

(19)
(12)

(KR)
(A)

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G02F 1/136

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(43)

2001 - 0110165
2001 12 12

(21) 10 - 2001 - 0030485
(22) 2001 05 31

(30) 2000 - 166201 2000 06 02 (JP)

(71) 가 가
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(72) 가
716 - 1
931
716 - 1
1 - 33 - 19

(74)

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(54)

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10 : (,)

SUB 1: AS :

GL : DL :

CL : TFT : TFT

Cadd : PIX :

가

, 가 y x
x y

가

ITO(Indium - Tin - Oxide)

11 - 101992

11 - 242226

가

가

가

가

가

가

1 , 2 ,
3

가

가

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3

가

(SUB 1) (SUB 1) ()

(SUB 1) x y
(GL) y (DL)

(13)

(GL) (GL) x
(CL) (CL) (Cadd)

(CT)

(GL) (TFT) (TFT) (PIX) (PIX)
(TFT) (PIX) (DL) 가 (Cadd)가

(GL) () (SUB 1) 가
(15) (15)

(DL) () (SUB 1) 가
(14)

(DL) (一端)() (Vcom)

(Vcom) (SUB 1) (18, 19, 100) (SUB 1)
1) ()

16 (DL) 17 (19, 100)
() (15) (14)

< < > >

2 | - | 1

2 3 (13) 가

1 2 (SUB 1) SiO SiN
(SIO) (SIO) (SUB 1)

(TFT)

(AS) (SIO) (CVD) (AS) (Si)
(AS) (amor phouse)

(AS) (GL) 가
 ()
 (AS) (TFT) 가
 (AS) (Cadd)
 SiN (AS) 1 (GI) (SUB 1) (AS) SiO
 L) 1 (GI) (TFT) (G
 (DL) (Cadd)
 , 1 (GI) x y (GL)
 (GL) (DL)
 , (GL) Al, Cr, Ta, TiW
 (GL) TiW가
 (GL) 가 (AS)
 (GL) (GL) (TFT) (GT)
 AS) (GL) 1 (GI) ((TFT)
 (GT) (直下) (Cadd) 가
 , 1 (GI) x (CL)
 (CL) (CL)((CT)) (GL) (CT)
 2 (IN) (GL) SiO2 SiN (CL)((CT)) 1 (GI)
 , 2 (IN) ()
 (AI) (10)
 (10) (TFT) (AS) 2 (IN) 1 (GI)
 (CH)
 (10) (AS) (TFT)
 (AS) (TFT) (CH) (GT) (DL)
 , (10) (CT)
 , (10) (Cadd)

(Cadd) (TFT) (CT) (CT)

(AS) (GI) 1 2 (IN) 1 2 가

(CT) 2 (10) (1). (IN) 2 가

(IN) y x (DL)

(DL) (GL)

(DL) , TiW , MoSi

가 400 .

(DL) 가 2 (IN) (GI) (CH)

(TFT) (DL))

(DL) (10) 2 (IN) 3 (PSV)

3 (PSV) SiO SiN 가

가

3 (PSV) ITO(Indium - Tin - Oxide) (PIX)

가 3 ITO (PSV) (PIX) (10)

(PIX) (TFT) 3 (PSV)

(CH) (10)

(PIX) (10) (TFT) 가 (TFT)

(PIX) (TFT)가

(PIX) (10) (11)

(11) (10) (Al) (PIX) ITO

(MoSi) (TiW)

(PIX) (11) (10)

(PIX) (10) (10)

(11) (10) 가 (10)

(11) (11) 가

(10) (PIX)

가

(11)

(DL)

(PIX)
()

(PIX)

(SUB 1)

3 (PSV)

(10)

(PIX)

(10)

가

< < > >

4 6

1. (4(a))

(SIO)

(SUB 1)

(SIO)

(AS)

2. (4 (b))

(SUB 1)

(AS)

SiO

1

(GI)

3. (4(c))

(SUB 1)

(GL) TiW

(GL)(

(CT))

