

(19)
(12)(KR)
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(43)2003 - 0030352
2003 04 18(21) 10 - 2001 - 0062308
(22) 2001 10 10(71) .
20

(72) LG B - 703403

(74)
:

(54)

， .

， (storage on gate) ， 2

2 .

， 2 가 가 ，

， 2 .

5e

1 ，

2 1 ，

3 , 4 - `

,

5a 5e 1

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6a 6e 5a 5e - ` ,

7 2 ,

8 7 - ` .

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100 : 126 :

114 : 115 :

117 : 128 :

130 : 139 :

143 :

(Liquid crystal display device) ,
(storage capacitor) .

, ,
(liquid crystal) .

, 1 .

1
, (6) (, ,)(8) (7)
(18) (5) , (P) (17)
(T) (22) , (5) (22)
(14) .
(22) , (T)가 (matrix type)
, 가 (13) (15) .
(P) (13) (15) (P)
(17) - - (indium - tin - oxide : ITO) .

가 (17) (14) (T)
(14)

(13) (T) 1
(15) (T) 2

가 , 가
(backlight)

2

film transistor)(T) (22) (P) (thin
(pixel electrode)(17) (storage capacitor)(C)

(T) (26) (28) (30) (active layer)(55)
(28) (15) (26) (15)
(P) (13)

(C) (storage on gate) (17) (14)
(13) / M/I/M(metal/insulator/metal)

(14) (14) (43) (13) (17)

3 4
3 , 4 3 -`

(15) (55b) (15)

(P) (13`) (15)
(14) (55c)

3 4 가 (C)
(13`) (55c) (55c) (14)

(M)

(C) 1 (13`) 2
(14) (55c)

(13`)

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2 ;
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 , 1 ; 1
 , 1 가 2
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 1 , 2
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, 5a 5e 6a 6e 1

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5a 5e 1
 , 6a 6e 5a 5e - `

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, 5a 6a , (100) (Al) (AlNd) ,
 1 (113) , (113)
 (126)

, (113) (126) , (Cr),
 (Mo) ,
 (C) 1 (113`)

, (113) (126) (100) 1 (1
 33)

(Al₂O₃) (SiO₂) (SiN_x)

(133) (155`) (156`)

5b 6b ,

.

2 (6a 155` ) ( 6a 156`)
 , (155) (156) (158 a,b,c) .
 , (158a,b,c)
 1 (158a) , 1 (158a) (126)
 2 (158b) , 1 (113`) 3
 (158c) .
 , 3 가 .
 , .
 (158c) , 3 (158c) (113)
 .
 , (158c) (113) 가 (C)
 , (158c) (113)
 , (158c) (113) , (158c) 가
 (113) , (158a,b,c) (113)
 , (158c) (113) .
 , .
 5c 6c 3 , .
 , (158a,b,c) (100) (Al), , (Cr),
 1 (W), (Sb), (Ti) (115) , (115) 2 ,
 (158a) (128) , (130) .
 , (C) 3 (158c) (114)
 .
 , (114) (113`) 1
 .
 , 1 (113`) (114) , (100)
 () 가 (113) (114) (114)
 .
 5d 6d 2 4 .
 , (115) (128) (130) (114) ()
 100) (BCB) (Acryl) (Resin)
 2 (139) .
 , (139) (130) (141)
 (114) (143) .

(143)

5e 6e 5

(130) (114) (139) - -

(ITO) - (IZO)

(130) (114) (P) (

117)

(117) (114) (117) 2

(C)가

(117) (114) (143)

(117)

가 가 가

2

-- 2 --

2 2

7 8 2

7 2 , 8 7

(213)

(213) 2 (233) (P)

(215) 1

(213) (215) (226) , (255) (256)

(258b) (258b) (215) (228,230) (258a) (T) (215)

(P) (213) (228,230)

(214) (214) (213)

(T) (213,215) (214) (200)

(230) (241) (214)

(243) 2 (239)

(243)

(P) (230) (214)
 (217) .
 , (213) (C)가 .
 , 1 (213`) (217)
 2 (214) , 2 (233) 가 .
 (C) 1 (213`) 2 (214)
 (258c) (213) (258c) , (214)
 1 가 , (C) (258c) (214)
 가 , (213) (214)
 , (243) , (217)
 , (243) (217)
 , (217) (214) (213)
 , (214) (213) .
 , (213) (214) , (200)
 가 (214) (213)
 , (C) 가 가
 2 1
 , (storage on gate) 가
 가 .
 2 , 가 .

(57)

1.

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1 ;

1 1 , 1 2 ;

가 , 1

, 2 2 ;

2 ,

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2.

1 ,

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3.

2 ,

, (n+a - Si:H)

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4.

