

(19)
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(24)2004 08 09
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2004 07 30(21) 10-2001-0031510
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(43)10-2002-0092719
2002 12 12(73) .
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(72) 1155가 512-901

348-1002

(74)

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(54)

2 TFT

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1 2 ; 1

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2 1 'A-A"
3a 3e 2
4 3

5 2
 6
 7 6 'B-B"
 8a 8e 7
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 1,31 : 3,33:
 5,35 : 7,37:
 9,39 : 11,41 :
 13,43 : 15,45 :
 17,47 : 19,49,61 :
 21,51 : 23,53 :
 25,55 : 27,57 :
 28,58 : 29,59 :

, 2 TFT

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(Thin Film Transistor; TFT)

1 2 , (13) (11) TF
 T(T) , TFT (7) (23) , (13) (11)
 (GP) (DP)
 TFT(T) (11) (3), (13) (5) (19
 b) (23) (10) , TFT(T) (3)
 (5) (7) (15,17) T
 FT(T) (11) (13)
 (23)
 (23) (13) (11)
 (23) (21)
 (19b) (7) (23) TFT(T) (21)
 () ()
 (1) ()
 (23)
 (GP) (DP) (11) (13) IC(Int
 egrated Circuit) (GP) TFT (11)
 (DP) TFFT (13)
 (25) (11) (3) (Al) (Cu)
 (27) (13), (5) (7) (Cr)
 (Mo) (25) (19c) (28)
 (27) (19b) (29)
 3a 3e 1 2
 3a (1) (11), (25) (3) (Al)
 (11), (25) (sputtering)
 (Cu)
 3b (9) (15) (17)

(9) (11), (25) (3) PECVD(Plasma Enhanced Chemical Vapor Deposition) (15) (17)
 (9) 1 2 (SiNx) (SiOx) (17) 2 (15) 1 N P
 3c (13), (9) (13), (27), (5,7) CVD (5,7) (sputtering) (5,7) (15)
 (3) (17) (15) (5,7) (Cr) (Mo)
 3d (13), (27), (9) (21) (19a) (19b) (21) (21)
 (21) (27) (9) (7) (19c) (acryl) (Teflon), BCB(benzocyclobutene), (SiNx), (SiOx) (cytop) PFCB(perfluorocyclobutane) 가
 3e (23), (21) (23), (28) (29) (21) (29)
 (23) (19c) (19b) (25) (7) (29) (28) (19)
 a) (23), (28) (29) - - (Indium - Tin - Oxide : (Indium - Tin - Zinc - Oxide : 'ITO') - - 'ITZO') (Indium - Zinc - Oxide : 'IZO')
 (Cr) (Mo) (6a)/ 2 (6b)/ 3 (6c) 3
 가 1 3 (6a,6c) 1 (Mo) 2 (6b)/ 2 (6c) 3
 (Al) 3 (electrode potential) 1 3 (6a,6c) 2 (6b) 1 3 (6a,6c) 2
 (6b) , 1 3 (6a,6c) 2 (6b) 1 3 (6a,6c) 2
 1 3 (6a,6c) 4 2 2 (6b) (undercut) (15) 2 3
 (6b) (21) (15) , 3 가가 1 (6a)/ 2 (6b) 2
 (Mo) 2 (Al) , 2 (6b) 2
 eal) / 200 200 2 (s
 (15) 1 (6a) (15) TFT
 2 (6b) (15) 2 (6b)/ 1 (6a) 1
 (6b) 2 (22) (6b) (15) 1
 , 2 TFT

[illegible]