(AS) (GL)

1

(GI)

(AS)

(GT)

(GT)

가

(AS)

(GT)

(TFT)

(TFT)

(Cadd)

4. (5 (d))

(SUB 1)

(CT)

SiO

2

(IN)

(GI)

(CH)

2

(IN)

1

5. (5 (e))

(SUB 1)

TiW

(DL) (Al) (10)

6. (5 (f))

(SUB 1)

(11) (MoSi)

7. (6 (g))

(SUB 1)

(CH) (11) 3 (PSV) 3 (PSV) (CH)

8. (6(h))

(SUB 1)

ITO ITO (PIX) (PIX) (CH) (11) (10) (Cadd)

(Cadd) 가

2.

7 (b) (a) b - b (a) 2

7 2 (Cadd) (AS, CT) (10) 2 (IN)

3.

8 (b) (a) b - b (a) 2

2 1 (GL) (CT) (CT)

1 (10) (AS) (PIX)
(CH)

(Cadd) (AS) (CT) 1 1 (GI)

(PIX) (10) (11) (10) (DL)

2
가

가

가

가

가

가

(57)

1.

가

가

1 , 2 ,

2.

가

가

1 , , 2 , ,

3

3.

2 ,

3

4.

1 2 ,

5.

가

1

1

2

2

6.

5 ,

가

7.

가

가

1 , , ,

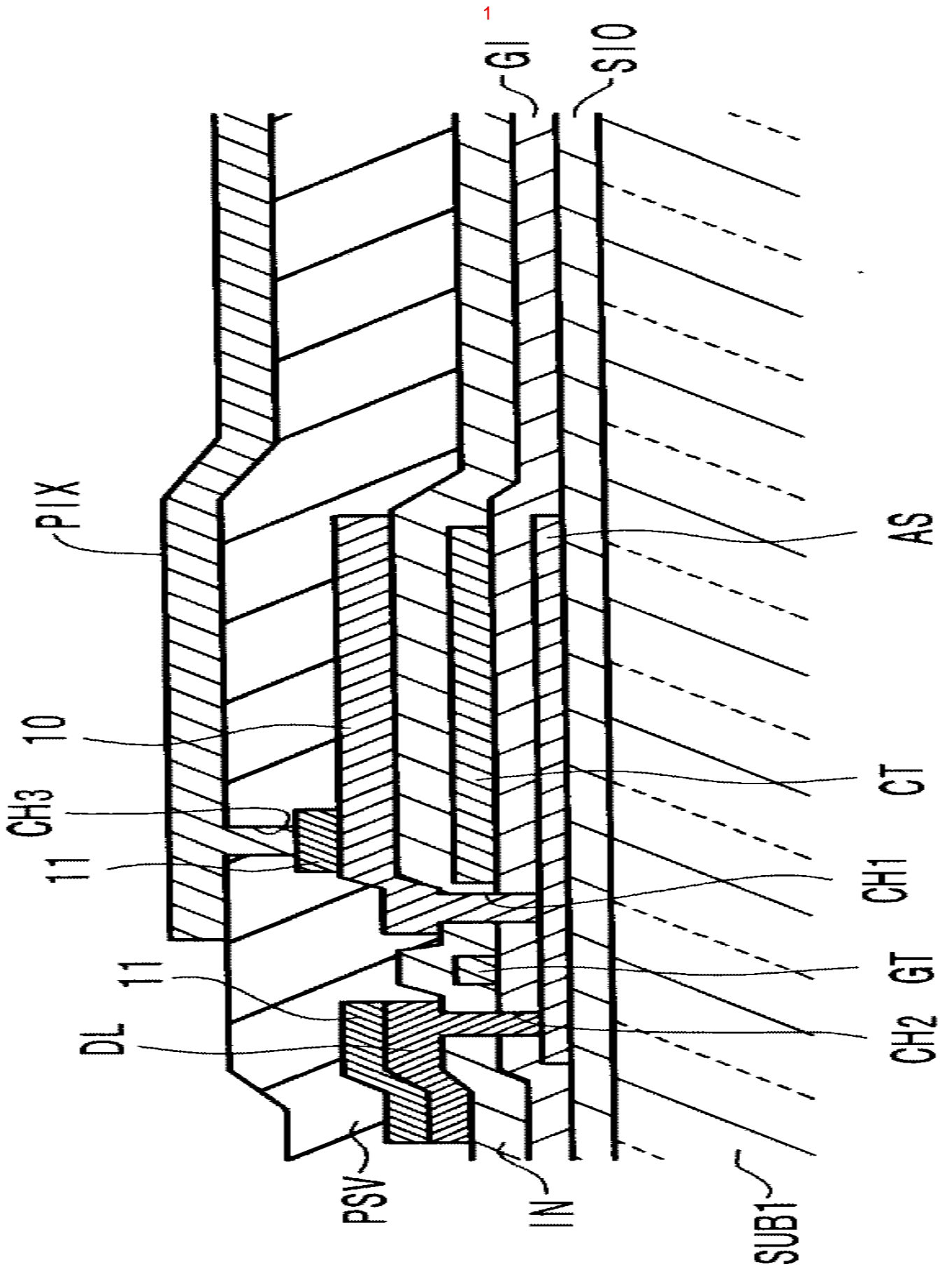
8.

