

(19)
(12)

(KR)
(A)

(51) 。 Int. Cl.7
G02F 1/136

(11)
(43)

10-2005-0001936
2005 01 07

(21) 10-2003-0042942
(22) 2003 06 28

(71) . 20

(72) 394-22 502

1 101 210

(74)

:

(54)

,

.

;

1

;

;

2

.

4

1

2 1

3a 3d 2

4 1

5a 5c 4

6 2

7 6

8a 8b

1

9a 9b

2

10a 10b

3

11a 11b

4

< >

2, 102 : 4, 104 :

6, 106 : 8 :

10, 110 : 12, 112 :

14, 114 : 16 : 1

18, 118 : 20, 120 :

22, 122 : 24 : 2

26, 126 : 28, 128 :

30 : 3 32, 132 :

34, 134 : 38 : 4

40, 140 : 42, 142 :

1 , 2 1

1 2 (42) (44)

(2) (2) (18) (4) , (6) , (18)

(2) (34) (20) , (2) (26) , (4)

(16) (6) (2) (8) , (4) (10) ,

(12) , (8) (10) (12)

(14) (14) (36), (22), (4), (10)

4) (12) (10) (12) (10) (12)

(36), (22), (4), (6) (2) (12)

(48) 가 (18)

(4) (18) (50) 1 (16) (6) (12)

(18)

(18)

48) (20) (2) , (2) (44), (14) (

(22) , (22) (50)

(20) (50) 2 (24) (22)

(20) (18)

(2) (26) () (26)

(2) (28) , (44) (50) 3

(30) (28) (32)

(4) (34) () (34)

(4) (36) , (50) 4 (38)

(36) (40)

가 4

3a 3d

3a , (42)

(42)

(28) (Cr), (2), (Mo), 1 (8),

3b / (42) (44), (14), (48),
 , n+ (42) PECVD, (44),
 / 2 /
 (10), (10) (12), / (22) / (4),
 , (48) (14) n+
 , (Ashing)
 (10) / (12) (48) , (14)
 , /
 (44) (Mo), (SiOx) (SiNx) /
 (Mo alloy)
 3c / (44) 1 4 (16, 24, 30, 38)
 (50)
 / (44) PECVD (50)
 (50) 3 1 (16) (50) (12) 1 4 (16, 24,
 30, 38)) (50) (22) 3 (30) (50) 2 (24)
 (44) (36) (28) 4 (38) (50)
 (50) (94) 가 (acryl),
 BCB PFCB
 3d , (50)
 (50) 4
 (40) (18), (32),
 2) (40) , 2 (24) (18) 1 (16) (1)
 (2) (2) (2) (2) (2) (22)
 (40) 4 (38) (30) (28)
 (Indium Tin Oxide : ITO) (Tin Oxide : TO) (Indium Zi
 nc Oxide : IZO)
 (2), (2), (4), (6), (34) (26)
 (18)
 (2), (4) (6)
 (2), (4) (6)

,
.
1 ; 2 ;

1 2 1 가 1 ;
1 2
1 , 2
, 2

1 ; 2 ;
1 1 2 1 ; 가

1
1 , 2
, 2

1 ; 2 ;
;

1 2 1 가 1 ;

1 , 1 가 ,
2

가 2

가 , .
2

2 ; ;
가

1 1 1 1 ;
가

가 1 , 1 ,
2

가 2 .
가

가 2
1
1 ; 2 2

; 3 2 , 3 ; 4 ,
4

2 가 2

, 4 11
4 1
4 (142) (110) , (110) 1 (144)
(114) , (114) 2 (112) , (110) (112) (108)
, (149) (110) 1 (153) (148), (112) 2

4 (112) (110) (110) (112) (11) ,
 0) (110) (114) (110) (112) ,
 . . . , 1 1 (110)
 (112) , 4 (110)
 (110) (112) .

