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(73)

136-1

(72)

1

6-1009

177 103 1201

(74)

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(54)

CF4/Ar/O2 CF4/Ar ' 3/7 6/7 가 , CF4/O2 8/1 4/1 ' (should loss)

4c

1 2
3a 3c 2 SAC
4a 4b
4c 4d 4a SAC
< >
11,21 : 13,23 :
15,25 : 17,27 :
19,29 :

SAC 가) SAC(Self Aligned Contact, 가 SAC

0.13 μm 0.10 μm 가 SAC

SAC 가 (fail) 가 가 SAC

SAC (short)가 가 가 SAC

1 3 () () SAC

1 () () ()

1 () () ()

2600 () ()

2a 2b 1 500

4, 75 sccm Ar 5O2 CF4/Ar/O2 40 mTorr, 250 W, 20 sccm CF

3a 2b (15) (13) (11) 가 (15) 450

3b 3a (17) (19) () SAC

3b 2b (17) 3a SAC

3c (17) 3a 가 SAC

가

CF4/Ar/O2 가 CF4/O2 8/1 4/1
 CF4/Ar 3/7 6/7 , Ar 20 140 sccm O2 1
 10 sccm
 10 80 mTorr
 300 800 W
 15 45
 5 20
 (cathode back side) (He) 5 20 Torr
 2500 2700 400 600
 4a 4d
 4a
 4a () ()
 () () () ()
 () () ()
 2500 27

00 400 600
 CF4/Ar/O2 MERIE
 MERIE
 CF4/Ar 3/7 6/7
 CF4 10 60 sccm
 Ar 20 140 sccm
 CF4/O2 8/1 4/1
 O2 1 10 sccm
 10 80 mTorr
 300 800 W
 15 45
 5 20
 (cathode back side) (He) 5 20 Torr
 300 W 800 W

CF4/O2 가 8 : 1
 CF4/Ar 가 3 : 8 , Ar 80 sccm CF4 가 30 sccm
 4b 4a
 가 2b
 4c 4a (23) SAC (25)가 (21)
 (27) SAC (29)
 가
 4d 4c

SAC 가

1.

CF4/Ar/O2 CF4/Ar 가 3/7 6/7 , CF4/O2 , 8/1 4/1

2.

1 , CF4 10 60 sccm , Ar 20 140 sccm O2 1
10 sccm

3.

1 , 10 80 mTorr , 300 800 W , 15 45 , 5 20 , (cathode back side) (He) 5 20 Torr

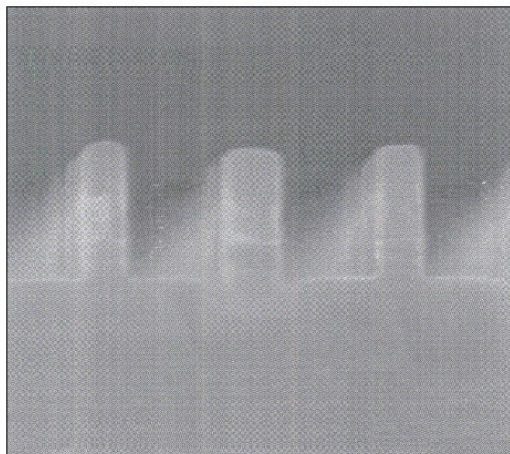
4.

1 ,

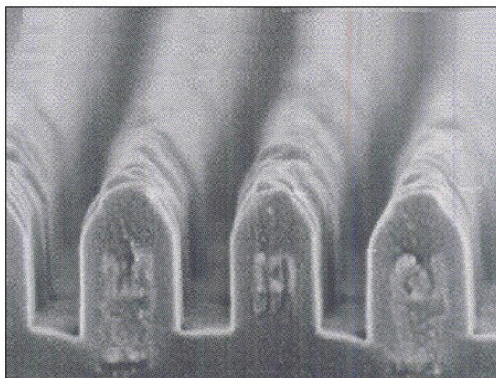
5.