(DP) TFT (43) (Al) (Cu) 1
 (55) (41) (33) (35,37) (62) (49a,61a)
 (57) (43), 가 (55) 1 2
 58) (65) (57) 1 2
 (59) (65) (49a) (35), (37) (57)
 1 (49b) 1 (61b) 2 (61a) (61b) (62) (51) (49a) 1
 2 (61a) 2 (61b) 1
 (49b)
 8a 8e 6
 8a (31) (41), (55) (41), (33) (55), (sputtering) (33) (Al)
 (Cu) (39) (45) (47)
 8b (39) (41), (55) (33) (47)
 anced Chemical Vapor Deposition) (39) 1 2
 (39) (SiNx) (SiOx) (45) 1
 (39) (47) 2 N P
 8c (39) (43), (35,37) CVD (57), (35,37) (sputtering) 1
 2 (36a,36b) (57), (35,37) (47) (45) (35,37) (45) (49b)
 (33) (35,37) (33) (49a) (57) (Mo) 2 (36b)
 1 (37) (36a) (Ti), (Ta), 1 (W), (Cr) (39) (51) (35,37) (39)
) 8d (Al) (51) (57), (39) (51) (35,37) (39)
 (51) 2 (61b) 2 (61a) (62) 2
 (61b) 2 (61a) 1 (49b) 2 (49a) (49a)
 1 (49b) (37) 1 (49a) (49a)
 (57) (61b) 1 (49b) (61a) 1 (49a) (62) (51)
 2 (39) (55) (SiOx) (acryl) (Tef
 lon), BCB(benzocyclobutene), (SiNx), (cytop) PFCB(perfluorocyclobutane) 가
 8e (51) (53), (58) (53), (58) (59) (51) (59)
 (53), (53) (63) 1 2 (49b,61b) (37)
 (59) (65) 1 2 (49a,61a) (57)
 (58) (67) (62) (55)
 (53), (58) (59) ITO, IZO, ITZO

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(Mo),

(Cr),

(Ta),

(W)

(Ti)

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(Al)

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(Mo), (Cr), (Ta), (W), (Ti)
(Al) 2

