

(19) (KR)  
(12) (A)

(51) 。 Int. Cl.<sup>7</sup> (11) 10-2004-0010118  
G02F 1/1343 (43) 2004 01 31

(21) 10-2003-0040290  
(22) 2003 06 20

(30) JP - P - 2002 - 00213335 2002 07 23 (JP)

(71) 997

(72) 997

(74) :

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( ) (1) (15),  
(15) (22) . (22) (17)  
(15) (41) . (17),  
(41) (45) (12) (41) (41) (15)  
(17) , (41) 2

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(精細化) 가 가 가 .

(塵埃) 가 .

가 . , , .

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12 , 13 (TFT), 15 , 16

, 17 , 28 .

7 , (12) (13; TFT) 가 (12) ,

(15) , TFT (13) TFT (13) 가 , TFT

(13) 가 (17) , TFT (13) TFT (13) (

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2) 가 (16) .

9-113930 . 8(A)

9-113930 1 . 7 , 29 ( ) .

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7 , (12) (15) (22)

, (22) , (12) (15) 가 .

7 (28) × 가 .

, 8(B) , (15) (12) (29)

(15) 가 (15) (29) (12) (29) (16)

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, 9-113930 2 1 , 10

9, 10 . 9 1 , 41

. 7, 8 , 42 , 43 .

9 10(A) , (12) (12)

(15) 가 , (15) (15)

(41) 가 , (17),

(16) , 가 (43) .

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 (28) ( 9 x (41) (15)  
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 (29) (41) (29) 가 (15)  
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 (12) (29) 가 (12) ITO (Indium Ti  
 n Oxide) (15), (16) , , 가  
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 12) , 9-113930 2 ( 가 , ,  
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 , 가

(15)), 1 ( (22)),  
 1 (17)), 1 ( (22)),  
 (41)), TFT (13)), (2)  
 ( (45)), 2 ( (2)  
 (30)), (12)) ,  
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가

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1 4 1 2 3 (28) 가

1 3(A) TFT 11 , 12 , 13 , 15 , 16 , 17 , 21 , 22 , 23 , 24 , 25 , 26 , 27 , 28 , 29 ( , 30 ) , 37 , 38 , 41 , 42 , 43

1 T (13) (21) (12) (13; TFT) 가 TF TFT (13) 가 (15) , (21) (17) TFT (13) ) TFT (13) 4 (14) ( ) 가 (15) (14) (30) (12) (12) (16) (17) TFT (13) (12) 가 (41) , (17) (43) (15) (16) (42)

2 1 1 3 (28) 가 (15) 3 (A) 1 (11) (15), (22), (41), (45), (12) (11) (15) 0.3  $\mu\text{m}$  0.5  $\mu\text{m}$  0.3  $\mu\text{m}$  가 (22) (41) (41) YAG 0.1 0.2  $\mu\text{m}$  (45) 0.1  $\mu\text{m}$  ( 12) ITO 0.05  $\mu\text{m}$  0.1  $\mu\text{m}$

TFT 4 4 (11) , (21) (22) (23) , (24) (45) (21) (24) CVD (22), (23) ,

1 n+ (25) 2 n+ (26) 2 n+ (26) (27) , 1 n+ (25) 1 n+ (25) 2 n+ (14) (As) , 1 n+ (25) 2 n+ (23) (P), (14) (27) (25) 2 n+ (26)

(12) (14) , (45) (30)

(30) , , , , ( (

12) 4 ITO (14) 1 (41) (14) (27)

(21) (14) 가 가 (14)

, TFT (13) (45) 가 TFT (13)

3(B) 2 (15) (28) ( (

(11) TFT (13) 가 ) (15)

2 (15) (28) (15) (28)

, (15) (29) (41) (15) (29) , (15)

(15) (29) (41) (29) (15) 가

, (28) (12) (12)

, (41) 가 (12)

, (12) 가 가 가

, (12) 3(C) , (12) (1

5) 가 가 . (15) (15) (15)

(29) (29) (12) (41) (29) (15)

2 (29) (50) , TFT (13) (12)

가 , (15) 가

(29) (12) (30) ( (

12) (14) . , 100 (

K (41) (41) (

17), (2) , , (41) (17)

(41) (28) 가 , 가

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2 5, 6 5 1

1 4 1 5

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(41), (42), (43) 가

(12) 2 1 1 3 , 1 3

, 2 5 (15) (16) ,

1 4 (14) (42)

(17) 가 가

가

6 (28) (41) (12)

, (15) , (29) , (12)

(11) (29) (41) (29) (15) 가

(29) (28) (41) (29)

가

(12) ITO



(15) 8(b) (12) (15) (12) , 6  
가 , (29) 4 (14) , ,  
(15) (12) ITO 가 , , , (14)  
(17) (12) (30) , , , 100 (14)  
(12) (15) 가  
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1 2 (17), (16)  
(43) (15) (17) , 가 ,  
(TFT 가 ) (15) , (12) (1) (29)  
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1 (43) (15) (16) , (43)  
가 (15) (16) 가 (43)  
(12) , (15)  
(43) .