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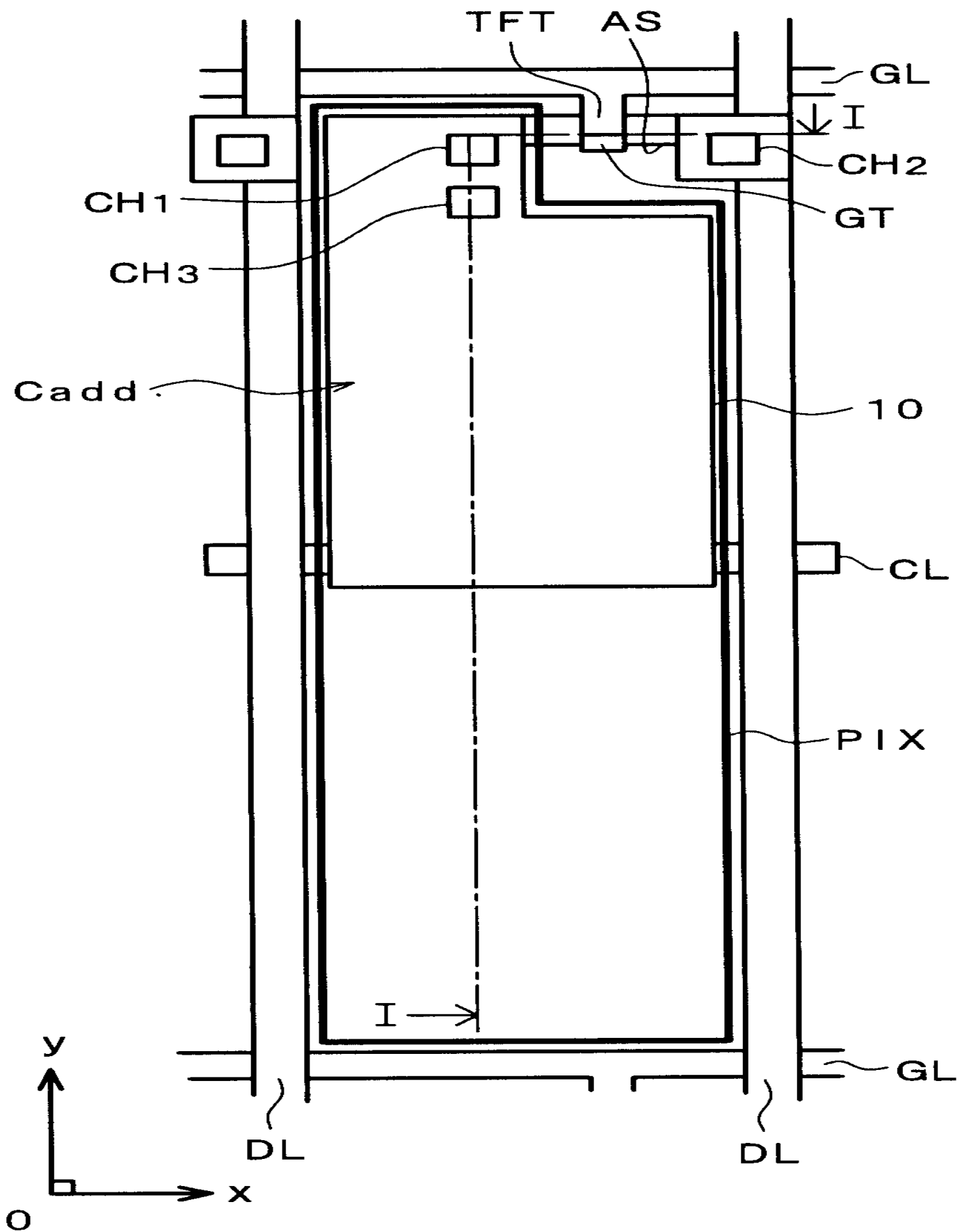
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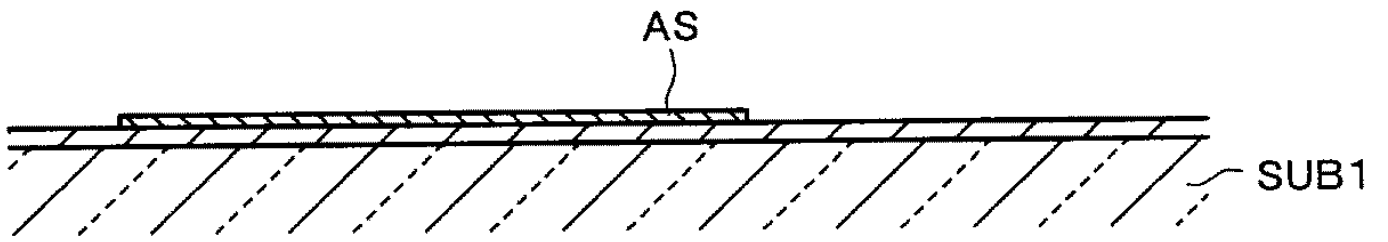


