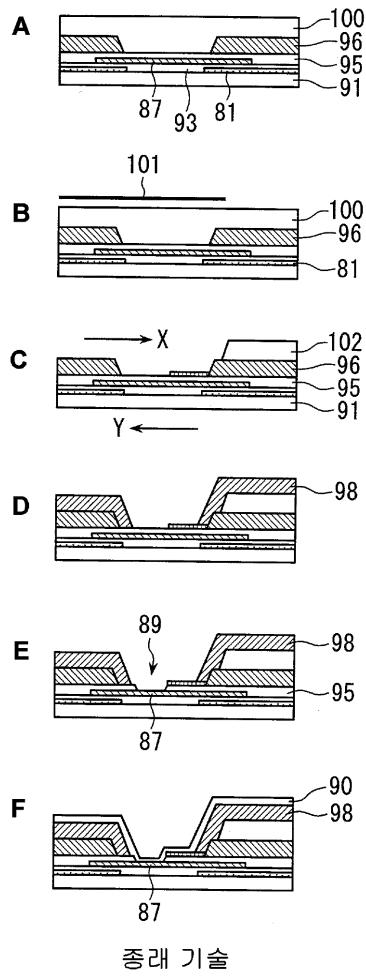
11



12



13



专利名称(译)	在具有减少的点缺陷的薄膜晶体管上的滤色器型液晶显示器		
公开(公告)号	KR1020020077172A	公开(公告)日	2002-10-11
申请号	KR1020020016953	申请日	2002-03-28
[标]申请(专利权)人(译)	NEC液晶技术株式会社		
申请(专利权)人(译)	日元号技术可否让这个夏		
当前申请(专利权)人(译)	日元号技术可否让这个夏		
[标]发明人	OKAMOTO MAMORU 오카모토마모루 SAKAMOTO MICHIAKI 사카모토미치아키 HIDEHIRA MASANOBU 히데히라마사노부		
发明人	오카모토마모루 사카모토미치아키 히데히라마사노부		
IPC分类号	G02F1/136 G02F1/1335 G02F1/1362 G02F1/1368		
CPC分类号	G02F1/136209 G02F1/136227		
代理人(译)	用最甜		
优先权	2001096727 2001-03-29 JP		
其他公开文献	KR100493481B1		
外部链接	Espacenet		

摘要(译)

在CF-on-TFT型液晶显示器及其制造方法中，液晶显示器包括多条平行扫描线，与扫描线相交的多条平行数据线，布置在扫描线之一和数据线之一之间的交叉点附近的薄膜晶体管和薄膜。以及像素电极，每个像素电极耦合到所述晶体管之一并且布置成矩阵。遮光膜形成在至少包括薄膜晶体管的区域上，除了阻碍用于使遮光膜图案化的显影剂的流动的部分之外。在一个实施例中，遮光膜可以沿着数据线形成，或者可以沿着扫描线部分地形成，除了相邻数据线之间的扫描线的每个部分的一部分之外。图1 索引词 液晶显示器，TFT，彩色滤光片，薄膜晶体管，钝化膜，光刻胶

