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10-2002-0088437

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102 1408

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Mo/ITO

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4g

, 4- , , , Mo/ITO,

1 .

2 1 I-I' .

3a 3e .

4a 4g .

* *

105 : 107 :
 111 : 112 :
 113 : 114 :
 120,130 : 122 :
 124 : 126 :
 127 : 132 :
 134 : 140 :

4-

(Mobile Phone), PDA, (Flat Panel Display Device) 가
 LCD(Liquid Crystal Display), PDP(Plasma Display Panel), FED(Field Emission Display), VFD(Vacuum Fluorescent Display) (LCD)가

가 TN 가 TN
 (refractive anisotropy) 가 가

(wide viewing angle characteristic)
 (In Plane Switching Mode) 가
 IPS

1 IPS (1) (3) (4) (n,m) (1)
 (1) (1) N×M (3) (4) N(>n) M(>m) (4)
 (10)가 (11) (10) 가 가 가 가
 (11) , (12) (11) (4) 가 가 (13) (1
 (12) , (12) (4) 가 가 (16) (5) (7) (16)
 4) (4) (5) (18) (16) (16) (16)
 (7) (18) (16) (storage capacitance) (16)
 , IPS (10)가 (7) 가 가 (7) (5) (7)

(1) 가 .

2 1 I-I' , (1)

(26)가 , 1 (20) (11) (22) (22) (12) (13) (14) .

1 (20) (passivation layer;24) .

, 1 (20) (5) (7) 가 (22) (7)

(4) (5) (7)

, (24) (22) (27) , ITO(Indium Tin Oxide)

(28)

2 (30) (32) (34) . (32) 가

(,) 1 (20) 2 (30) (34) R(Red), B(Blue), G(Gree (10) (40)

n) (1) .

3a 3e IPS , 6 5 가

IPS 5 IPS 7

, 가 5 IPS

, 3a , 1 (20) 1 (26) . 2

3b , 1 (11) (20) (5) (22) (12) .

, 3c , (12) (22) 3 (22)

(7) (12) (13) (14)

, (7) 1 (20) 3d (22) (24) , (24) 4

3e , 5 (26) (27) ITO (24) (27) (28) .

IPS , 2 1 2

5- IPS 6- 7-

가 5-

, 4

가 4-

2

Mo/ITO(Indium Tin Oxide)

Mo/ITO

4

4- IPS

4- 가

IPS / 가 Mo/ITO Mo/ITO

ITO 2

IPS

4a 4g IPS

4a (105) (sputtering) 1 (120) AlNd Mo (evapor (111) (126) SiOx SiNx 4b , CVD(Che (122) (112a) (112a) n + (122) (127) (127) (126))가 (122) (112a) (127) (127) (126)

3c (107a,107b) (112a) Mo ITO (113a,113b) (114a,114b) 3 Mo/ITO (122) Mo/ITO (128a,128b) 가

3d (128a,128b) (masking) (113a,113b), (114a,114b), (107a,107b), (112a) (112a) (113a,113b) (114a,114b)

4e 1 (120) SiOx SiNx 4

24) (113a,113b) (114a,114b) (124) , (1
 (113a,113b) (114a,114b) , (,)
 (124) (112a) (124),
 (113a,113b) (114a,114b), (107a,107b), (128a,128b) (112a)
 (113a,113b) (114a,114b) (124) (112)
 (107a,107b) (128a,128b) (112a) 가
 (112a) ,
 4g , 2 (130) (132) (134) 1
 (120) 2 (130) (140) (134) (134)
 2 (130) (overcoat layer)
 (140) 1 (120) 2 (130)
 (liquid crystal dispensing method), 1 (120)
 2 (130) 1 (120) 2 (130) (120)
 ,130)
 , IPS , (,
) , / 4 , 5 4
 , 4 , 5
 ,
 IPS 4g ,
 ,
 IPS (113a,113b), (114a,114b), (107a,107b),
 (128a,128b) Mo/ITO (107a,107b) (128a,128b) (10
 (112a) (124) (107a,107b)
 5) (107a,107b) (,) (107a,107b)
 (124) (124) ,
 (124) (105) (107a,107b) 가
 , (124) 가
 , IPS 가 IPS
 2 3 4
 4 (block) IPS 2 6 가
 IPS 가
 , 4 IPS 가
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(57)

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1, Mo/ITO(Indium Tin Oxide)

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1, Mo/ITO

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Mo/ITO / , ;

8.