2 ,

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5.

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1 2

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6.

1 ,

ITO, IZO

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7.

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가

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8.

7

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9.

7

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10.

7

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ITO, IZO

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11.

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1 ;
 1 2 ;
 가 , 2 ;
 2 , 2 ;
 2 ,
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12.

11 ,

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13.

12 ,

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(n+a - Si:H)

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14.

12 ,

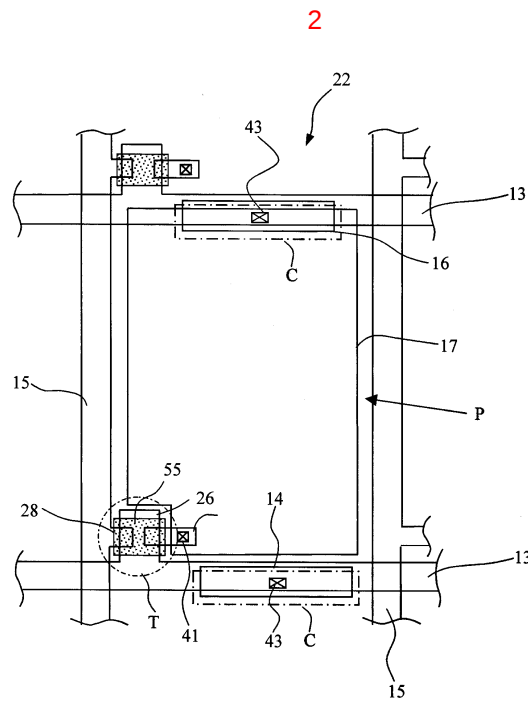
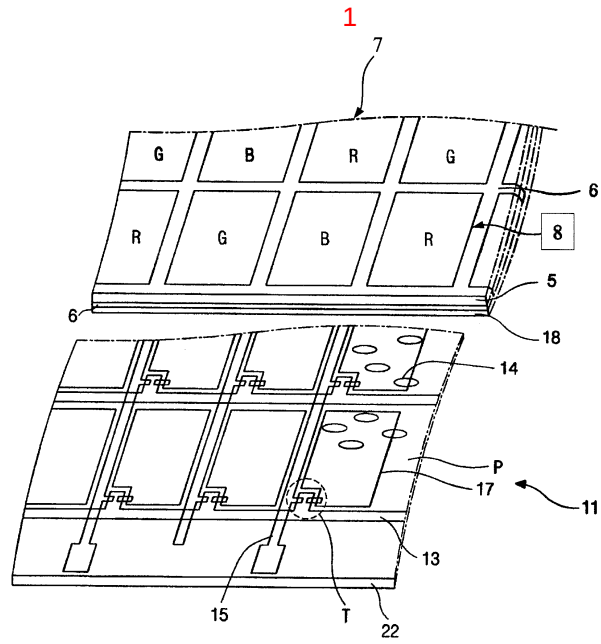
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15.

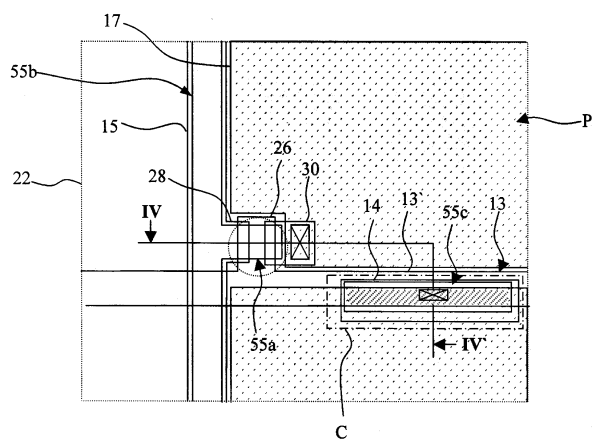
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1 2