2

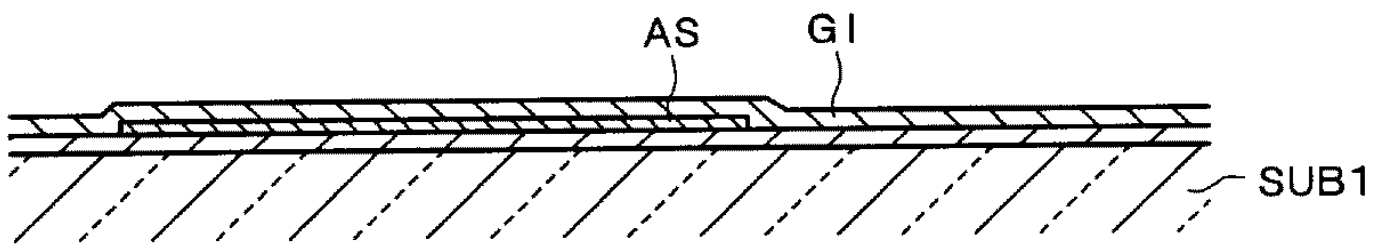


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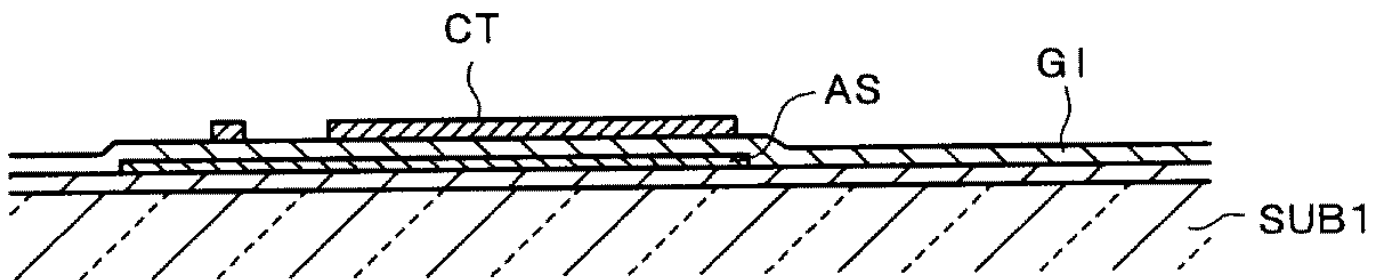
(A)



(B)

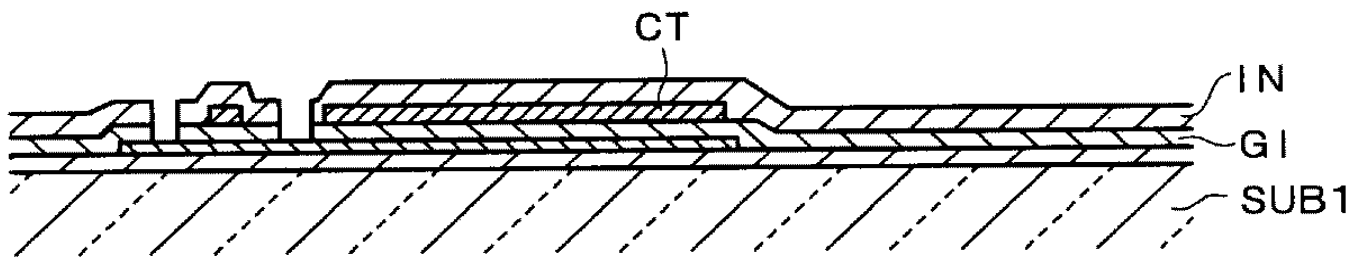


(C)