(17) (15) 가 (15)  
(42) (17) 가 , ,  
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, 2 TFT (12) (12) 가 ,  
(50) (12) 가 ,  
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(15) (17) (22) (15) (16)  
가 ,  
(In-Plane-Switching , IPS )  
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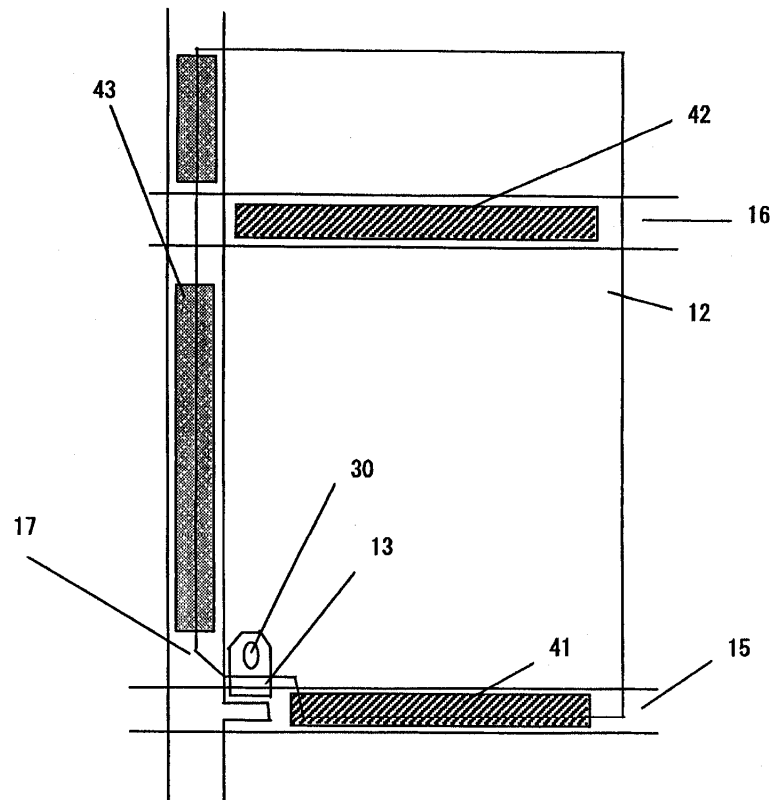
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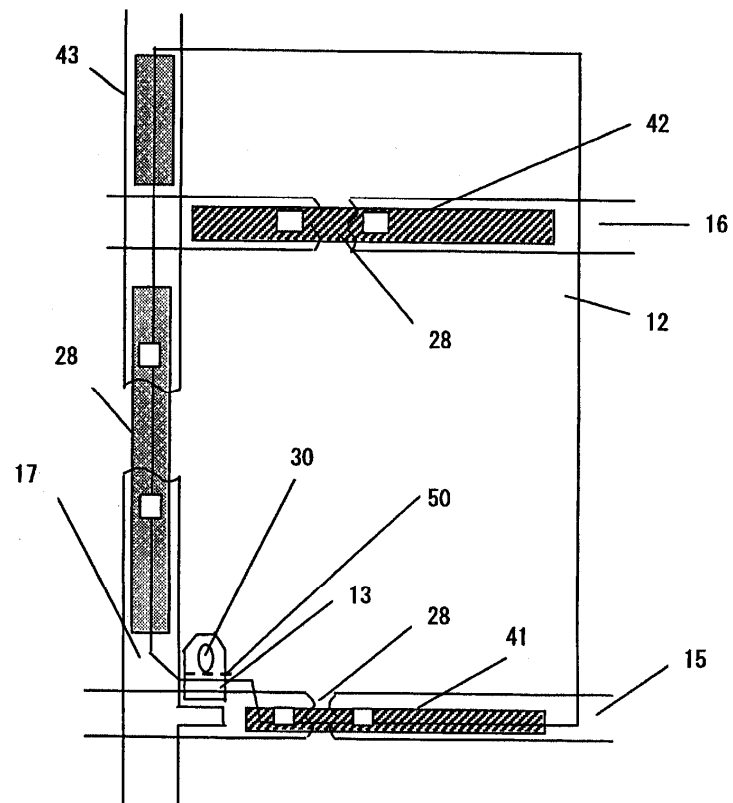
18                      21                      ,