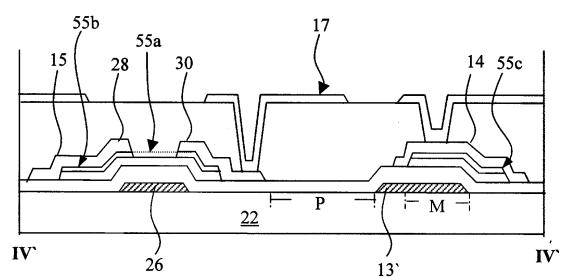
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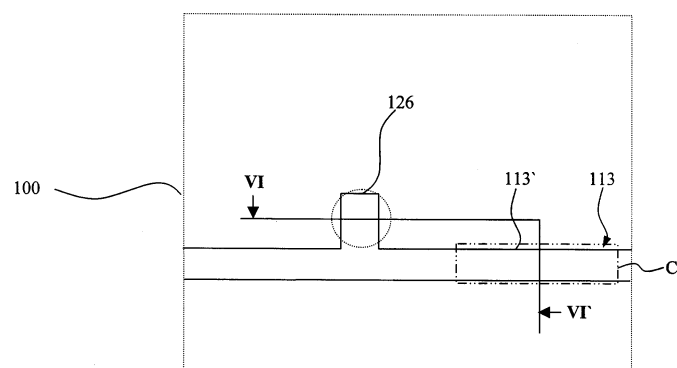
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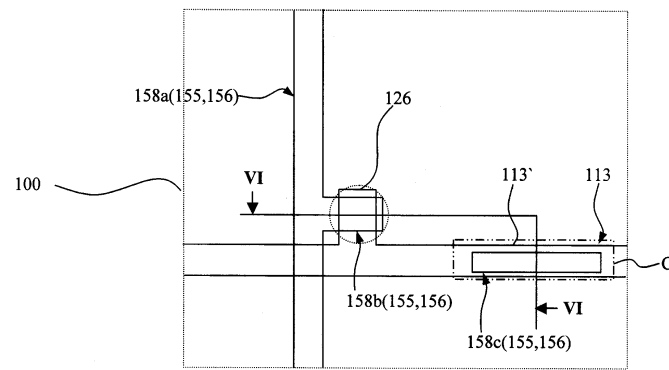
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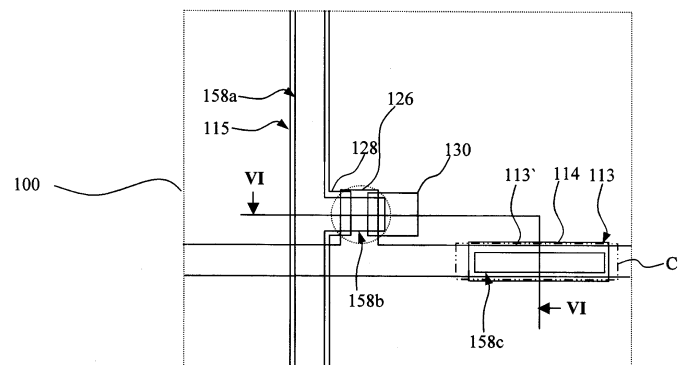
5a