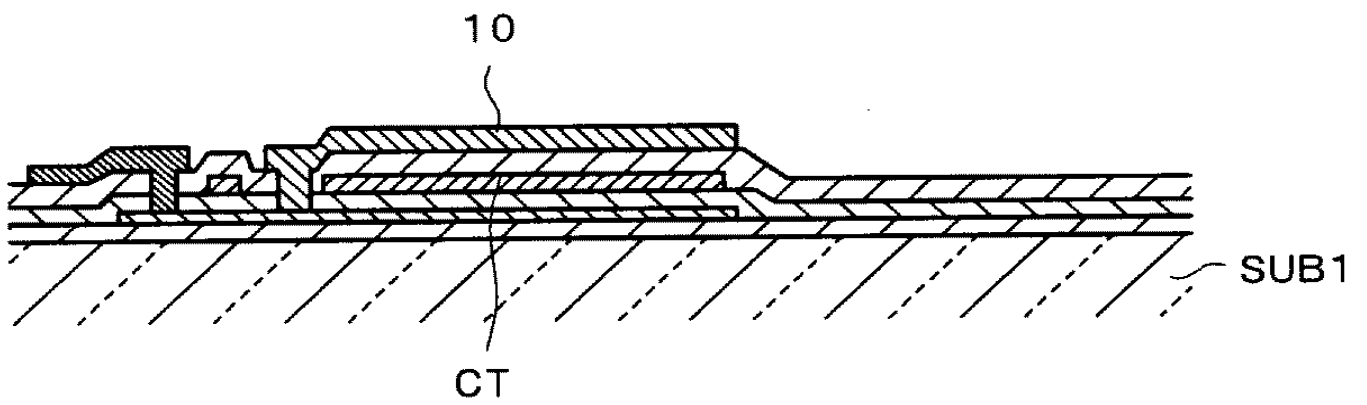


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