1 AlNd Mo ;

9.

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10.

7, / ,

Mo ITO ;

3 Mo ITO

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14.

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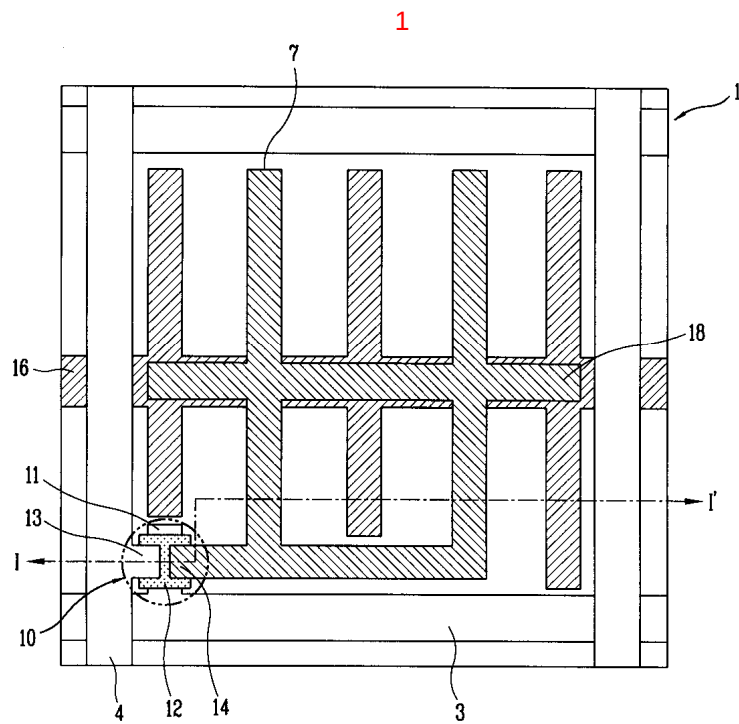
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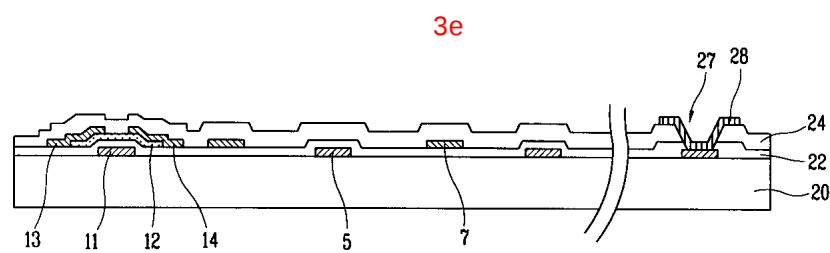
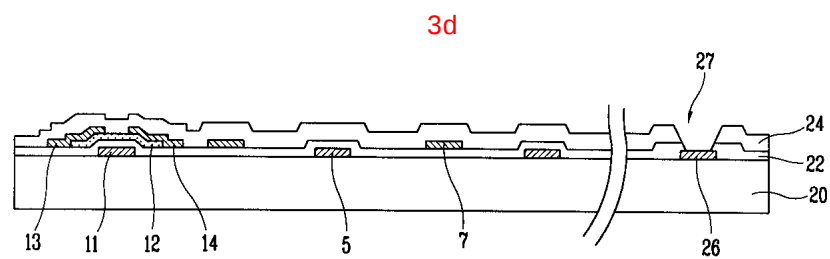
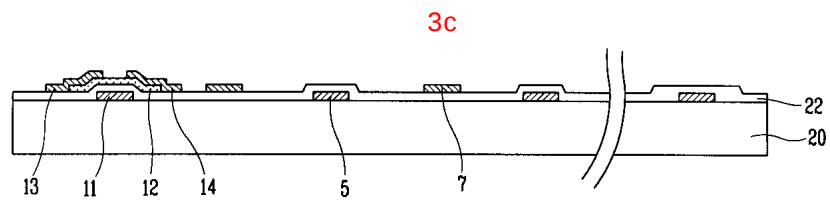
