

(19) (KR)
(12) (B1)

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(11) 10 - 0313469
(24) 2001 10 22

(21) 10 - 1992 - 0007106 (65) 1992 - 0020758
(22) 1992 04 27 (43) 1992 11 21

(30) P4113755.8 1991 04 26 (DE)

(73) 80333 2
(72) , - 8 83 - - 9

(74)

:

(54) MOS

MOS , 1 (1) ,
(12) 1 (5) (13) (14)

1

[]

MOS

[]

1 7

- a) 1 가 ;

b) 가 ;

c) , 1 ;

d) 1 1 1 2 ;

e) 2 1 2 2 ;

f) 3 1 , 2 3 MOS ;

g) ;

h) ;

i) ;

j) 1 , 2 , 3 ; 가 ;

k) ; , 1 ;

l) 2 ; 가 ; ;

m) , 1 , 2 3 ;

n) 2 3 ;

가 . , 2 20nm
가 . , 2

가
MOS
MOS

, 10 1000 1050 , 2 20nm , 3
1 300nm .
100nm

. 가

(2) (1) 가 (1). 100 가
 . , SiO_2 400nm P

$$(2) \quad \quad \quad (1) \quad \quad \quad (3) \quad \quad \quad) \quad \quad \quad (3) \quad (2) \quad (3) \quad \text{MOS}$$

1 (4), 2 (5) 3 (6) (3)가 (3) . 1 (4) 300
 nm . 2 20nm P . . 1
 10^{19} cm^{-3} 가 3 (6) n . . 1
 00nm . .

(7) $\frac{1}{2}$ 3 (6) (8) (7) (4) (7) $\frac{1}{2}$ SiO₂ CVD

(9) . . , 1 (9) 2 (8) SiO₂ (1) (10) 가
(8) 1 (9) 2 (10) 2

$$(10) \quad \text{,} \quad (8) \quad (10) \quad 3 \quad (6)$$

$$\text{SiO}_2$$

(11) SiO_2 (2)
 (5) (10)
 1 (4) .
 . (12) . 10 1000 1050
 , (13) (14) (12) 1 (4), 2 (5) 3 (6)
 . 2 (5) (6).
 , MOS (15) (14)
 (7) (12) .
 (16) (13) (14)
 , MOS (14) BPSG (17) (18) (13)
 (18) (17) (12) (19) 가 (17) (18) 가 (8).
 7 8 IX - IX 가 9 . MOS (2)
 .

NMOS

PMOS

가

가

가

(57)

1.

MOS , a) 1 가 ; b)
 1 1 1 2 2 ; c)
 ; f) 1 , 2 3 MOS ; d) 1 ; e) 2
 ; h) ; j) 1 , 2 , 3 ; g) 3 ; i)
 ; l) 2 ; k) 1
 ; n) 2 3 ; m) ,
 MOS

2.

3.

1 , 10 1000 1050
MOS .

4.

1 , , , 1 1 가 ; 2

MOS

5.

1 , 1 300nm , 2 20nm ,
 3 100nm MOS .

6.

7.

6 MOS

8.

9.

8 , 10 1000 1050
MOS .

10.

6 , , 1 1
2 , 1
MOS .

11.

6 , 1 300nm , 2 20nm ,
 3 100nm MOS .

