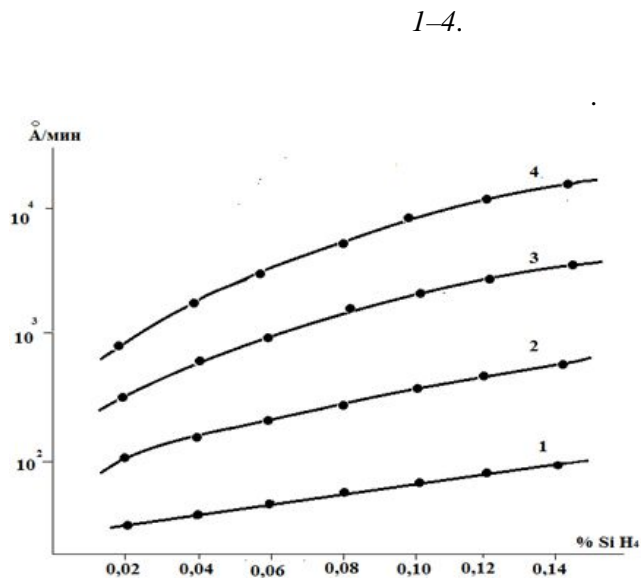




4,5-7,5 (111), 1100 °  
 5  
 (24 / ) [8];

1  
 Si<sub>4</sub>



1 -

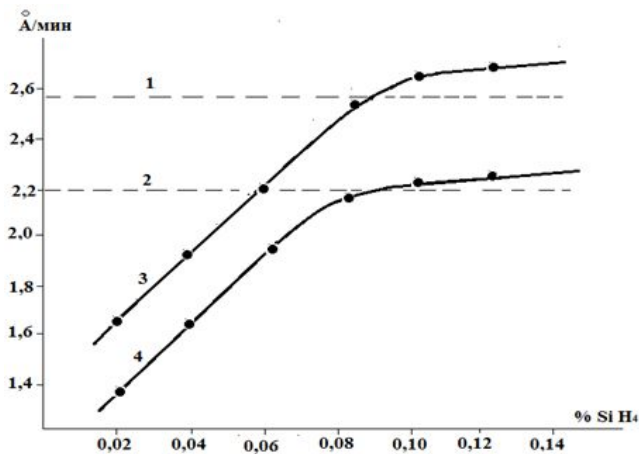
: 1 - 700 ° , 2 - 800 ° , 3 - 900 ° , 4 - 1100 °

1100 °

2  
 Si<sub>4</sub>

2 (

500 ° [4].



2 -

/ , -2)

: 1 -

Si<sub>4</sub>

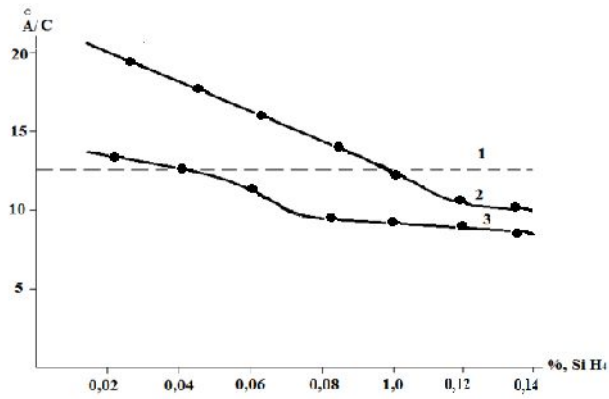
; 2 -

3 - 1100 ° , 4 - 900 ° , 2/Si<sub>4</sub>=100/1

3

22 °

Si<sub>4</sub>



3 -

22 °

Si<sub>4</sub>

: 1 -  
 , 2 - 800 ° , 3 - 1100 ° ,  
<sub>2</sub>/Si<sub>4</sub>=100/1

700 ° ,

25 A / .

( )

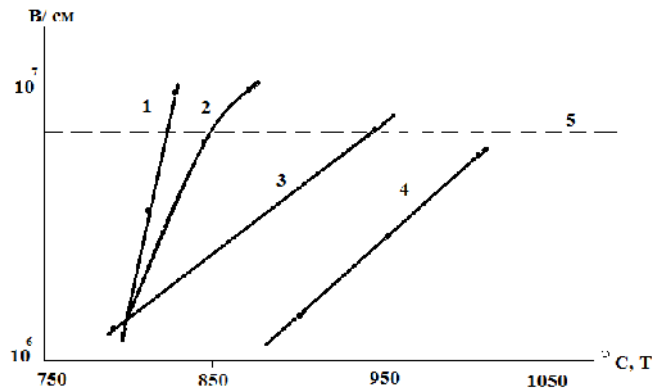
[1, 3].

4

$E_{BD}$

$4,3 \times 10^{11} \text{ c}^{-2}$

$1,5 \times 10^{11} \text{ c}^{-2}$  ;  
 $2,5 \times 10^{11} \text{ c}^{-2}$  [4, 5]



4 -

$E_{BD}$

<sub>2</sub>/Si<sub>4</sub>=100/1

(24 / ): 1 - 0,06 % Si<sub>4</sub>, 2 - 0,08 % Si<sub>4</sub>, 3 - 0,12 % Si<sub>4</sub>, 4 - 0,16 % Si<sub>4</sub>;

(50 )

