

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

(21) 10 - 1998 - 0042154 (65) 2000 - 0025179
(22) 1998 10 09 (43) 2000 05 06

(73) ()

49

(72) 320 1601

(74)

1

(54)

(wet bath)

(columnar)

가

(adhesion)

(no - time delay)

(idle time)

; O₂, O₃ N₂O

가

(Ar)

가

(SF₆)

가

H₂, SiH₄, Si₂H₆, B₂H₆, AsH₃, PH₃, GeH₄, SiH₂Cl₂NH₃

가

가

(noble)

(near-noble)

RuO₂ IrO₂ 가(PH₃)

가

가

(Boron)

(Arsenic)

, B₂H₆ AsH₃ 가TaCl₅,Ta[N(CHO)₂]₅, Ta[N(C₂O₅)₂]₅, Ta[N(COR)₂]₅, Ta[NR₂]₅, Ta(OC₂H₅)_{5-n}(OCH₂CH₂OR)_n Ta(OC₂H₅)₅, R CH₃, C₂H₅, C₃H₈ C₄H₁₀).

가 0.01sccm 1slm

100 900

가 NH₃,O₂, O₃ N₂O

γ_2

가

 $\text{RuO}_2 \quad \text{IrO}$

가

가

(57)

1.

가

 $\text{O}_2, \text{O}_3 \quad \text{N}_2\text{O}$

2.

1

3.

$\frac{1}{a(\text{OC}_2\text{H}_5)_{5-n} (\text{OCH}_2\text{CH}_2\text{OR})_n}$ $\text{Ta}(\text{OC}_2\text{H}_5)_5$, TaCl_5 , $\text{Ta}[\text{N}(\text{CHO})_2]_5$, $\text{Ta}[\text{N}(\text{C}_2\text{O}_5)_2]_5$, $\text{Ta}[\text{N}(\text{COR})_2]_5$, $\text{Ta}[\text{NR}_2]_5$, T
CVD, $n = 1 \sim 5$, R

4.

1 ,

5.

4 ,

6.

4 , 7

7.

4 ,

8.

1 , , , , ,

9.

1 ,

10.

1 ,

11.

10 ,

12.

1 , , , , ,