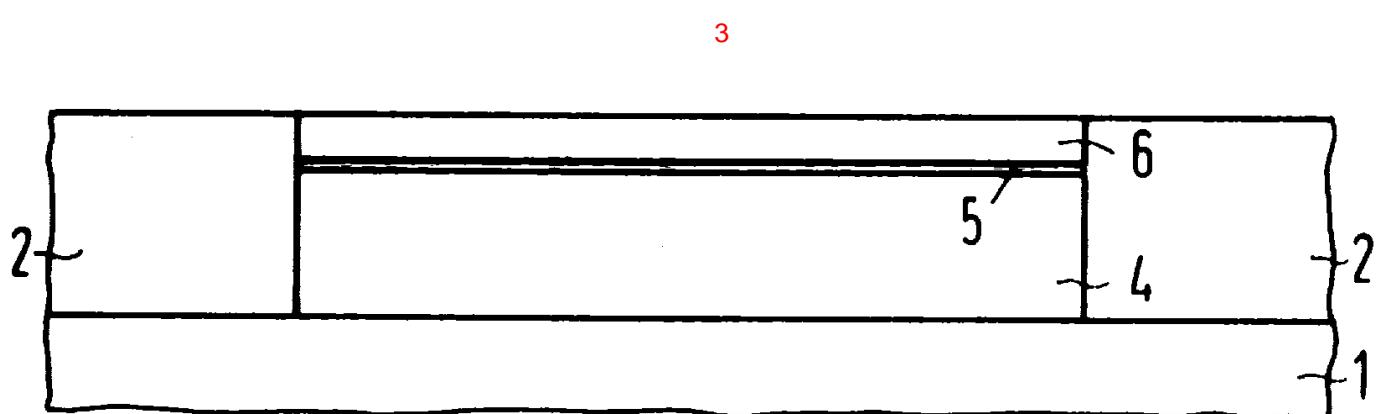
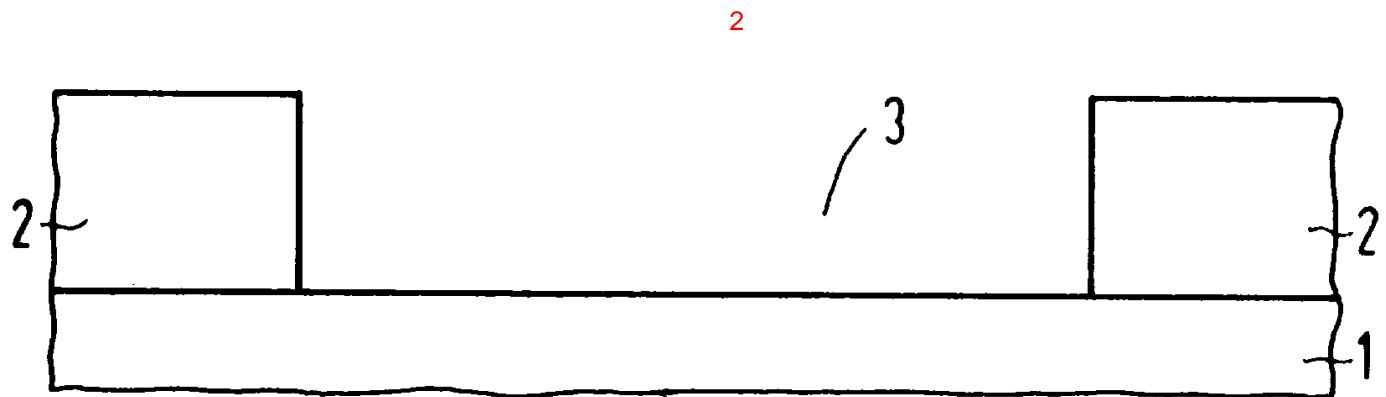
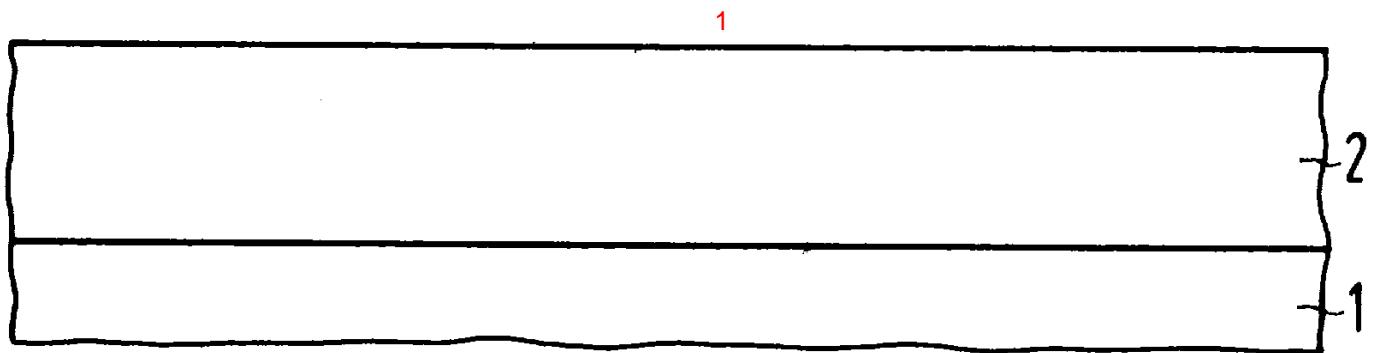
12.