5a 5c 4 .
 (142) PECVD, / , n+
 . , 1 / / , n+
 . / , 5a (Mo), , (110) 1 , n+ (148)
 (Mo alloy)
 (110) 1 (148) (142) 1 , n+ , /
 , / , 2 (110) 1 , n+
 1 (144), 2 (149), (112) (142) , 2
 , 2 , 3 , 5c (110) ()
 112) (Cr), (Mo), (114), 2 (153), (108) .
 6 2 , 7 6

6 7 (142) 2 (153)
 (102) (104) , (106) ,
 (118) , (118) (126) ,
 (102) (120) , (102)
 (104) (134) .
 (106) (102) (104)
 가 (118) .
 (106) (102) (108) , (104) (11
 0) , (118) (112) , (110) (112)
 (114) .
 (112) 1 (144) 2 (149) (110) .
 (102) (108) (114) 2 (153) (110)
 (112) , (114) 2 (153) (102)

) (110) , 1 (114) 1 (148) , (112) 2 (149)
 , (148) (104) .
 , (106) 가 (142) (106)가 (10
 , (106)가 (118) , 5~10%

6)가
 가

(118) (106) (112) (118)

18) (1) (120) (118) (122) (122) (114)

2 (118) (102) (120)

(102) (126) () (126)

(102) (128) (128)

(132) (126) (142) (128)

2 (144) (114)

(104) (134) () (134)

(104) (136) (136) 1

(148) , 1 (148) (136) (140)

(134) (126)

(102), (104), (106), (118)

(106) (110) (112) (106)가

가

8a 8b 1

(142) PECVD, / , n+

1 , 8b (110) / (104) ,

(104) (136) (104) (1)

36) 1 (148) / (Mo), , (

Mo alloy)

9a 9c 2

(104), (136), 1 (148) (142) 1 , n+

1 / , n+ , / , 2

(110) , n+ 1 (144), 2 (148), 9b

(122) (102) 1 (144) 2 (144) 2 (149),

10a 10b 3

1 (144), 2 (148), (112), (122) (142)

, 2 , 2 , 3

2 (153), (102), (128) 10b (Cr), (114),

(Mo),

11a 11b 4

(114), 2 (153), (102), (132) (142)

(118),⁴ (132), (140)
 (Indium Zinc Oxide : IZO) (Indium Tin Oxide : ITO) (Tin Oxide : TO)

가 4

가

가 가

가

(57)

1.

; 1 ; ;

2

2.

1 , 1 1 ; 가 1 2

3.

1 , 1

4.

1 , 1 2

5.

1 ,
 , 2 .

6. ;
 1 ;
 ;
 2 .

7. ,
 1 1 1 ;
 1 2 가 .

8. ,
 7 1 .

9. ,
 7 1 , 2 .

10. ,
 7 , 2 .

11. ;
 1 ;
 ;
 2 ;

12. ,
 11 1 1 ;
 1 2 가 .

12 13. ,

1 .

11 14. ,

1 , 1 가 ,

11 15. ,

2 .

15 16. ,

가 2 .

11 17. ,

가 , .

17 18. ,

2

19.

1

;

;

;

2

;

가

19 20. ,

1

1

;

1

2

가

21.

19 ,

1

22.

19 ,

1

1

가

23.

19 ,

2

24.

19 ,

2

가

25.

19 ,

, 가

26.

25 ,

2

가

27.

1

, 1

1

, ;

2

2

;

, 2

3

2

,

3

;