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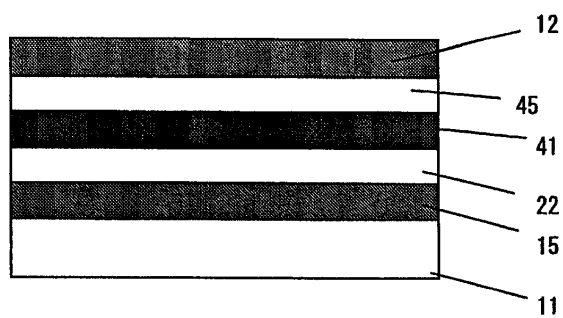


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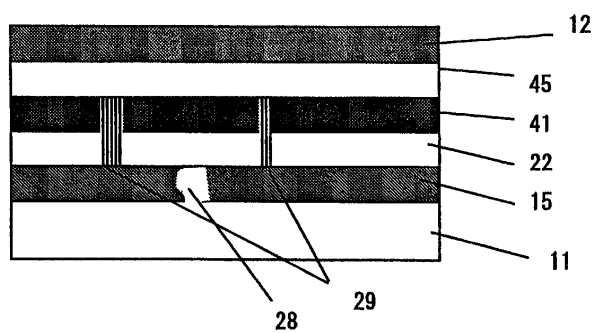


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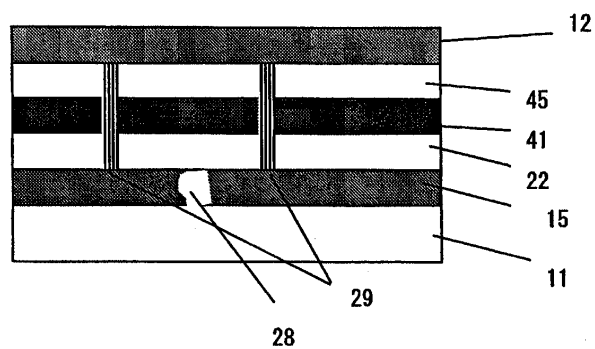
(A)



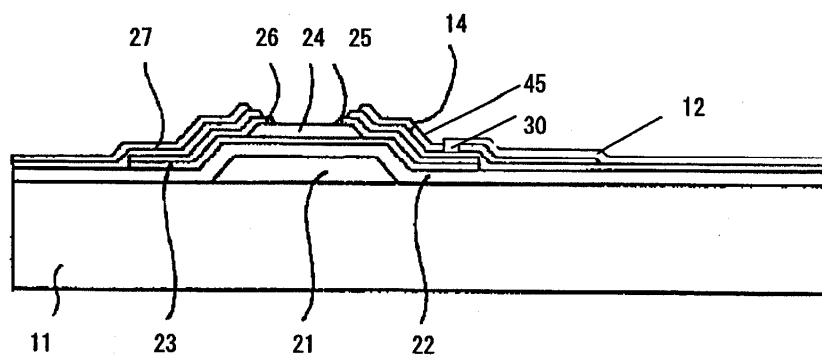
(B)



(C)