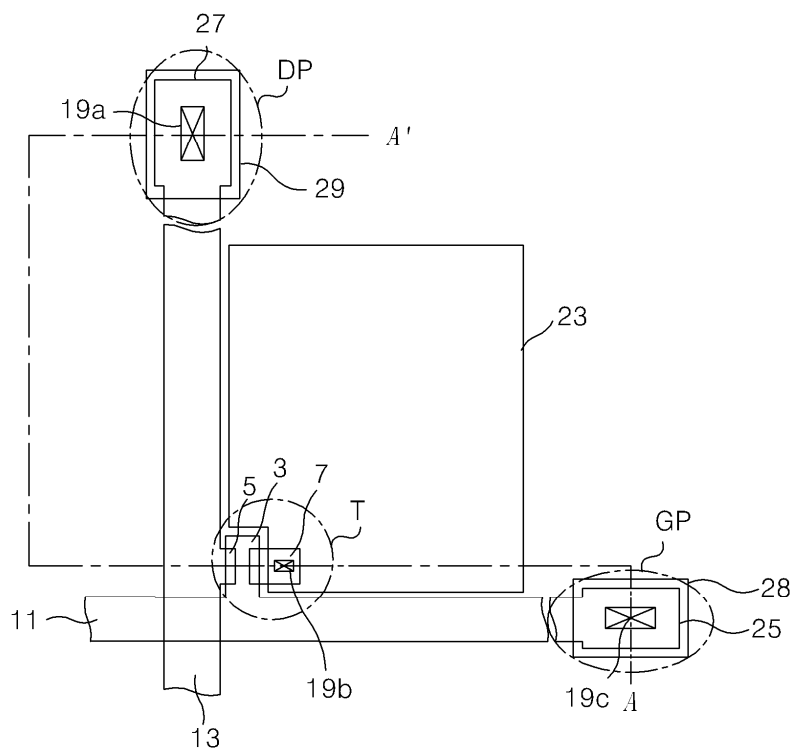
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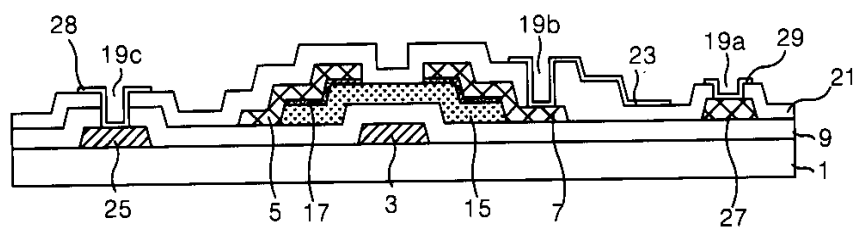
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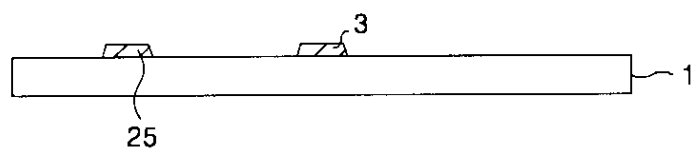
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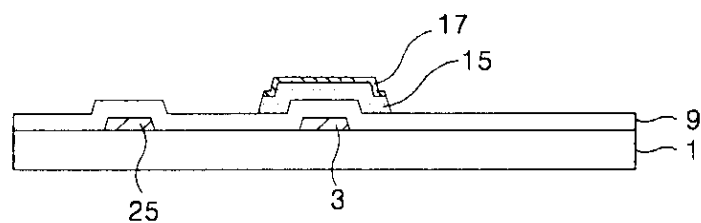
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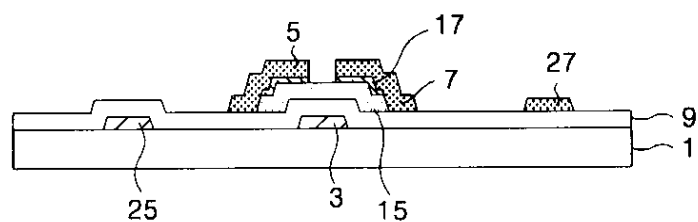
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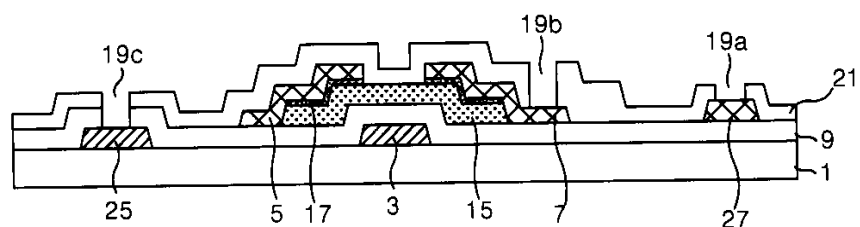
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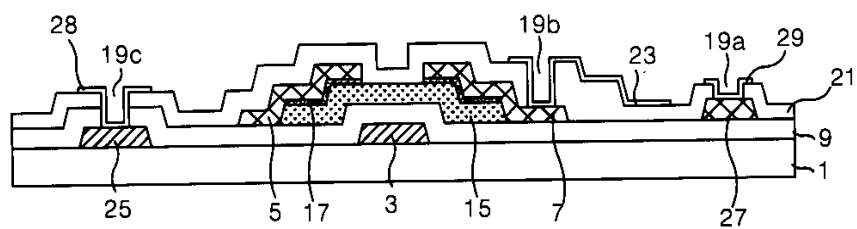
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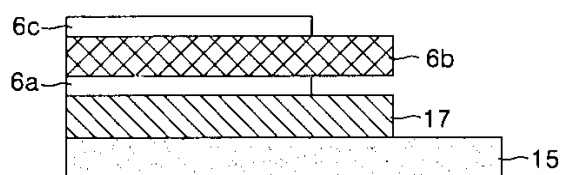