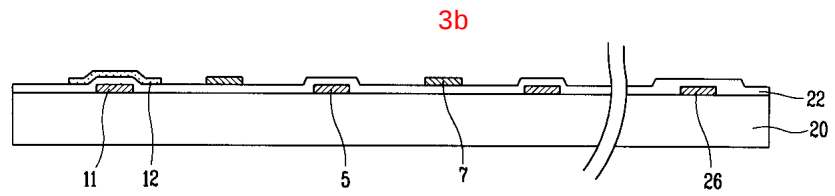
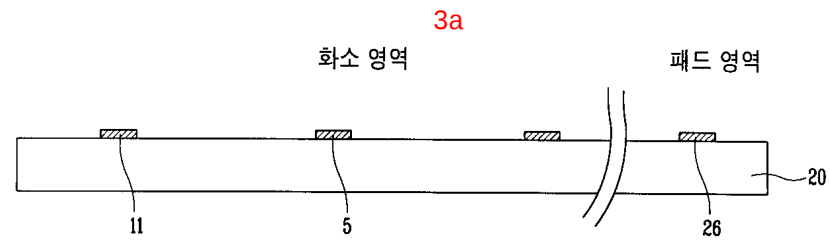
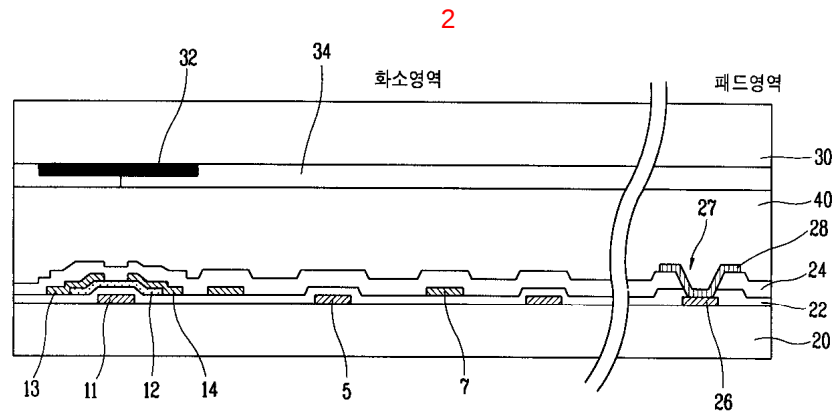
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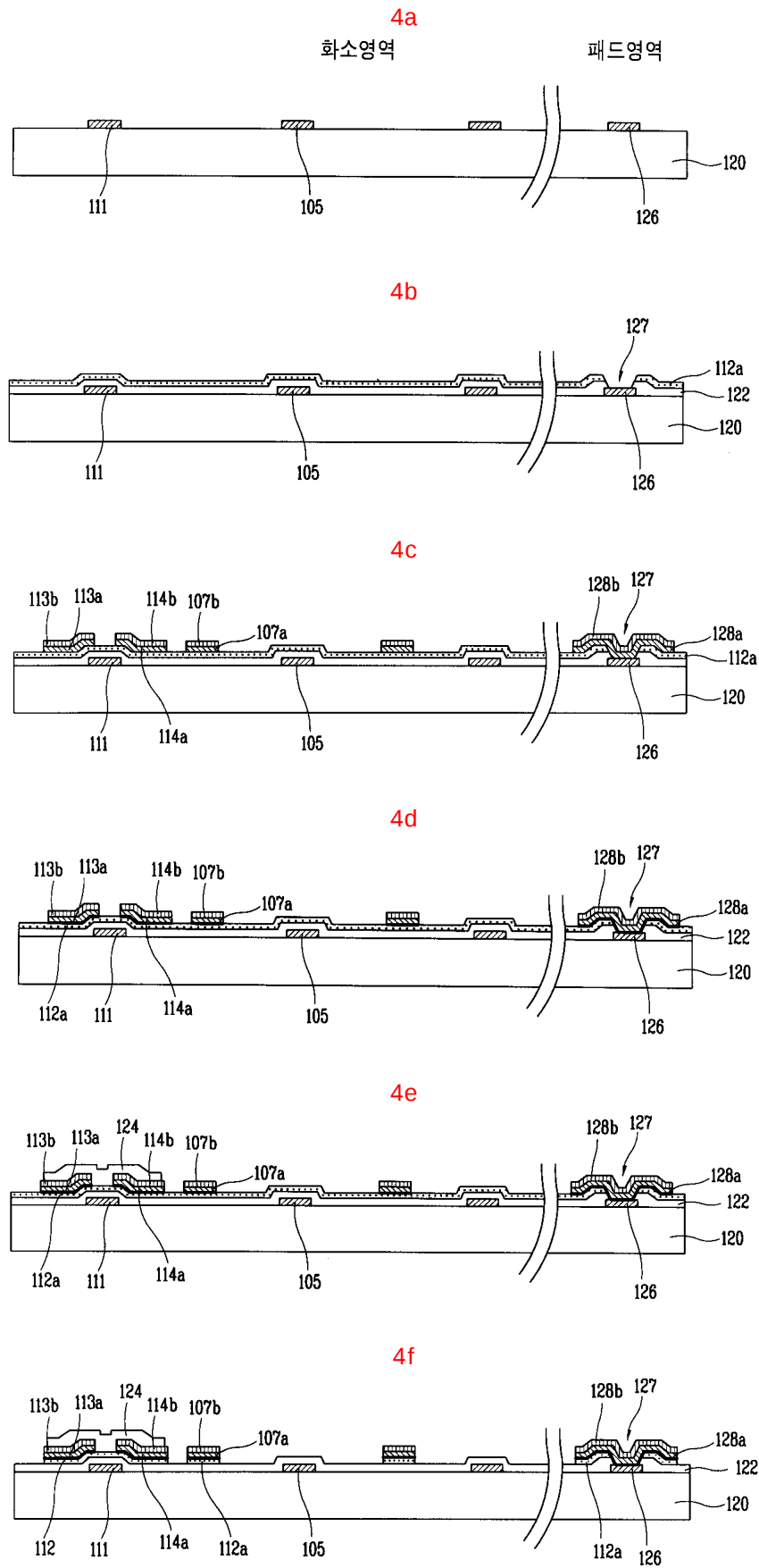
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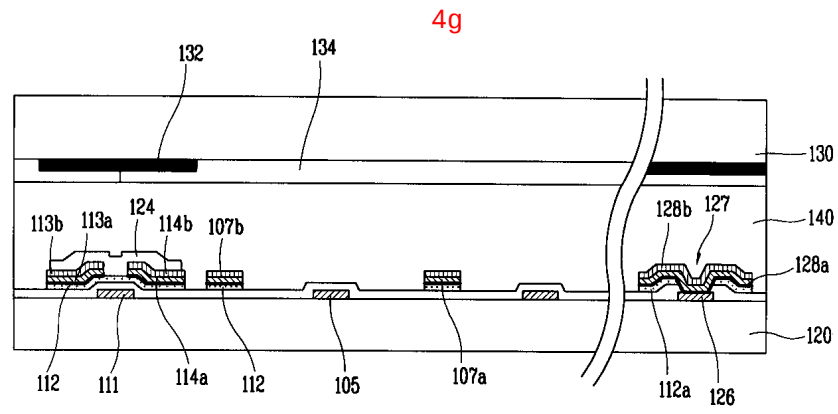
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专利名称(译)	横向电场模式液晶显示元件及其制造方法		
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[标]申请(专利权)人(译)	乐金显示有限公司		
申请(专利权)人(译)	LG显示器有限公司		
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IPC分类号	G02F1/1343		
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外部链接	Espacenet		

摘要(译)

本发明的平面转换模式液晶显示装置的制造方法包括在基板上形成栅电极的步骤，以及使用4个掩模简化制造工艺和降低制造成本的公共电极和焊盘，在进行层压后打开焊盘的步骤，在上述半导体层上的Mo和上部的ITO形成源电极，漏电极和用于像素电极和焊盘的金属层的步骤，该步骤形成源电极和漏电极上的保护层的步骤，以及蚀刻半导体层的步骤。在平面切换模式下，4个掩模，焊盘，开口，Mo / ITO，蚀刻。

