

(19)
(12)

(KR)
(A)

(51) 。 Int. Cl.⁷
H05B 33/00

(11)
(43)

10-2004-0013794
2004 02 14

(21) 10-2002-0046865
(22) 2002 08 08

(71) . 20

(72) 305 701

(74)
:

(54)

가 가 , , (ground) (LiF)
(LiO2)

3

1

2 1 I-I

3

4 가 가

5

6 4 II-II

7a 7f

102: 103:

104, 204: 105:

106: 107, 207:

108: 109:

가 , CRT() 가 (L
 CD) 1 가 , LCD , EL
 , CRT EL(Electro-Luminescence) EL EL
 EL
 EL (hole) ,
 EL 가 , LCD
 IMT-2000 가 EL 가 가
 가 , 가
 가 ITO(indium-tin-oxide) ,
 가 (+), (-) 가 ,
 가 ,
 1
 (2) , (1) 가 가
 (5) , (3) ,
 (8) , (9) , (9) (ground;7)
 (6) (8)

(8) (8) 가
(LiF) (LiO2)

(8) (7) () 가 (8)
(porous) , 가 , (8)
(7) (sputter) (6) (8) (7) (

2 1 1-1 .

(7) (38) 1 (37a) (7) (4)
(8) 2 (37b) (6) (4) (4)
(8) (8) (4) (7) ,
(104) (7) (6) (8) (7)

(LiO2) (LiO2) (LiF) (LiF)

가 가
(ground) (LiF)

(LiO2)

(LiF) (LiO2)

() ; /
;

1 ; ;
(LiF) (LiO2) (LiF) (L

iO2) 2 ; ;

3

가 (102) , (103) , 가
 (ground;107) (105) , (108) , (109) , (109)
 (108) (106) (108) (108)
 (LiF) (107) (LiO2) (104)
 (107)
 (137a, 137b) (108) (107) () (108)
 (106) (107)
 (109) 가 가

4

가 가
 n (109) (A)
 (Gn) m (Pm) m (Dm) ()
 1 (10, 20)가 1, 2 ()
 (30) (Gn) 1, 2 (Dm) (10, 20)가 (30)
 1 (10) (Gn) (11) , (Gm)
 (12) , 2 (20)
 (13) (30)
 2 (20) 1 (10) (13) ()
 21) , (30) (+) (22) , (Pm)
 (23) (30)
 (10) (30) (Pm) 1 (40)가
 (Pm) (13) 2 (20) (P) (21)
 (30) 2 (20) (22) (+) , (31)
 (107) (30) (-) , (20) (+) (22) (-)
 (31) (31)

5

(hole injection layer; HIL)(34) (30) (39) , (39)
 (31) , (31) (hole transport layer; HTL)(32b) , (32b)
 (108) (electron transport layer; ETL)(32a)
 (104) (108) (32a) (LiF) (Li2O2)
 (Fermi level) (shift) (Li2O2)(35) (108) (108) (32a)

6 4 II-II

(138) 1 (;137a)
 (107) (107) 2 (137b) (107) (106)
 (108) (108) 2 (137b) (107)
 (104)
 (108) (104) (106) (107)
 (107)
 2 (108) (10
 7) (107) (104) (104) (1
 08) 가
 (104) (107) 가
 7a 7f
 7a (201) (200) (200) (201)
 (201) (220)
 (221) (220)
 7b (220) (223)
 (230)
 (230) (223B) (223A) (220) 가 (B)
 7c (221) 1 (225) (223B) (223A),
 1 (240) (240) (225) (221), 1 (221),
 (240) (225),
 (223B), (240) (223A), 1 (225) 가 2 1 (227) (225) 2
 (227)
 40) (223A) (250) (223B) (2
 207) (223B) (240) (260) ()
 (260/250) (207) (sputtering)
 7d 7c BCB(BensoCycloButene), SiNx
 , SiOx (207) 가 (228) (223A) (25

(270) 7e (228) (250) (228) 3 (229)
 (272) (270) (270) ITO IZO
 (204) (207) (204)
 7f (207) (204) (275) (207) (275)
 (275) (evaporator)
 (207) (260)
 가 가 가 / 가
 가 가 가
 (LiO2) 가 (LiF)

(57)

1.

;
 , , 1 2 ;
 2 ;
 1

2.

1 , 1

3.