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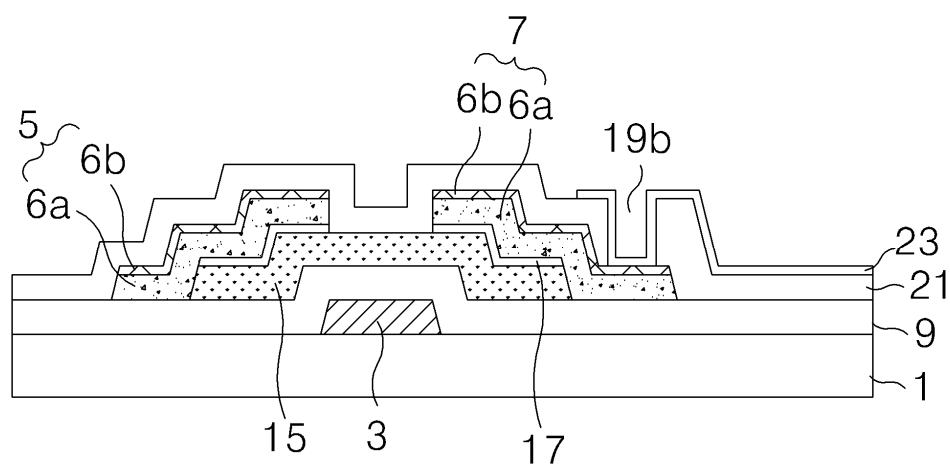
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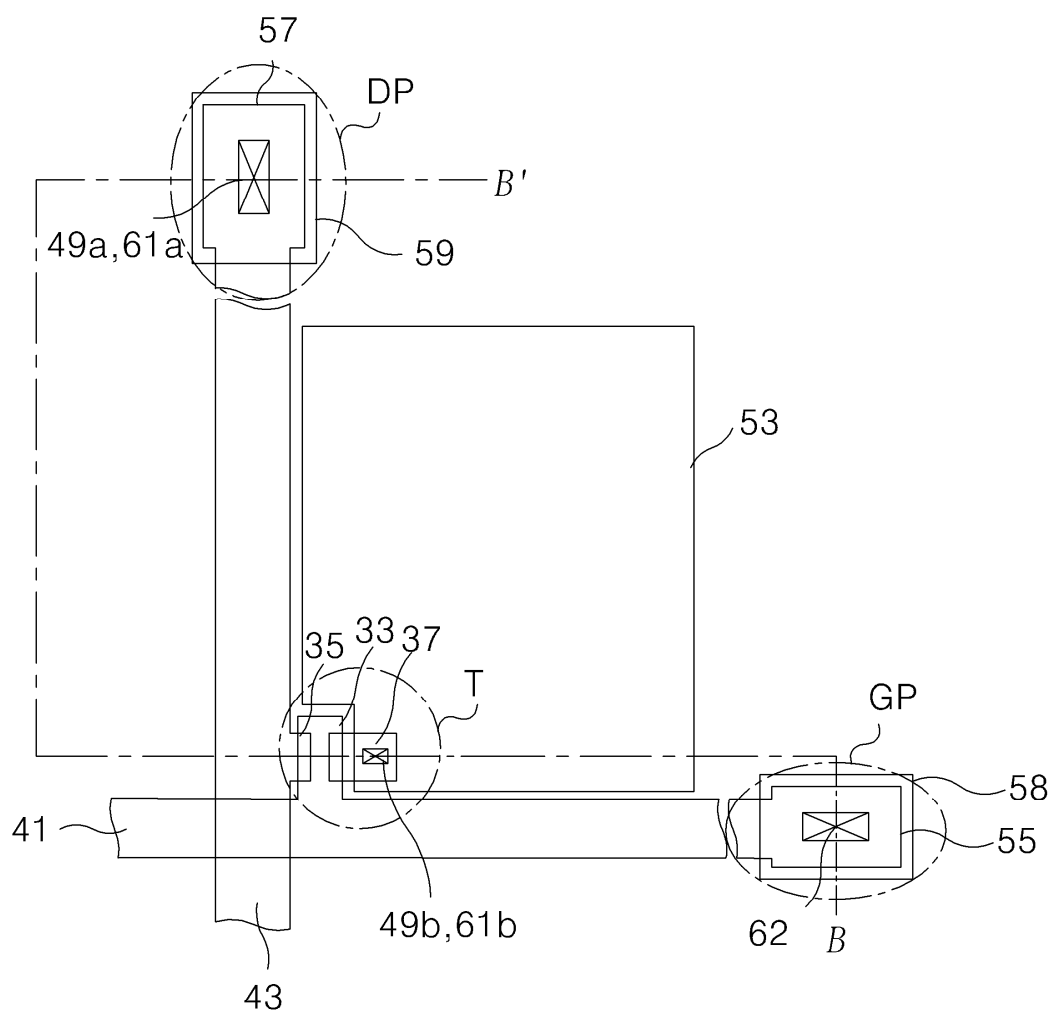
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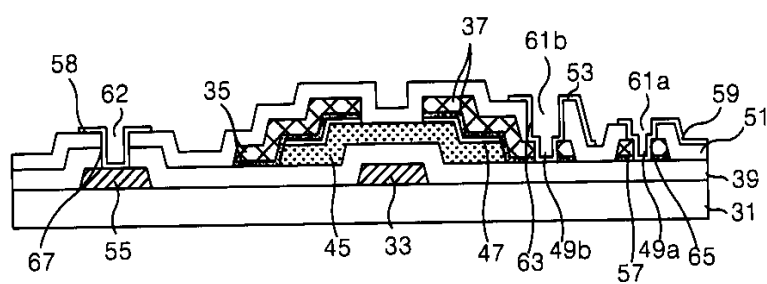
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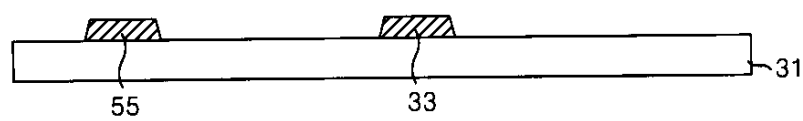
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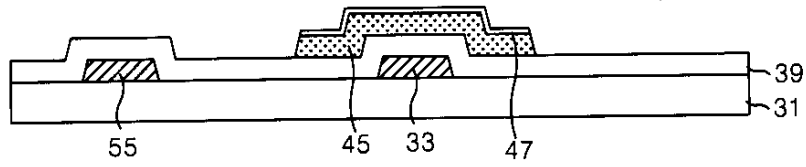
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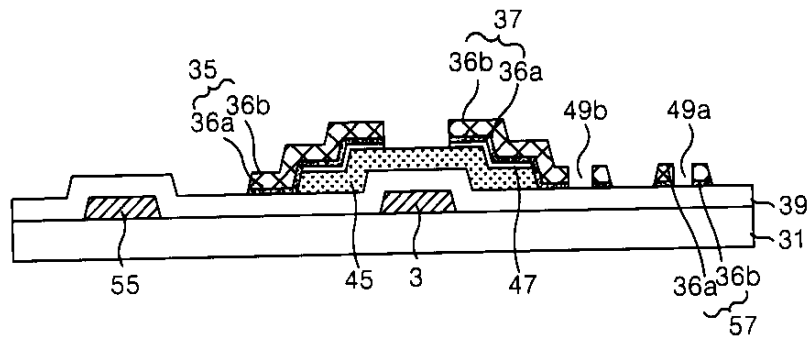
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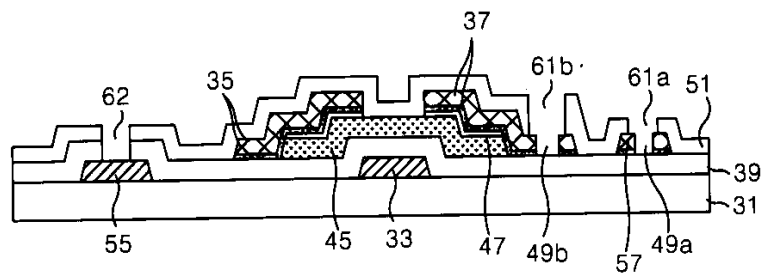
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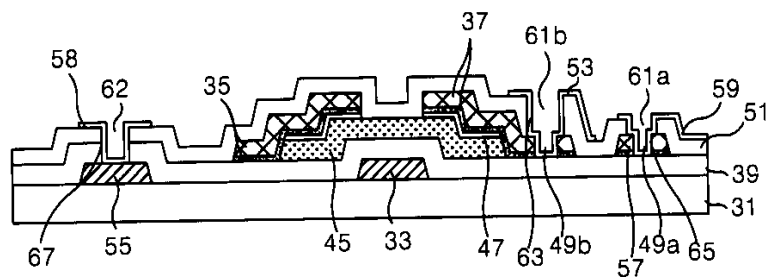
8c



