

(19)
(12)

(KR)
(A)

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(72) 43-810/5

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(74)
:

(54)

alignment LC with Chiral dopant) , (chiral dopant)가 VAC(Vertical A

, 가
가

9

1

2 1

3 1

4 2

5 2 ,
 6 가 , ,
 7 VAC , ,
 8 VA VAC T-V ,
 9 ,
 10a 10b 9 - ` ,
 11 T-V ,
 12a 12c .

< >

100 : 1 150 :
 102 : 2
 104 : 106 :
 108 : 110 :
 112 : 114 :
 116 : 120a,b,c :
 126 : 1 128 : 2
 130 : 150 :

, VAC(Vertical Alignment with Chiral dopant)

가 , 가 가
 가 , 가
 가 , 가

1

(51) (6) (7) (8)가
 (8) (9) (5) (P) (5)
 (17) (T) (22)
 (22) (T)가 (matrix type)
 가 (12) (24)
 (P) (17) (12) (24) (P)
 (indium-tin-oxide : ITO)
 (T) (17)
 (12) (T) 1
 (24) (T) 2
 가

(multi-domain) (lateral electric field) (negativ)
 e LC) 가 (Vertical Alignment) IPS (negativ)
 VA

VA TN(Twisted Nematic)
 100% 50% TN 50ms VA 30ms
 , VA
 가 ()

2 VA , 3

() (6) (22) (6) (7) 1 (22) 2 (5)
 (9) (9) (17) 가 (9)
 (17) 가 (9) (17) 가 (9)
 , VA () , 3
 (P1,P2,P2) 가 VA (slit) (hole) (multi-domain)

(hole) 가 USP 6100953 .
 , 4 5 .
 , 4 2 () , 5
 , (5) (6) (7)가 , (7)
 (30)
 (30) (E) 가 (A,B)
 5 , (A,B,C) , 가
 , 가 VA 가 가 .
 , 6
 (50) 2 , () (52) , 가 1
 , C D (52) (11) 가 1
 (50) 2 (52) 가 .
 Vertical Alignment with Chiral dopant) 3 가 , VA (Chiral dopant) VAC(
 7 VA , 1 (50) 2 (52)
 , VAC (twist)
 , C D (11) 가
 , 8 가 VA VAC T-V ()
 , (62) VAC (60)가, 가 VA
 VA VAC 가
 가 가
 가 VAC

2 ; 1 ; 2 ; 1 2 ; 1
 ; ; 2 1, 2 ; 1 2 ;
 가 ; 가 . ,
 ,
 -- --
 VAC ,
 .
 9 VAC .
 00) 2 (102) 가 1 1 (100) 2 2 (102) , 1 (1
 1 (100) 2 (102) 1 (100)
 (106) , (104) (104) , (104) (P)
 (114) (112) (114) (116) (T) , (108) (P) (110)
 2 (102) (120a,120b,120c) , (1
 122) , (102) (130) .
 , 1 (100) 2 (102) 가
 (140) .
 (120a,120b,120c) (126,128) (150)
 , (150) (126,128) (127a,127b) .
 , (150) 가 (150) (120a,120b,120c)
 , 10a 10b , .
 10a 10b 9 - ` .
 , 10a 10b (102) 9 (104)
 (106) (T) , (122) ,
 (122)가 (100) .
 , (160b) (160a)
 , (160a) (160b) (9 126,128)
 ,
 11 , VAC VAC 가

11 (,) .
, (162) 가 (160) VAC
가 VAC
, (164)

11 가 ,

, 12a 12b 12c .
12a 12b 12c , (150a,150b,150c)
가 , .