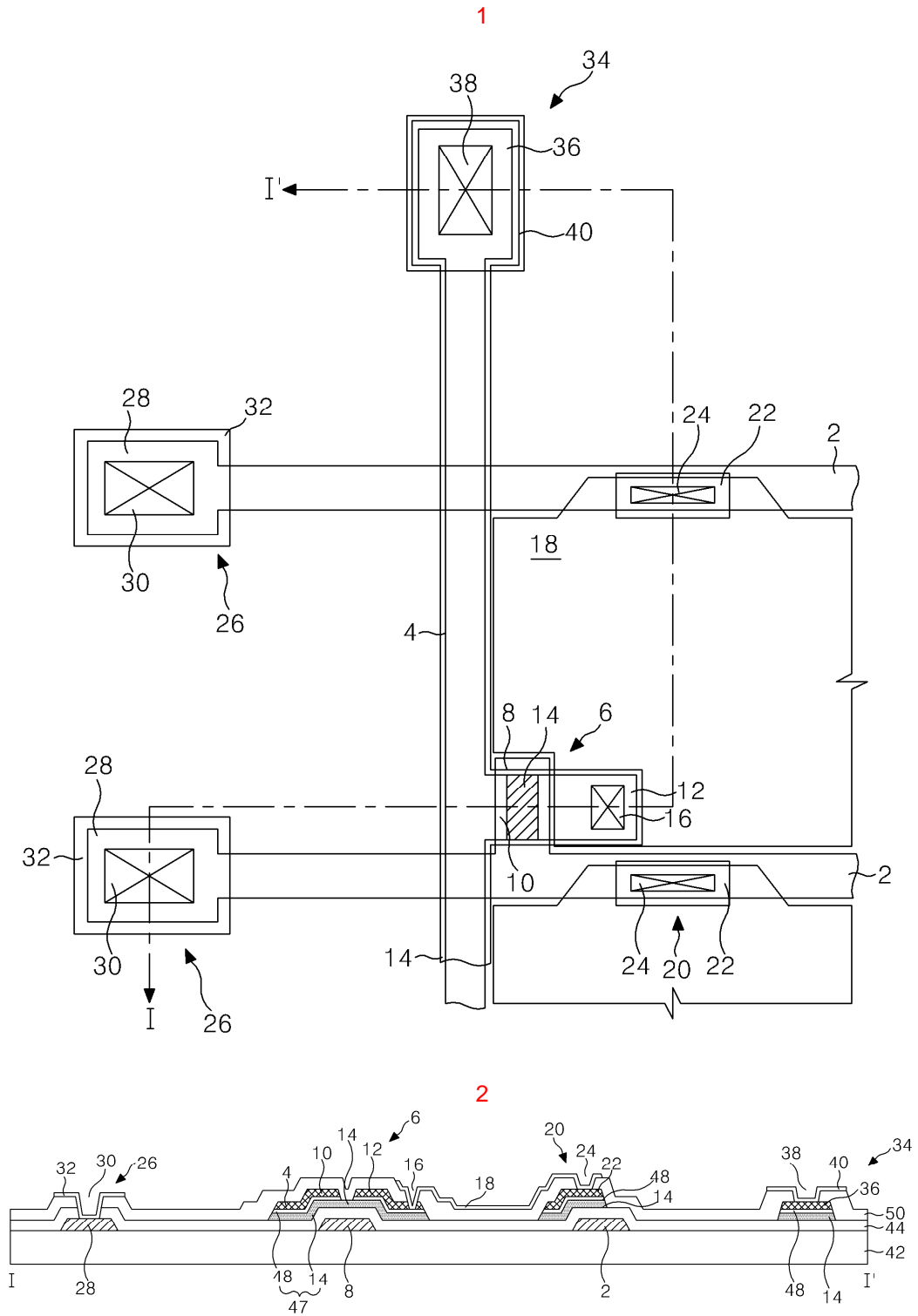
4

,

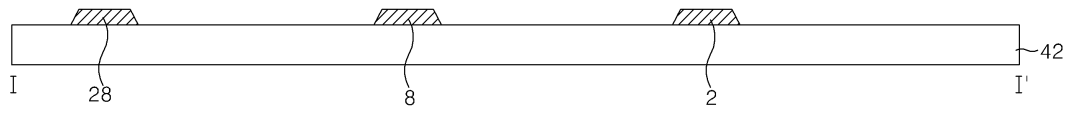
4

28.