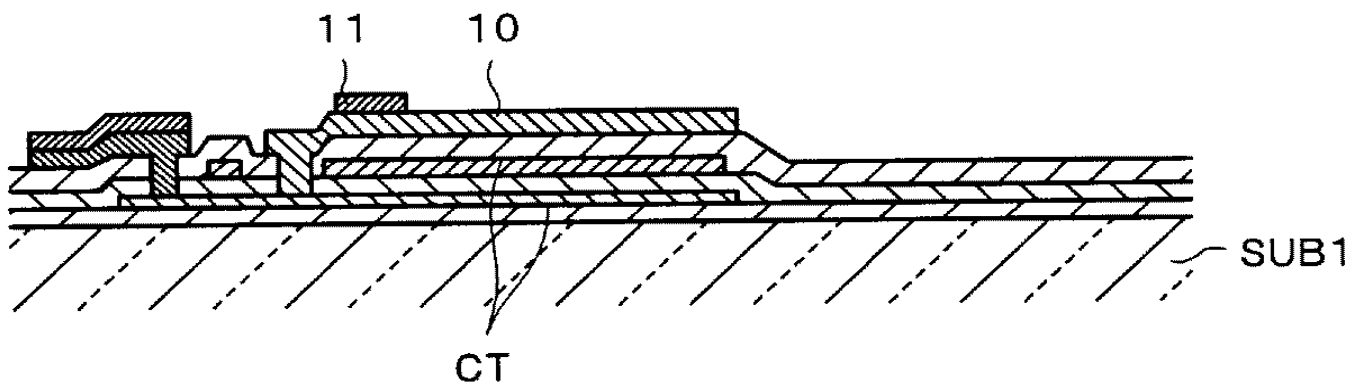
(D)



(E)

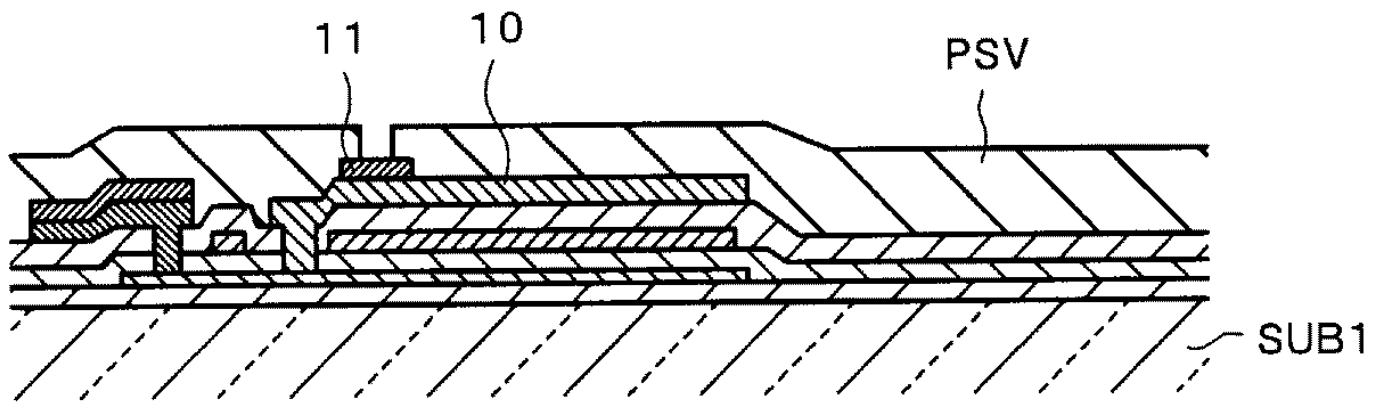


(F)

