

(19)  
(12)

(KR)  
(A)

(51) 。 Int. Cl.<sup>7</sup>  
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(22) 2003 06 30

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(74)  
:

(54)

InP ; ECR-RIBE(elelctron cyclotron resona  
nce reactive ion beam etching) CBr<sub>4</sub> 가 O<sub>2</sub> 가 InP  
, ECR-RIBE(elelctron cyclotron resonance reactive ion beam etching)  
(high self bias voltage) InP 가 CBr<sub>4</sub> , O<sub>2</sub>  
가 (ashing) ,

2b

1 ECR-RIBE

2a 2b

[ ]

31 : 33 : InP

35 :

onance reactive ion beam etching) ECR-RIBE(elelctron cyclotron res  
 InP 가 CBr<sub>4</sub> , O<sub>2</sub> 가 (high self bias voltage)  
 , (ashing)  
 ,  
 (PICs) , InP  
 가 (1.3 1.6um) ,

RIE(reactive ion etching) CH<sub>4</sub> /H<sub>2</sub> 가 InP  
 (indium) 가 CH<sub>4</sub> 가 가  
 가  
 O<sub>2</sub>, CO<sub>2</sub> 가 가  
 (throughput)  
 RIE  
 200 V  
 , 가 가

esonance reactive ion beam etching) ECR-RIBE(elelctron cyclotron r  
 InP 가 CBr<sub>4</sub> , O<sub>2</sub> 가 (high self bias voltage)  
 , (ashing)  
 , InP  
 ;  
 InP ;

4 가 O<sub>2</sub> 가 ECR-RIBE(elelctron cyclotron resonance reactive ion beam etching) CBr  
 InP  
 ( )  
 ,  
 1 ECR-RIBE

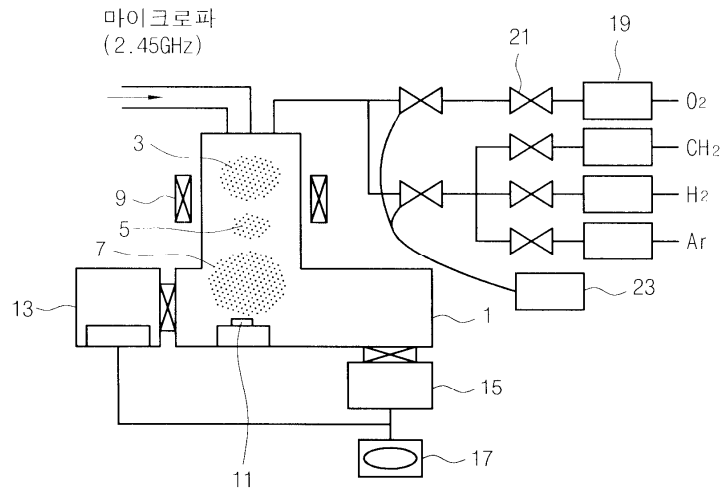
2a 2b

shing) InP , , 1 ECR-RIBE CBr<sub>4</sub> O<sub>2</sub> (a  
 , 5 , 7 , 11 , 9 , 13 , 15 , 17 , 19 )  
 , 21 , 23 . , 13 , 15 , 17 , 19  
 , CBr<sub>4</sub> 가 , CBr<sub>4</sub> CBr<sub>4</sub> O<sub>2</sub> 가  
 , 가 Cl 가 (corrosion),  
 CBr<sub>4</sub> 가  
 InP 가 (dry develop) 3  
 1 ECR-RIBE 2a 2b  
 , 2a , (31) InP (33) InP (33)  
 . (35)  
 2b InP , 1 ECR-RIBE (35) CBr<sub>4</sub> 가 O  
 2 가 on) (33) , (H) (hydrocarb  
 가 .  
 , ECR-RIBE(elelctron cyclot  
 ron resonance reactive ion beam etching) (high self bias voltage)  
 InP 가 CBr<sub>4</sub> , O<sub>2</sub> 가 (ashing)  
 , 가 , 가 가 .

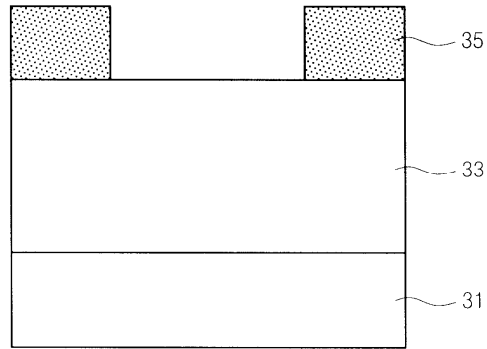
(57)

1. InP ;  
 InP ;  
 4 가 O<sub>2</sub> 가 ECR-RIBE(elelctron cyclotron resonance reactive ion beam etching) CBr<sub>4</sub>  
 InP
2. 1 , CBr<sub>4</sub> 가 , O<sub>2</sub> 가

1



2a



2b