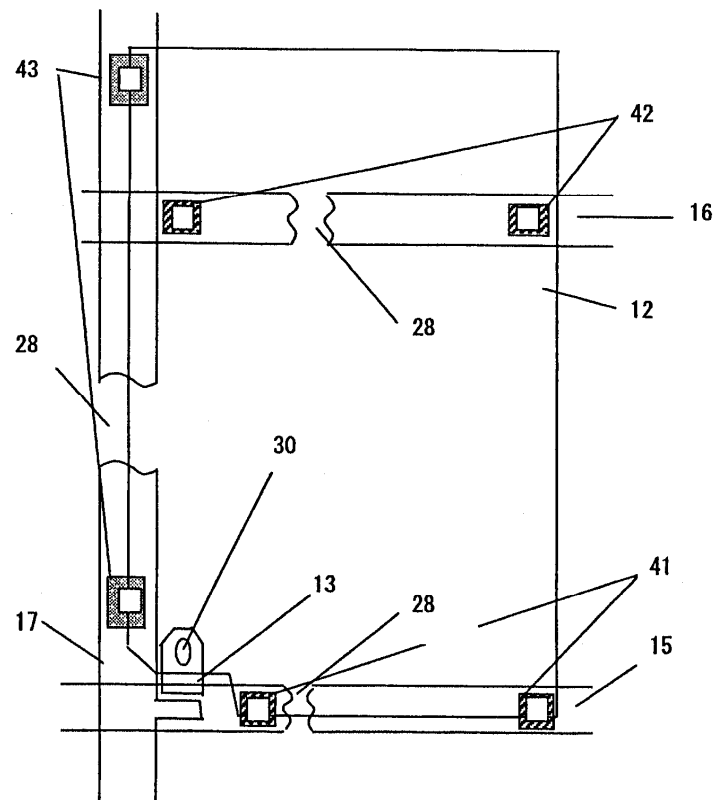


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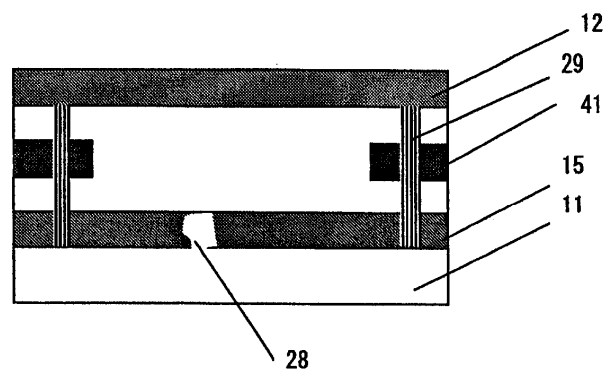