1 , 2

4.

1 , , ,

5.

1 , (LiF) (LiO2)

6.

1 , 1

1 7. , 가

7 8. ; 가

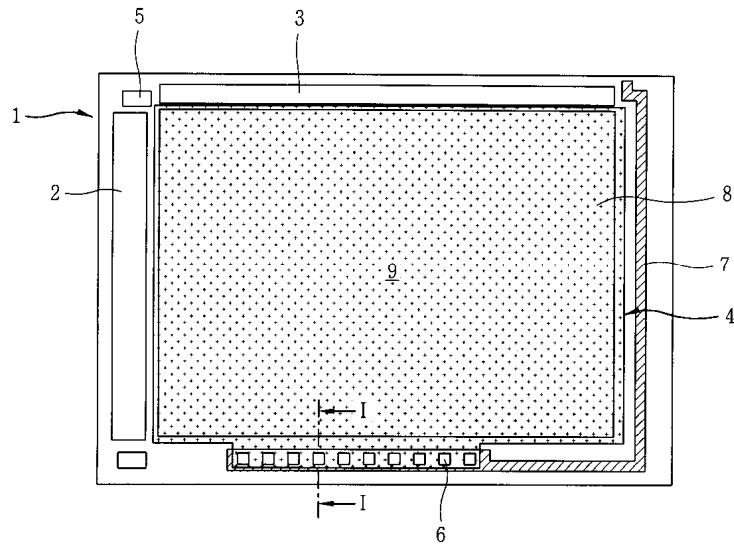
9. ;
1 2 ;
2 ;
1 (LiF) (LiO2)