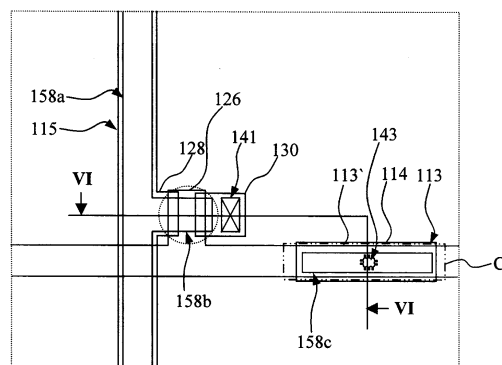
5b



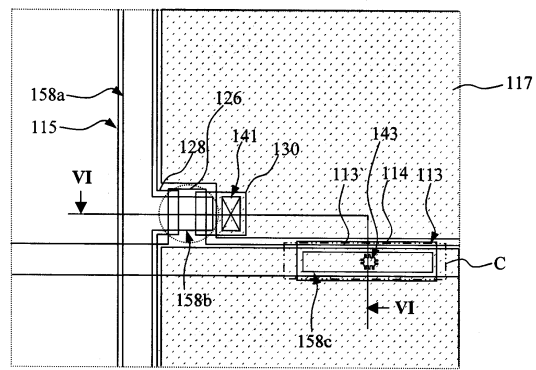
5c



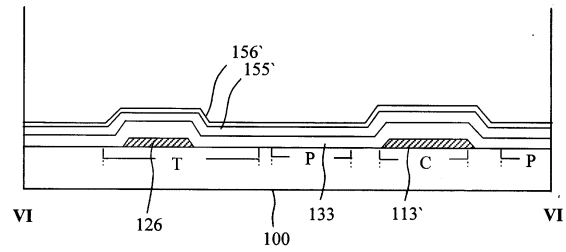
5d



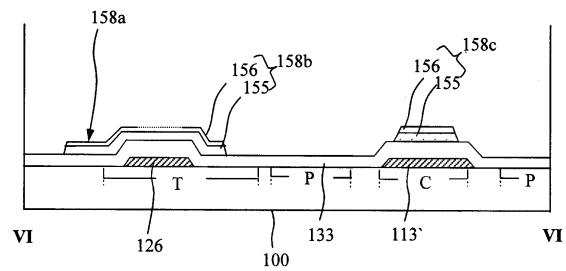
5e



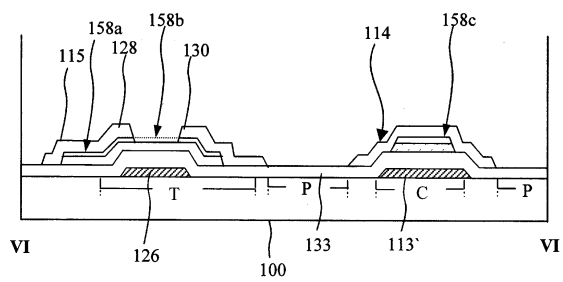
6a



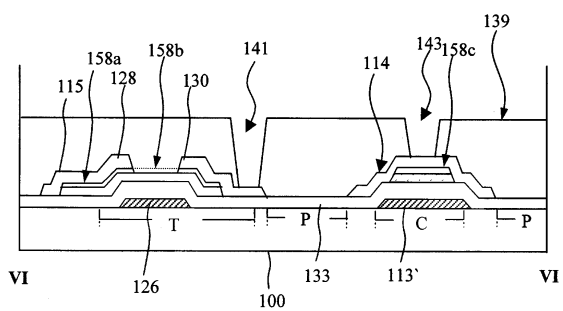
6b



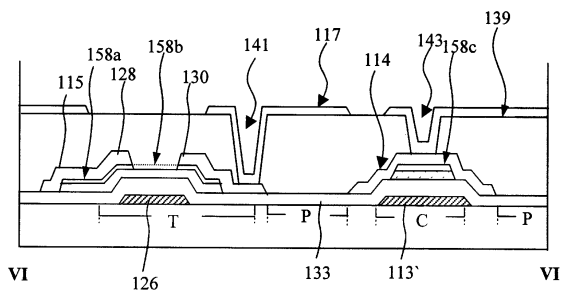
6c



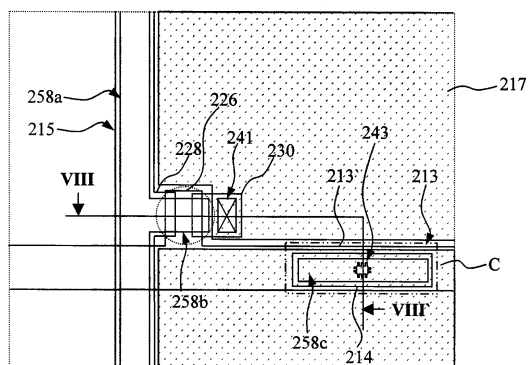
6d



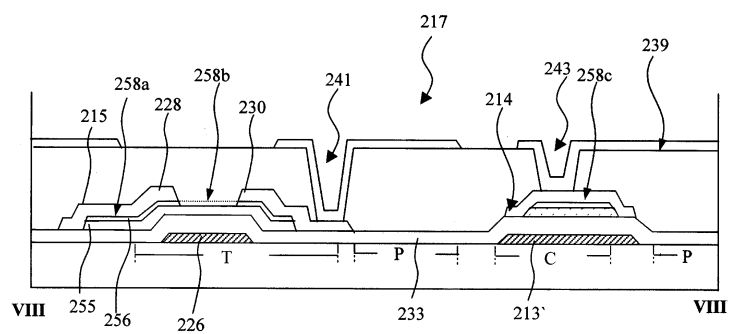
6e



7



8



专利名称(译)	用于液晶显示器的阵列基板的存储结构		
公开(公告)号	KR1020030030352A	公开(公告)日	2003-04-18
申请号	KR1020010062308	申请日	2001-10-10
[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	CHOI WOOHYUK 최우혁		
发明人	최우혁		
IPC分类号	G02F1/1333		
其他公开文献	KR100827328B1		
外部链接	Espacenet		

摘要(译)

用途：提供一种用于液晶显示装置的阵列基板的存储结构，通过定期对辅助存储器充电来改善液晶显示装置的显示质量。组成：栅极电极（126）和栅极线（113）形成在基板上。第一栅极绝缘膜，纯非晶硅层和不纯的非晶硅层堆积在基板上。图案化纯非晶硅层和不纯的非晶硅层，以在栅电极上形成半导体层（158a，158b，158c）。沉积导电金属并将其图案化以形成岛型金属电极层（114）。岛型金属电极层覆盖数据线（115），源电极和漏电极（128,130）以及栅极布线的一部分。形成钝化层并将其图案化以形成暴露部分漏电极的漏极接触孔（141），以及暴露金属电极层并且每个都具有不均匀内壁的存储接触孔（143）。沉积透明导电金属并在钝化层上图案化以形成同时与暴露的漏电极和金属电极层接触的透明像素电极（117）。