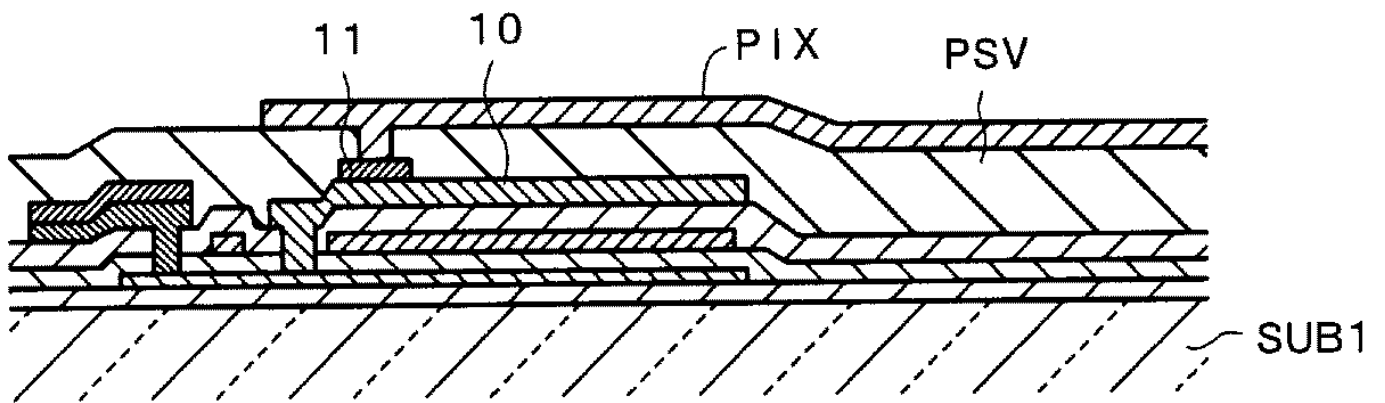


6

(G)

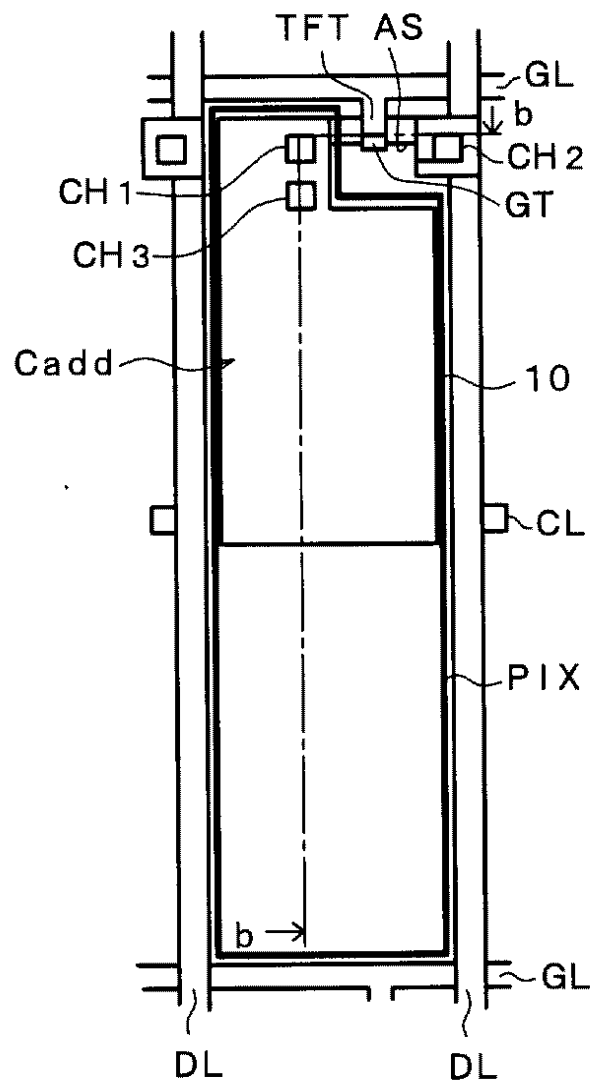


(H)