10. ;
/ ;
; 1 ;
(LiF) (LiO2) ;
(LiF) (LiO2) 2

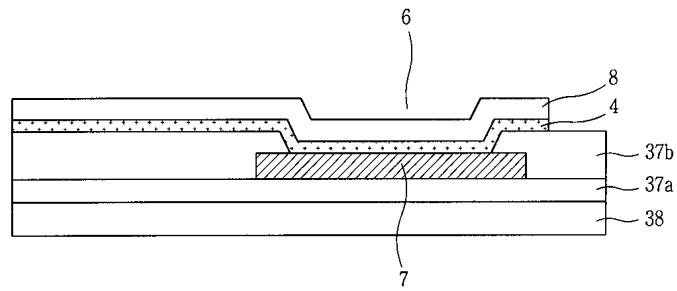
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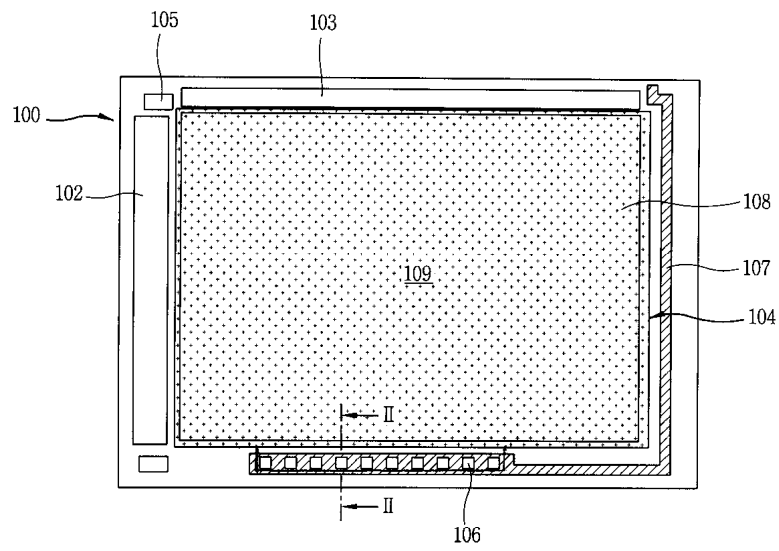
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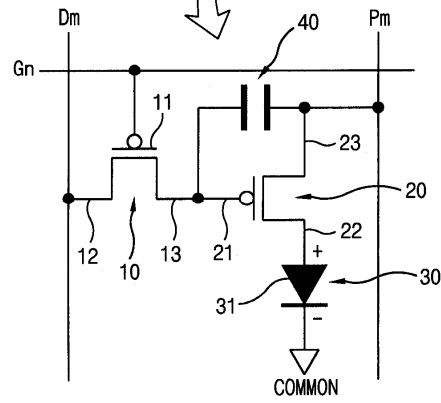
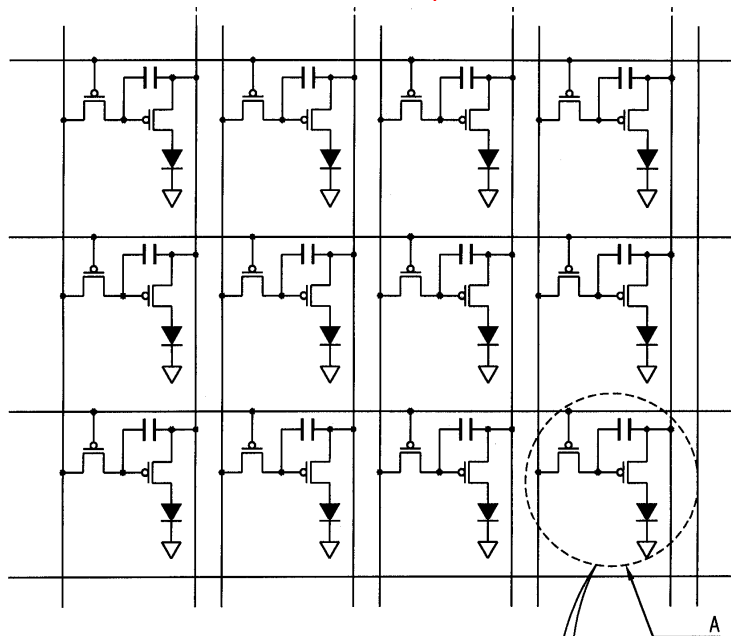
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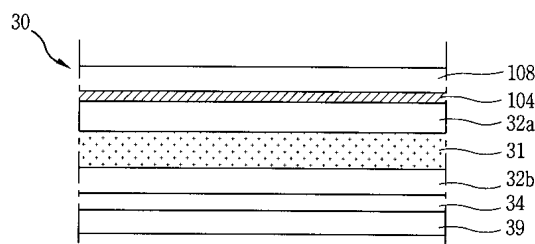
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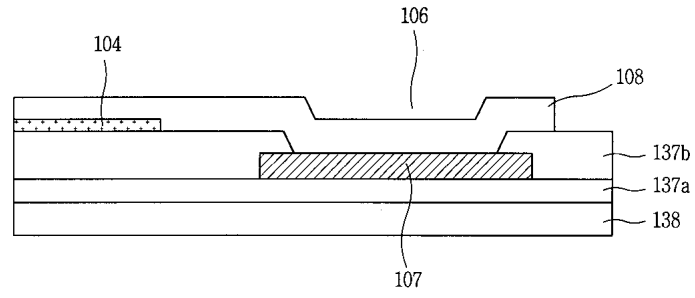
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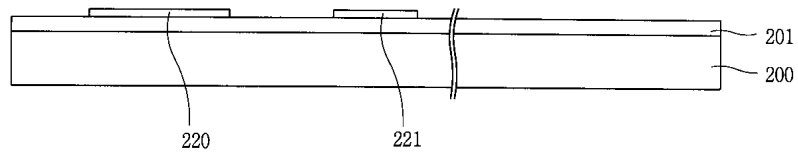
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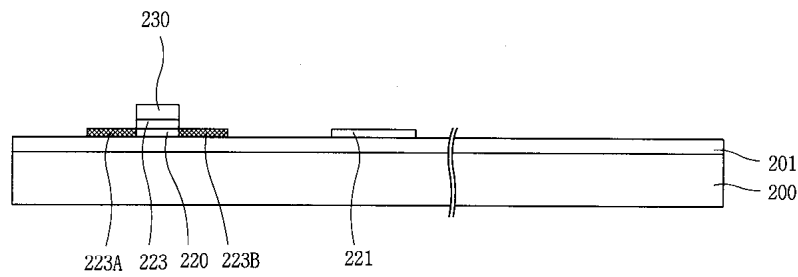
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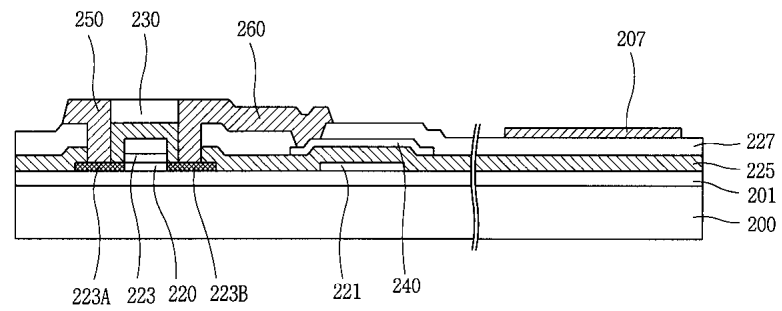
7a