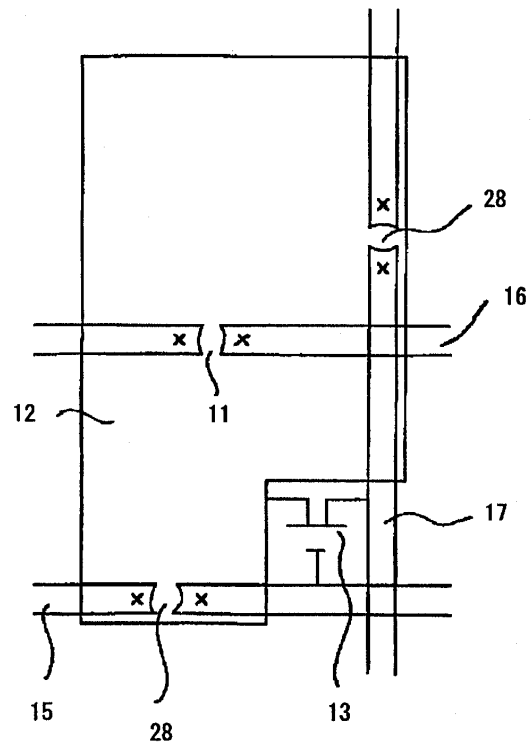
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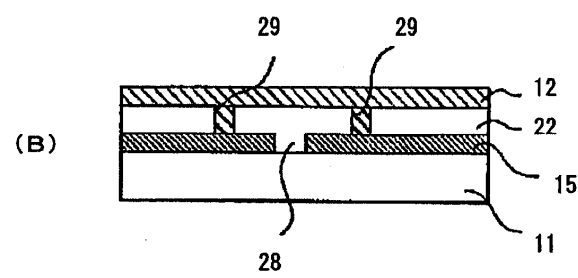
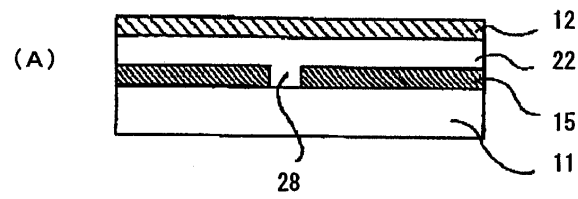
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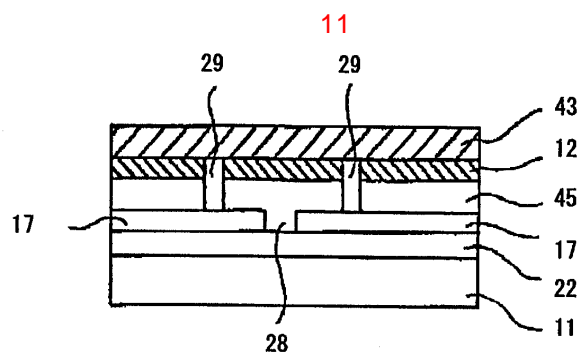
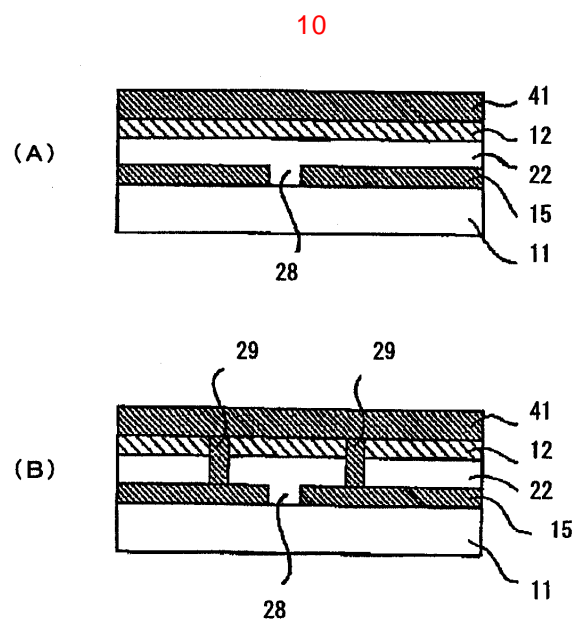
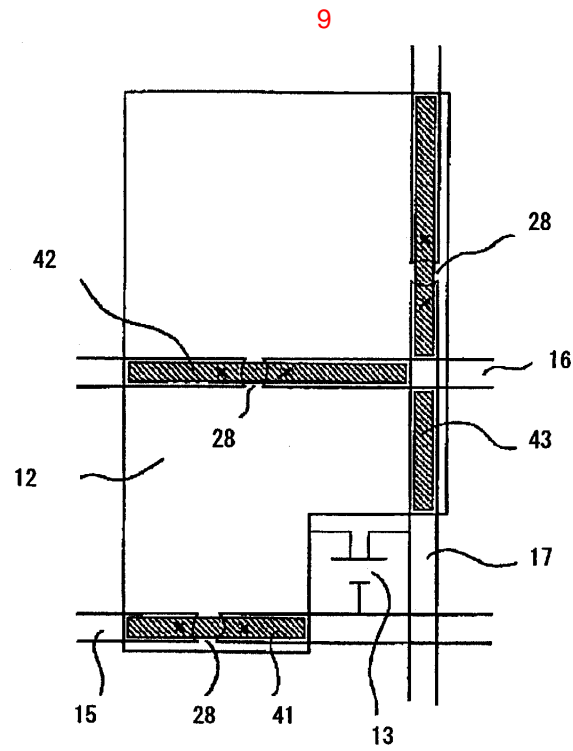


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专利名称(译)	显示装置和显示装置的断开方法		
公开(公告)号	<a href="#">KR1020040010118A</a>	公开(公告)日	2004-01-31
申请号	KR1020030040290	申请日	2003-06-20
申请(专利权)人(译)	提升者显示的激光炮的鼻子		
[标]发明人	WATAMURA SHIGEKI		
发明人	와타무라시게끼		
IPC分类号	G02F1/1343 G02F1/1362 G02F1/1368 H01L21/3205 H01L21/77 H01L21/84 H01L23/52 H01L27/12 H01L29/786		
CPC分类号	G02F1/136259 G02F2001/136263 G02F2001/136272 H01L27/12 H01L27/124		
优先权	2002213335 2002-07-23 JP		
其他公开文献	KR100750548B1		
外部链接	<a href="#">Espacenet</a>		

#### 摘要(译)

( 本发明要解决的问题 ) 本发明提供一种能够修复布线的断开而不会导致显示质量劣化的显示装置和修复布线的方法。 根据本发明的液晶显示装置包括形成在基板1上的多条栅极信号线15和形成在栅极信号线15上的栅极绝缘膜22。栅极绝缘膜22夹在源极信号布线17和栅极信号布线15之间，以形成栅极单断开导体层41。绝缘层45和像素电极12形成在源极信号线17和栅极线断开导电层41上。用于栅极断裂的两个或更多个导电断裂层41电连接到栅极信号互连15。栅极信号断裂导电层41形成为不接触源极信号布线17， 3 指数方面 显示单元，断开恢复