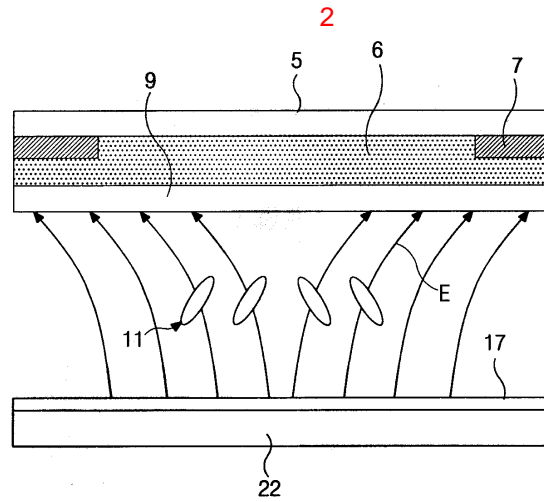
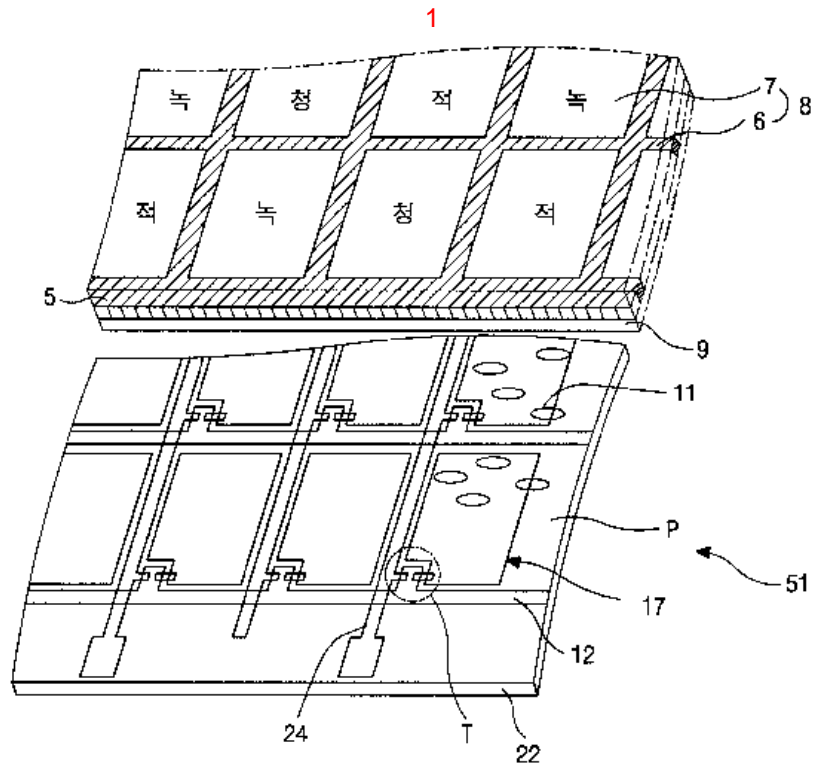
, VAC , 가 .

(57)

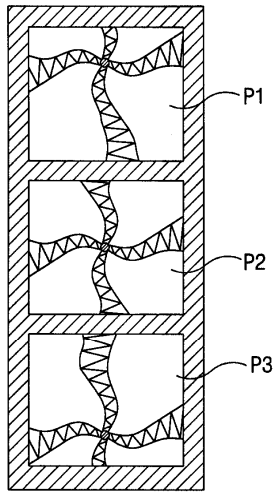
1. 1 2 ;
1 2 1 , 2 ;
1 ;
;
2 1, 2 ;
;
1 2 , 가 가