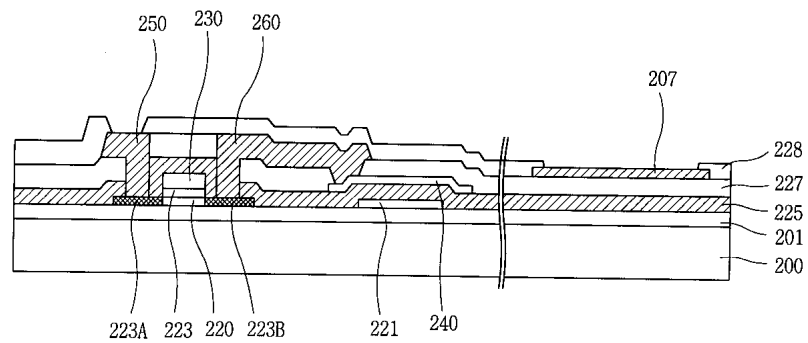
7b



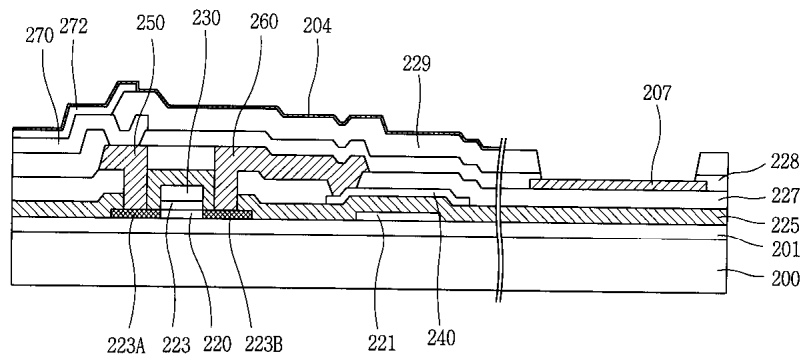
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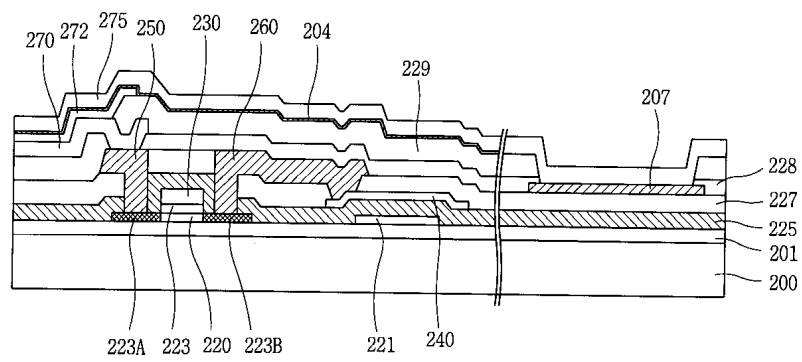
7d



7e



7f



专利名称(译)	有机电致发光显示装置及其制造方法		
公开(公告)号	KR1020040013794A	公开(公告)日	2004-02-14
申请号	KR1020020046865	申请日	2002-08-08
[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 JAEYONG		
发明人	PARK, JAEYONG		
IPC分类号	H01L27/32 H01L51/52 H05B33/00		
CPC分类号	H01L27/3276 H01L51/5221		
代理人(译)	PARK, JANG WON		
其他公开文献	KR100885842B1		
外部链接	Espacenet		

摘要(译)

本发明涉及有机电致发光显示装置及其制造方法，并且包括在阴极的剩余区域中形成的氟化物 (LiF)，除了在下部形成的区域和接地线和阴极电极之外的区域。重叠或氧化物 (LiO₂) 层。