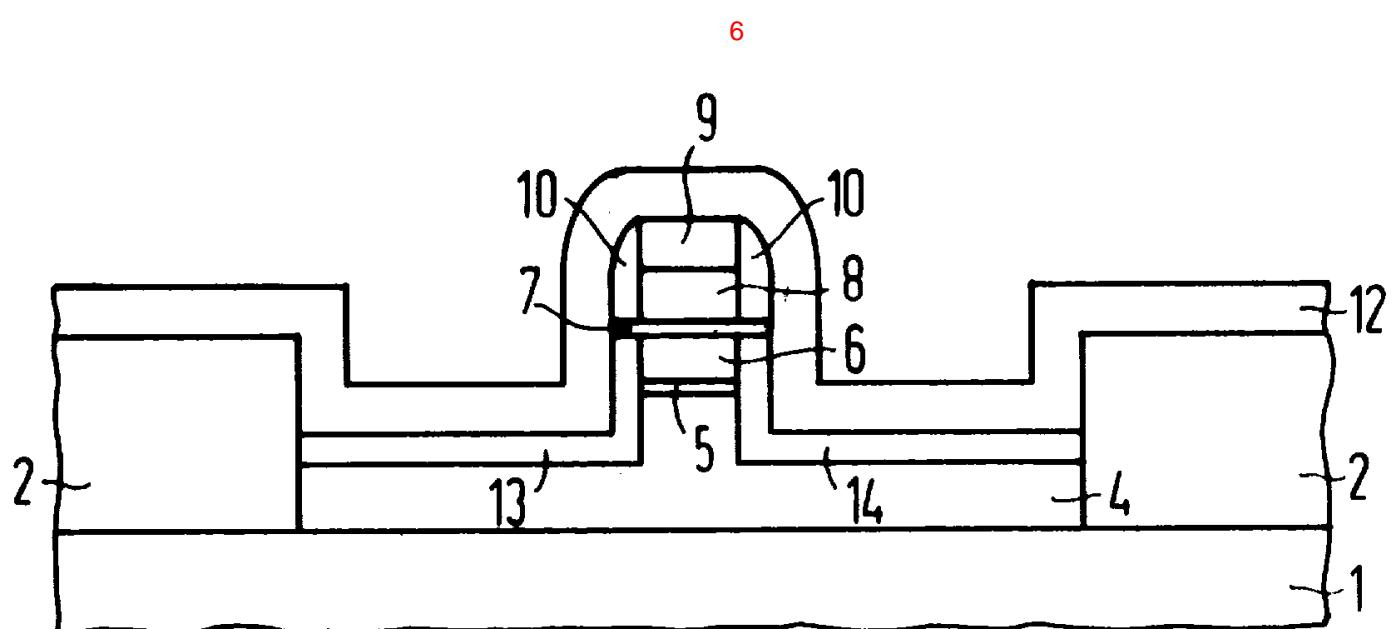
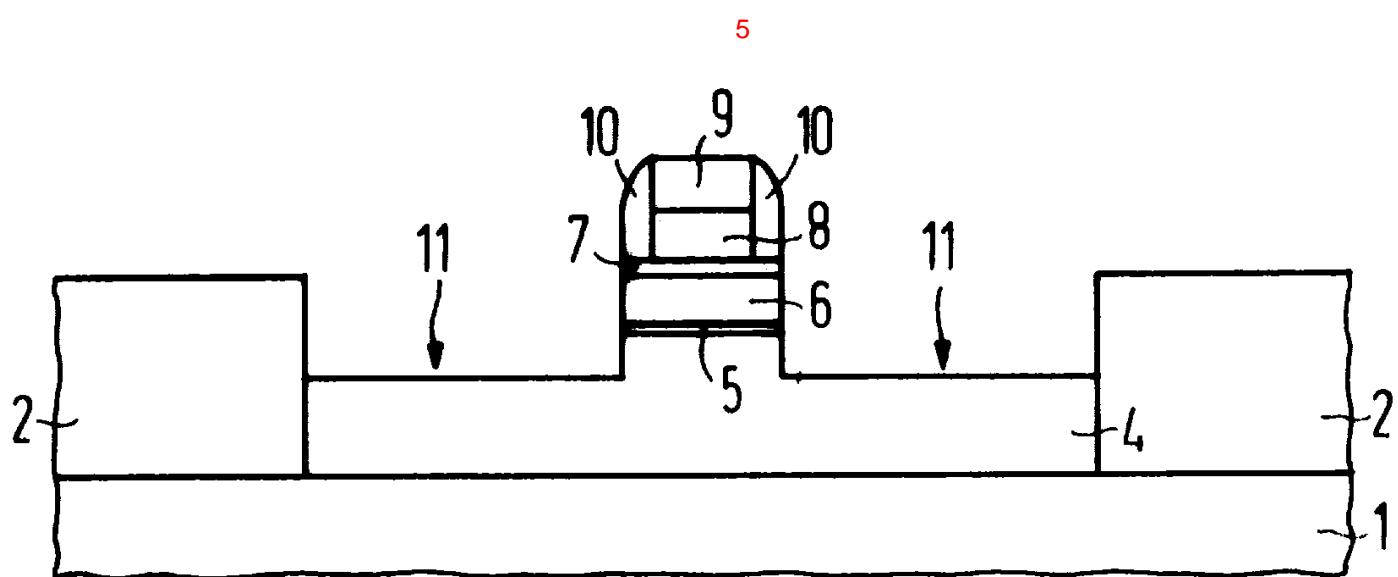