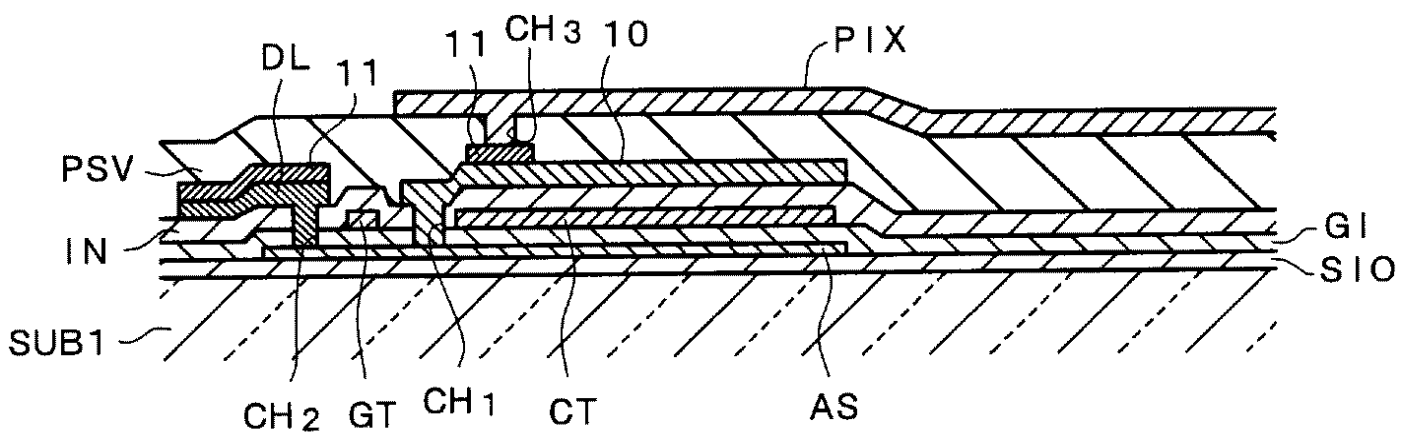


7

(A)

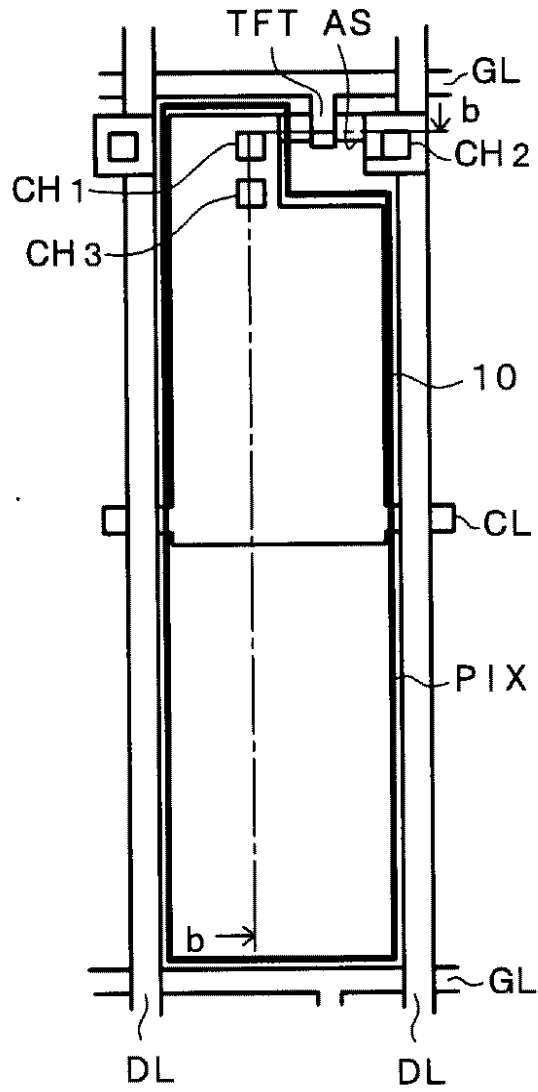


(B)



8

(A)



(B)