8d



8e



专利名称(译)	用于液晶显示元件的阵列基板及其制造方法		
公开(公告)号	KR100443829B1	公开(公告)日	2004-08-09
申请号	KR1020010031510	申请日	2001-06-05
[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	JO GYOOCHUL 조규철 YOO HONGSUK 유홍석		
发明人	조규철 유홍석		
IPC分类号	G02F1/136		
代理人(译)	KIM , YOUNG HO		
其他公开文献	KR1020020092719A		
外部链接	Espacenet		

摘要(译)

本发明涉及到像素电极的漏电极的TFT的双层结构和和数据焊盘和数据焊盘终端的液晶显示元件的阵列基板和用于减小电极之间的接触电阻的制造方法之间。根据本发明的用于液晶显示器的阵列基板包括：基板；提供在基板上形成扫描信号的栅极布线；数据线与栅极布线和栅极绝缘膜交叉并提供数据信号；栅极连接到栅极布线；源极连接到数据线；通过在源电极和预定尺寸的沟道之间层叠不同种类的金属而形成的漏电极；第一漏极接触孔，其穿透漏电极以暴露漏电极的侧表面和栅极绝缘膜的平面；形成保护膜以覆盖栅极布线，数据布线，源电极和漏电极；第二漏极接触孔与第一孔和所述漏极接触部以露出一侧相反的通和第一漏极接触孔和相应的保护膜的平的边缘部分，以与至少一个漏极接触孔和宽度的保护膜的漏电极；并且像素电极通过第一漏极接触孔与漏极侧面接触，并且通过第二漏极接触孔与漏极电极边缘的平面接触。 6