1 , 2500 2700 , 400 600

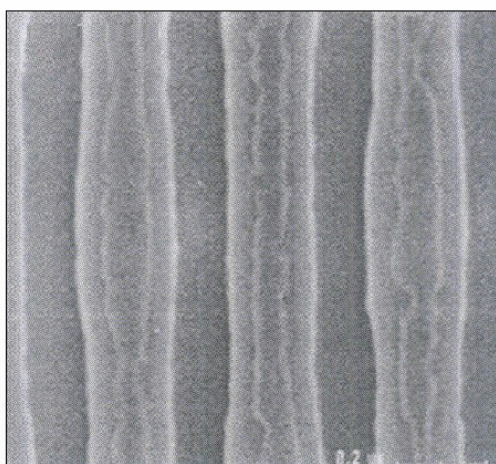
1



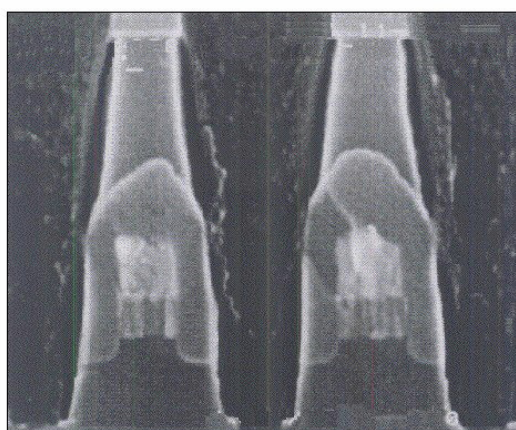
2a



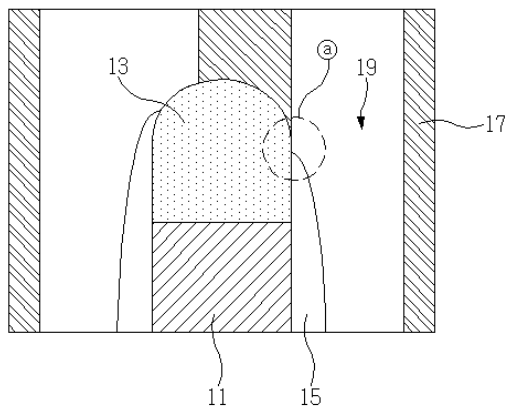
2b



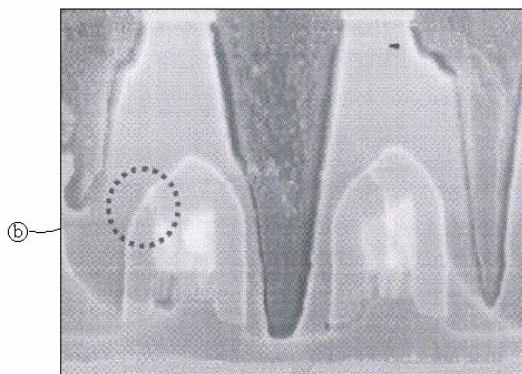
3a



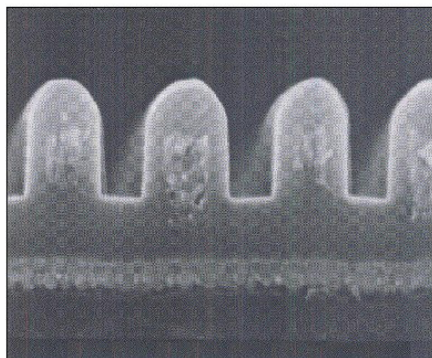
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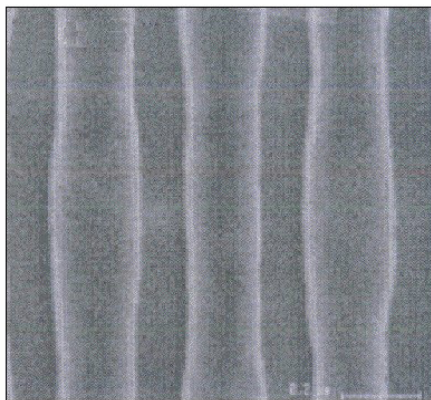
3c



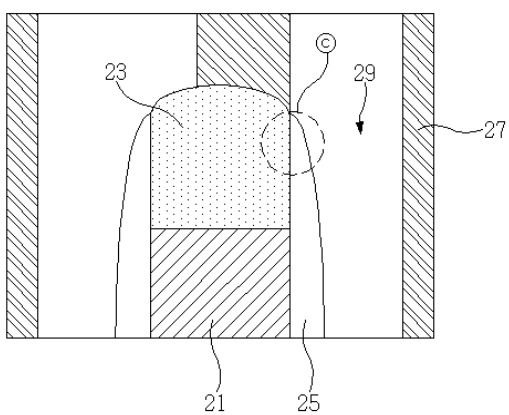
4a



4b



4c



4d