2. 1 ,

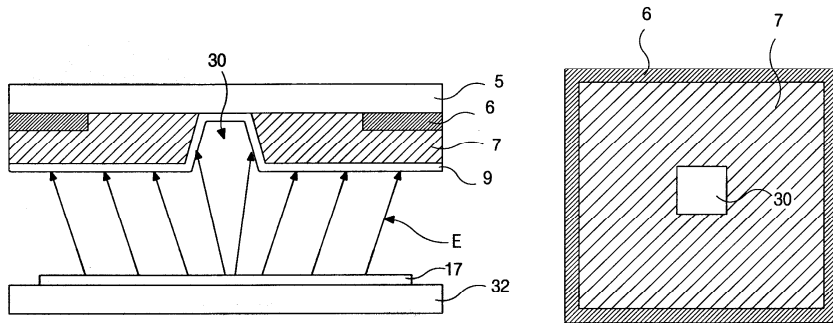
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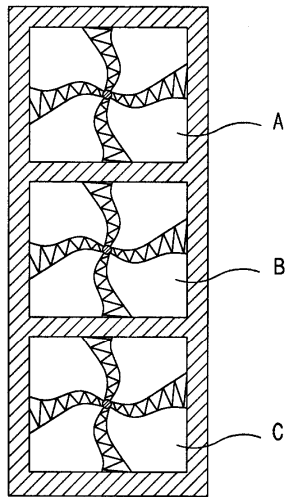
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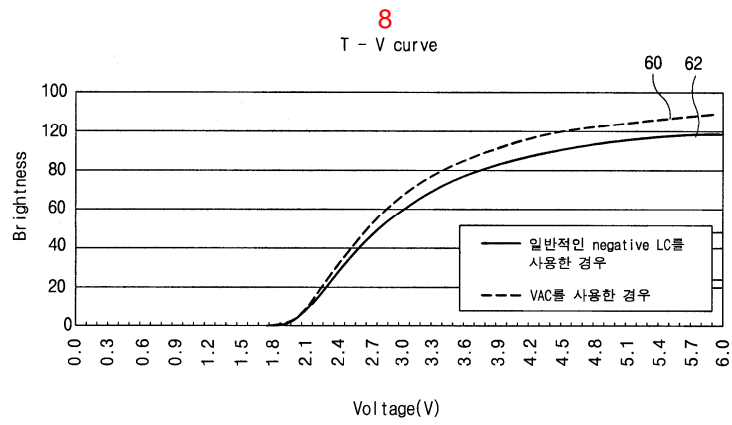
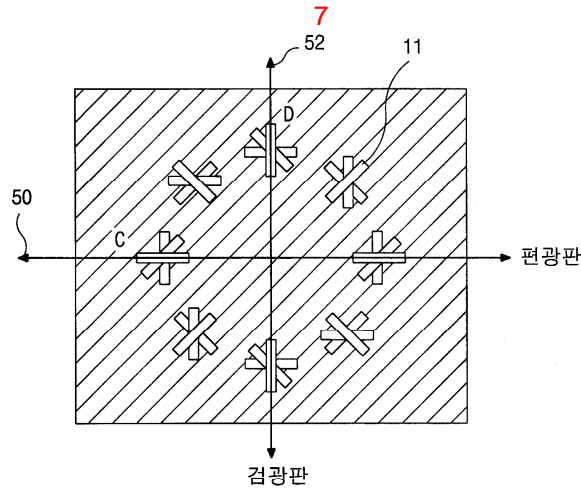
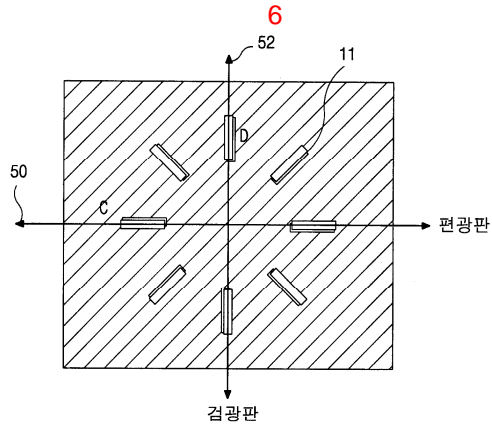


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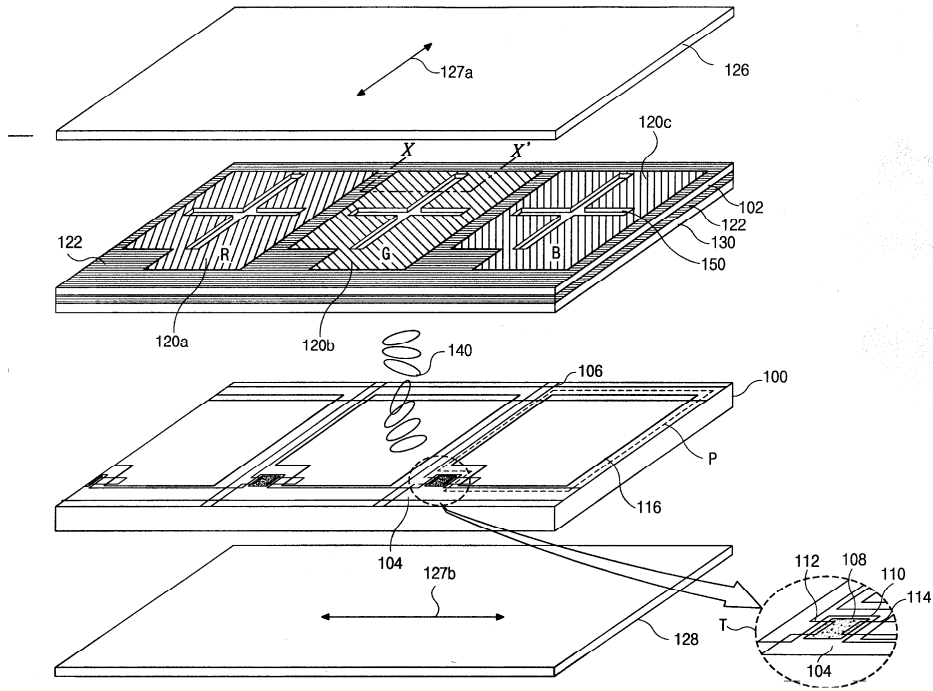