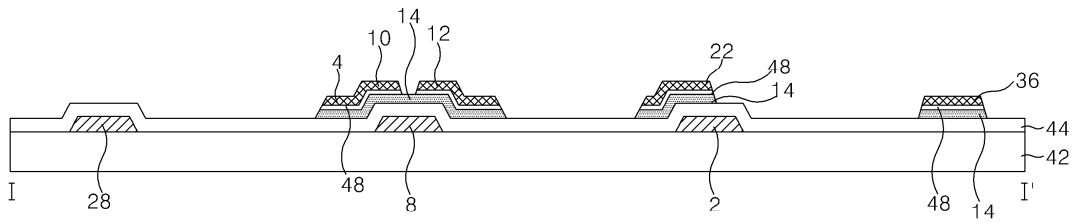
27 ,



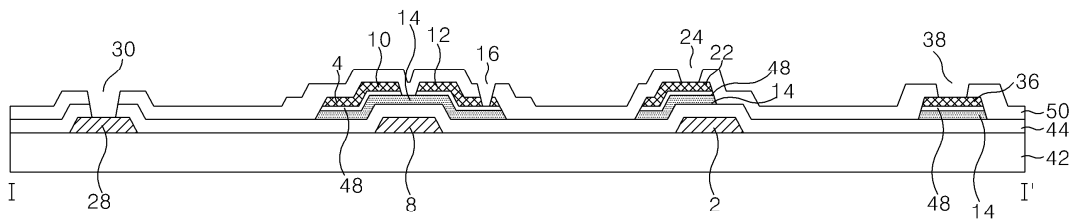
3a



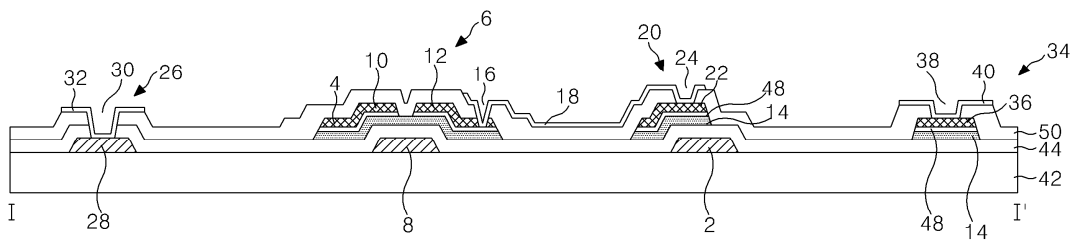
3b



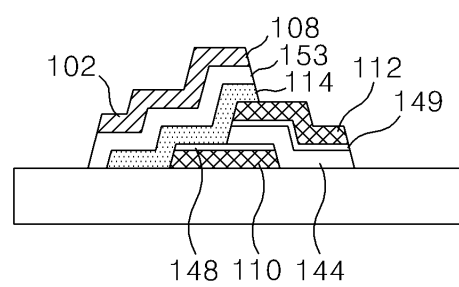