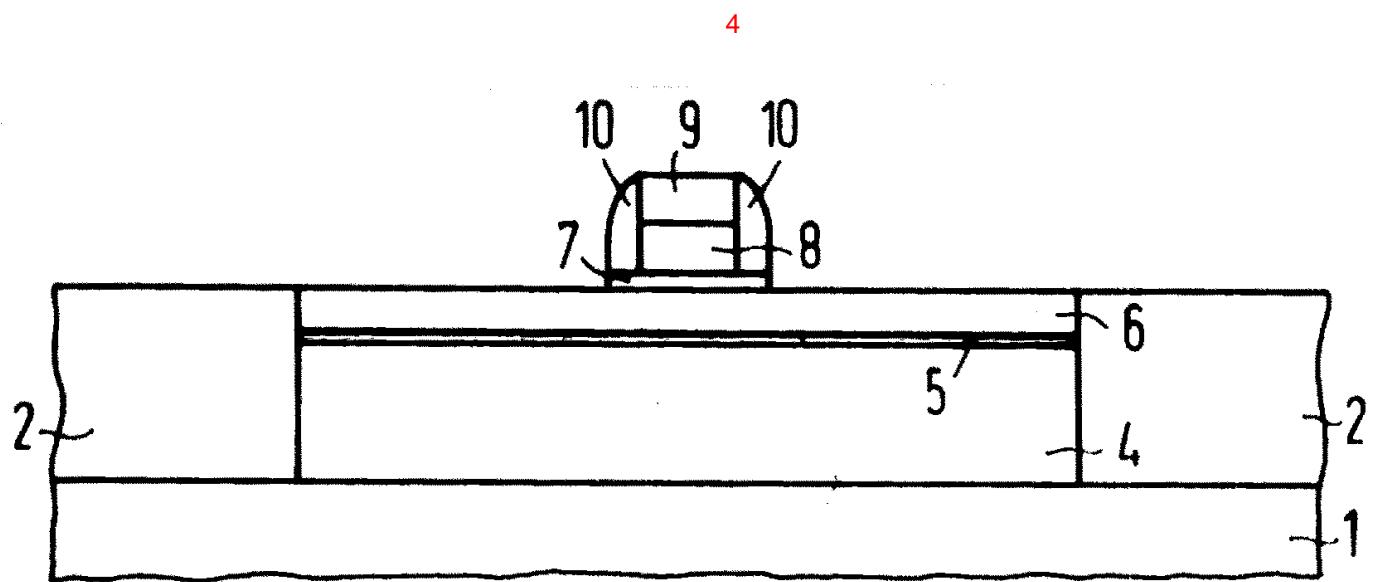
13.