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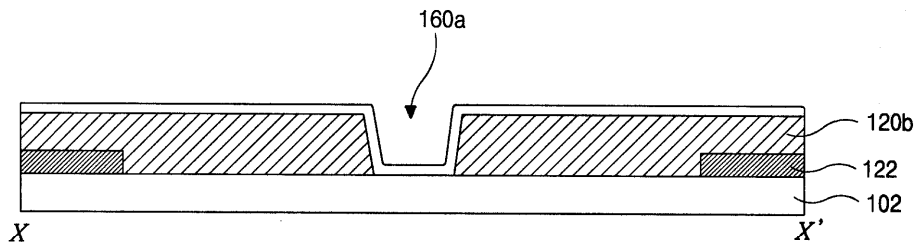




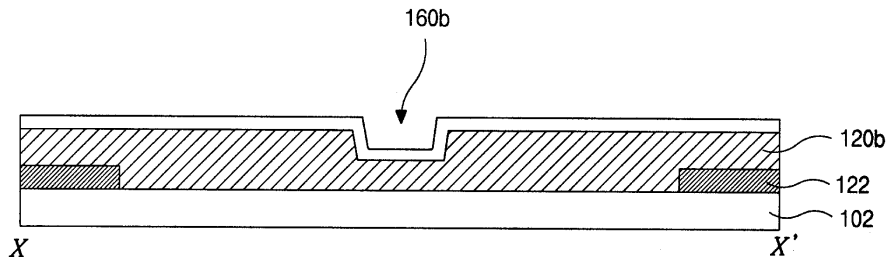
9



10a

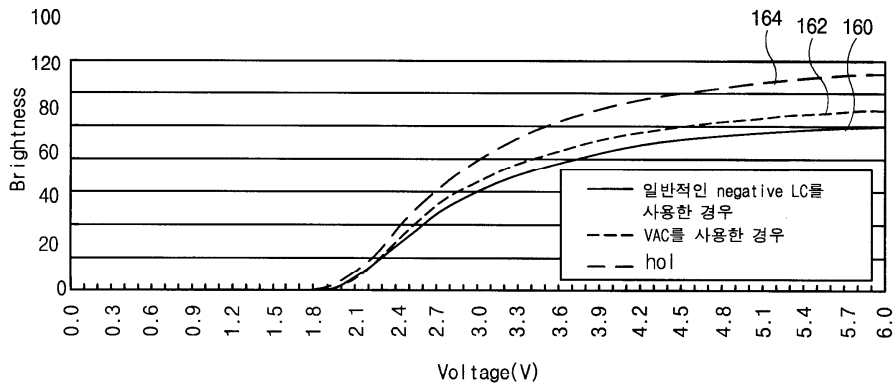


10b

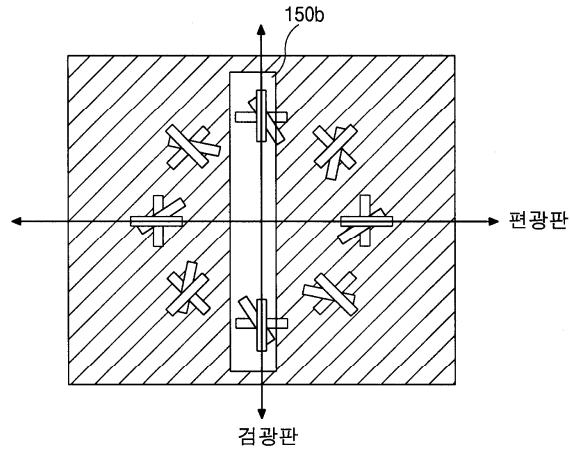


11

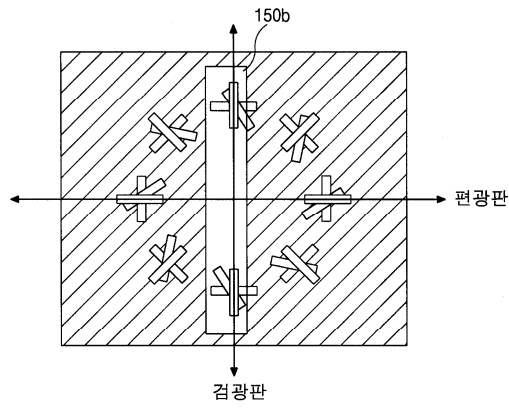
T - V curve



12a



12b



12c

