

(19)
(12)

(KR)
(A)

(51) 。 Int. Cl.⁷
H01L 21/762

(11)
(43)

10-2004-0083191
2004 10 01

(21) 10-2003-0017763
(22) 2003 03 21

(71) 136-1

(72) 428-12

(74)
:

(54)

trench isolation) ; STI (shallow
(well punch)

2e

1a 1d

2a 2e

[]

31 : 33 :

35 : 37 :

39 : 41 :

43 : 45a : P

45b : N 47a : P

47b : N

STI(shallow trench isolation) (well punch)

가 가 가

(slope profile) 가 가

1a (11) (13) 1a (15) 1d (15)

(17)

1b (13) (17) (11) (17) (19) (15)

() (19) (19)

1c (15) (13) () CMP (21)

a) 1d (11) P (23)

N (23b) P (25a) N (25b)

(15) (13) (11) 가

1d 'A' , P N 가 가 가

;

;

;

()

,

2a 2e

(33) (35) (37) , 2a (31) (39)

Si₃N₄ , 0 200 ,

2b (37a) (39) (39) (37

33) 2c (31) (31) (37a) (41) (35) (

41) (31) (37a) (41) (35) (

er)가 , (41) Cl₂ HBr 가 (polym

가

() (41) (41)

2d (35) (33) () CMP (43)

a) N (45b) P (47a) N (47b) , 'B' (31) P (45

P N 가 (well punch) 가

(57)

1.

;

;

;

2.

1 ,

,

0 200

3.

1 ,

Si_3N_4

4.

1 ,

5.

1 ,

6.

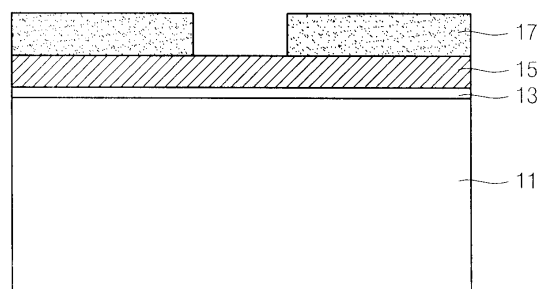
1 ,

Cl_2

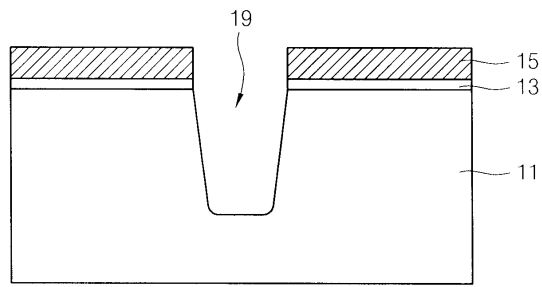
HBr 가

가

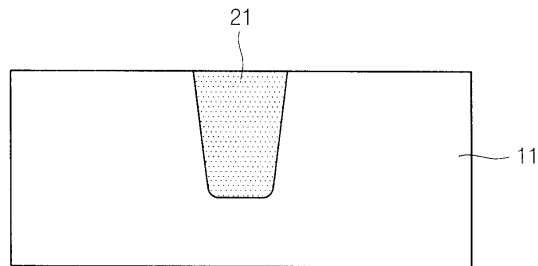
1a



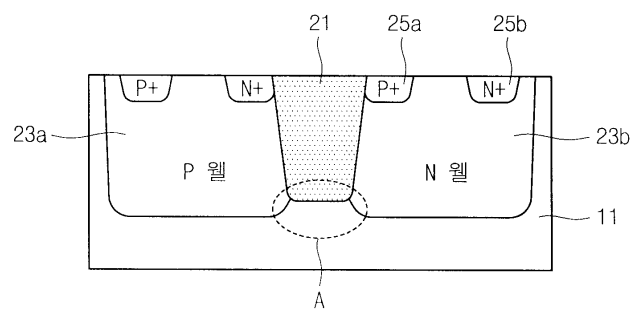
1b



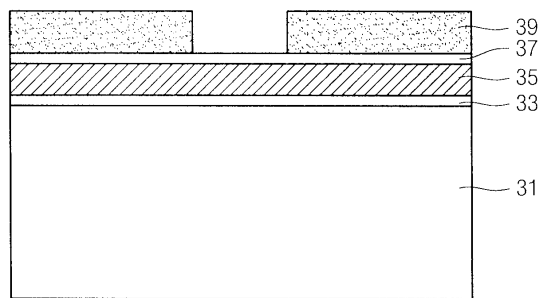
1c



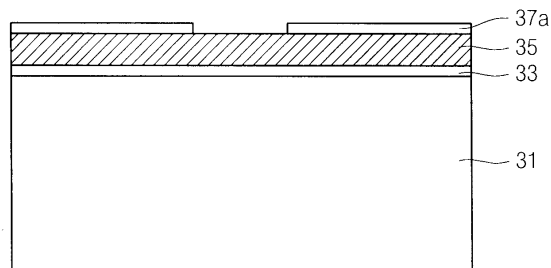
1d



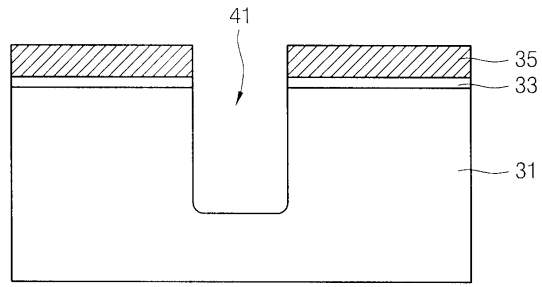
2a



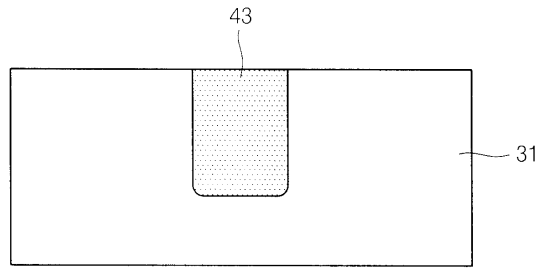
2b



2c



2d



2e