12 , , , , 2 , 2 ; 1 , 2 3 가 ; 2 3 가 MOS .

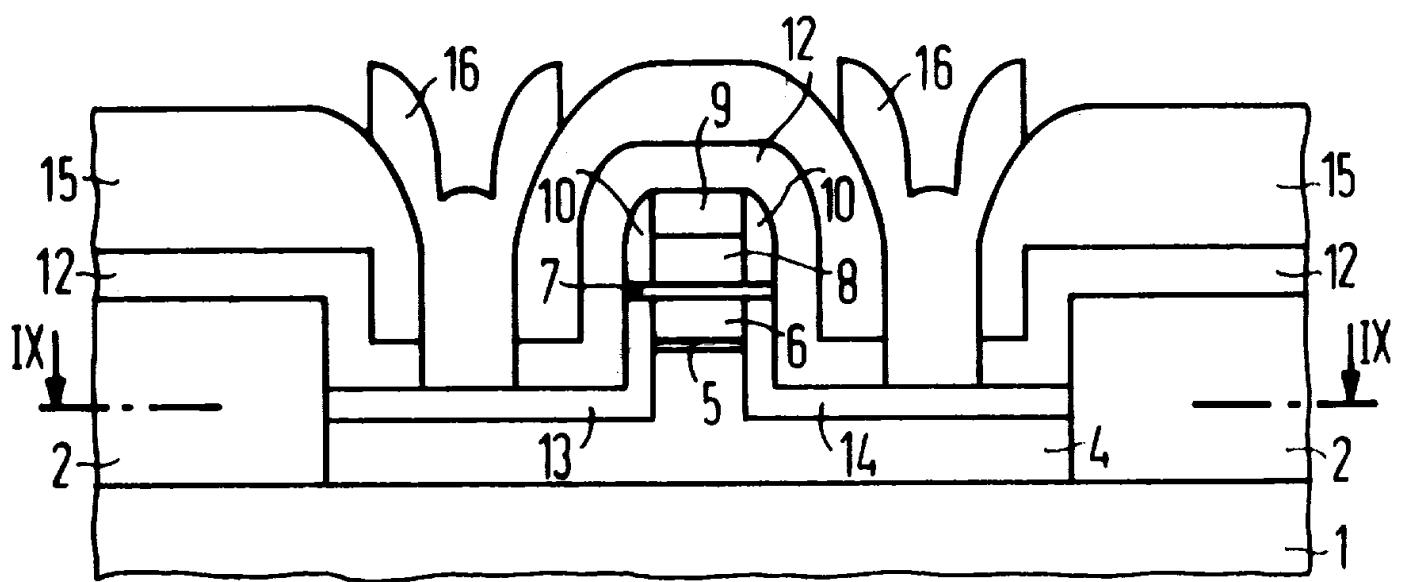
14.

12 , , ; 1 300nm
 m , 2 20nm , 3 100nm
 MOS .

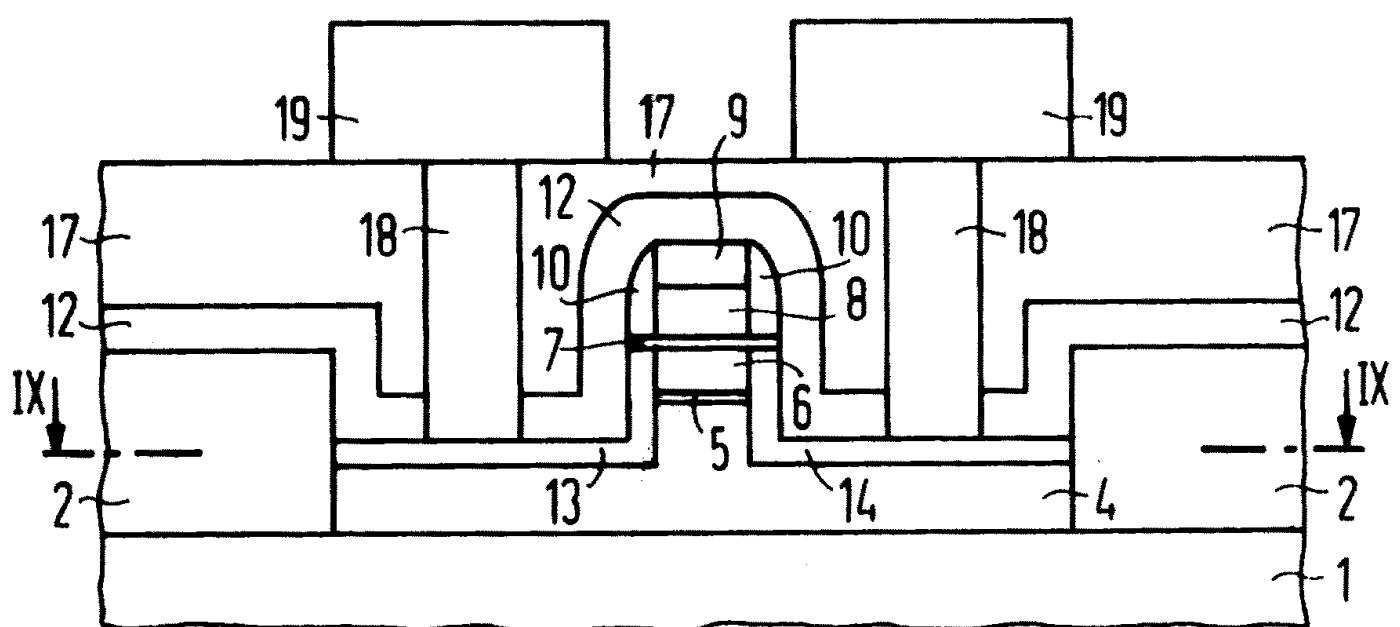




7



8



9