3c



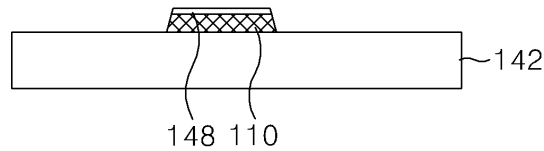
3d

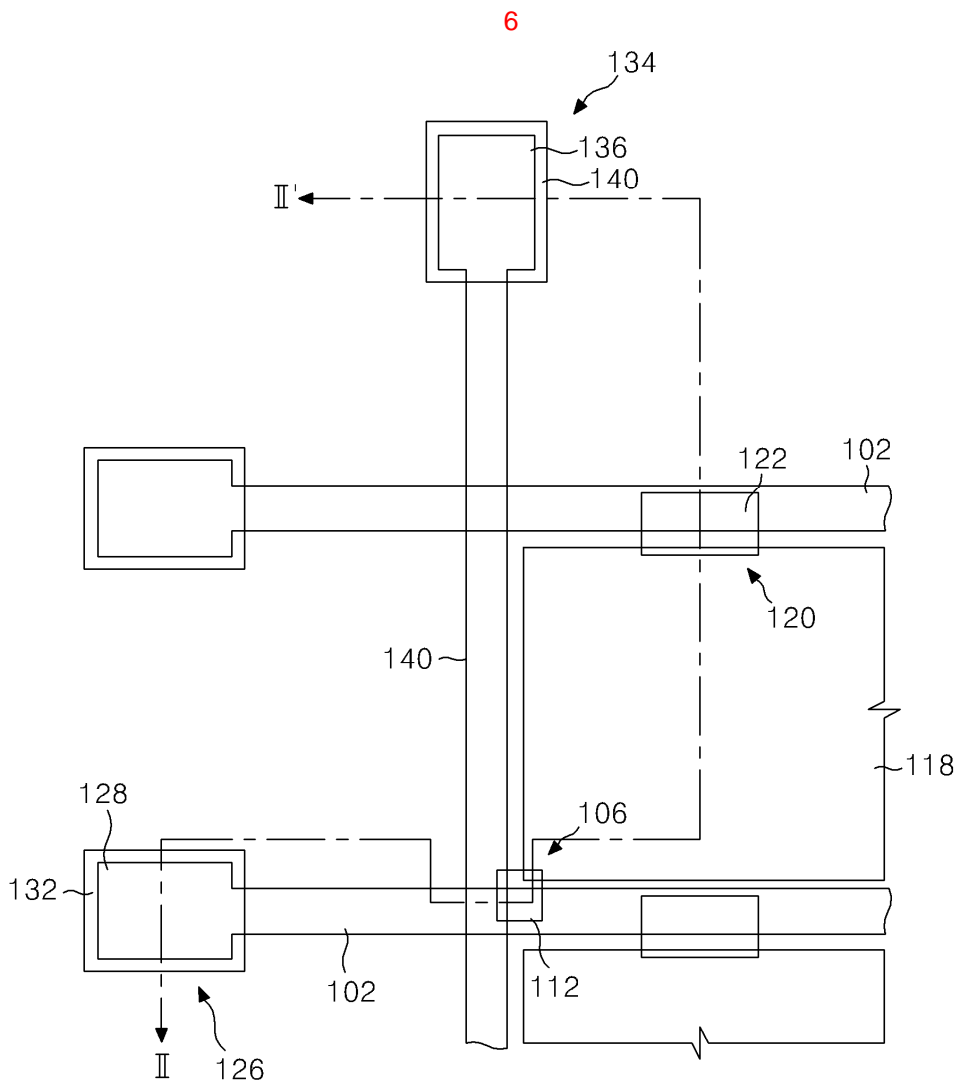
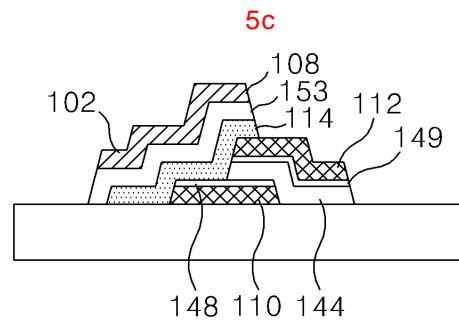
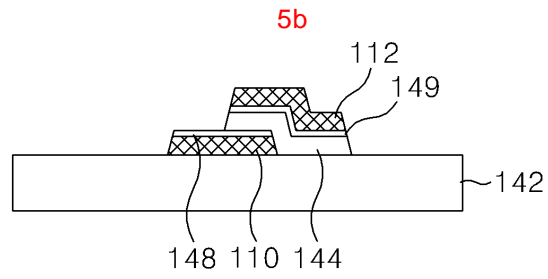


4

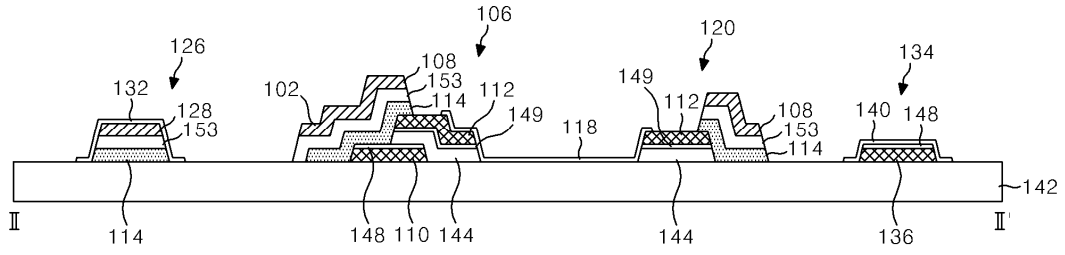


5a

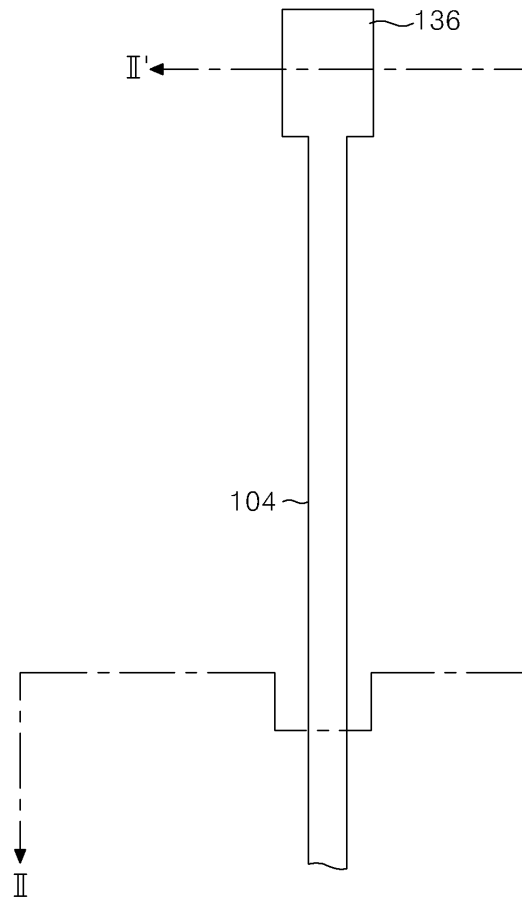




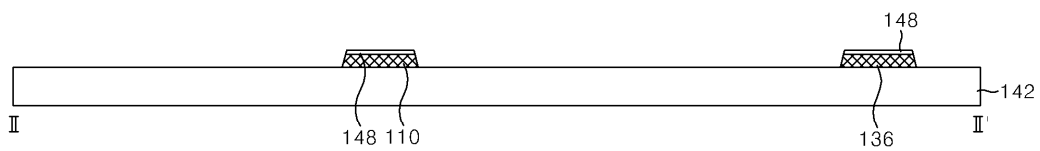
7



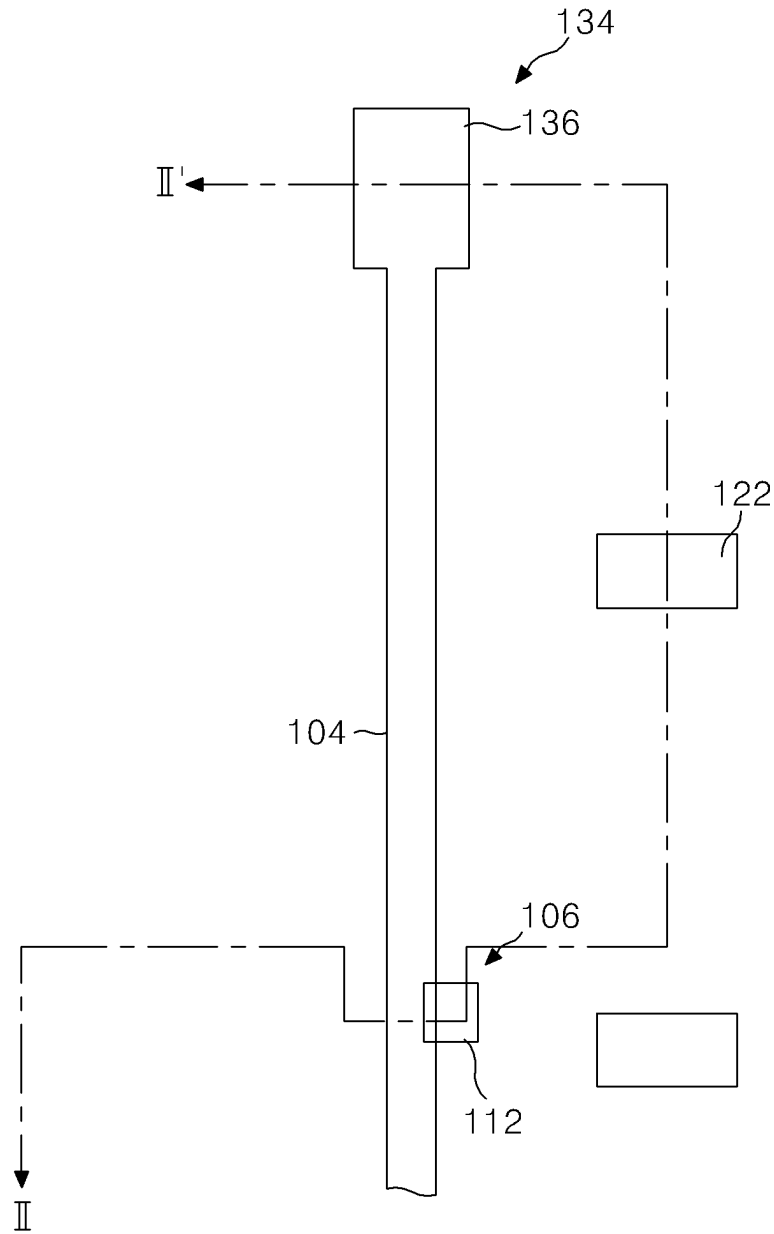
8a



8b



9a



9b

