

© 2010 . . . , . . . , . . . , . . .

( )

[1],

( )

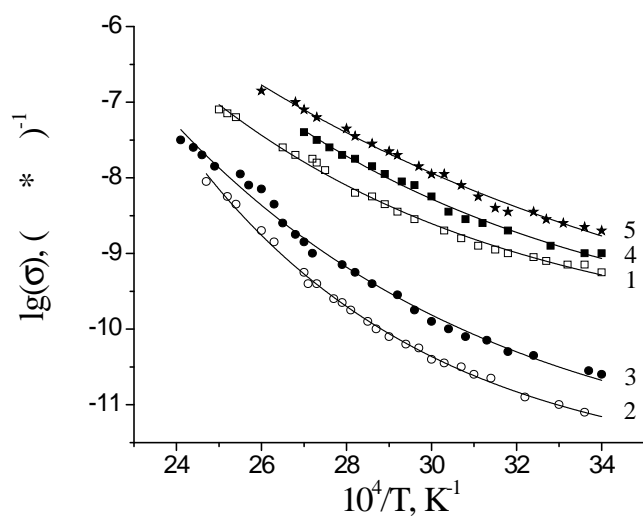
65  
7 , (R) 2,5 (R)  
[2]  $R = 0.542E - 0.133$   
3,92 / <sup>3</sup>), o e  
E = 2.5 , 3.1 ,

d < 2R ( d - ), (R)

d > 2R,

d=2R.

« »



1. ;

2-5 — ;

0, 1100 0, 1200 0 . 900 0, 1000 800

/ .

. 1,

( 1), 2, 3, 4, 5 — 900

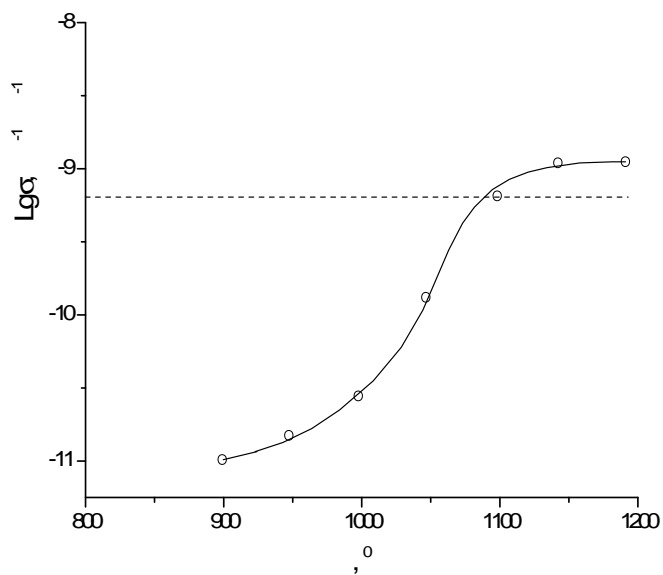
1000, 1100 1200 , 900 1000

900 1000 . ,

100 ( 4, 5),

(0.25 ), (0.53 ),

1100 .



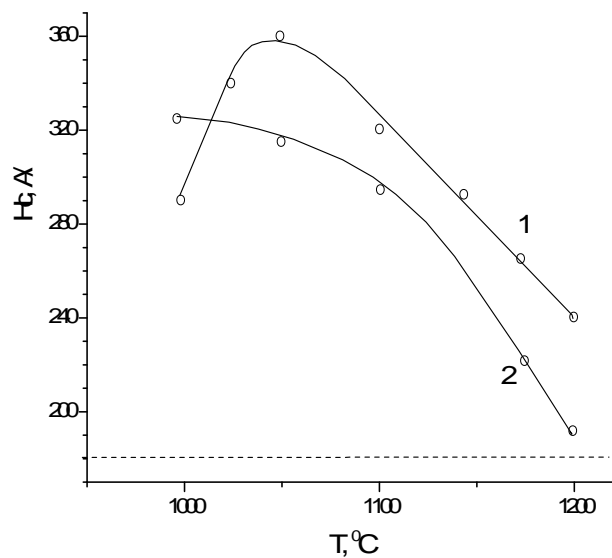
(~ 1100 ) ,  
 ( )  
 (100 -  
 1100 / ),  
 ,  
 ,  
 ,  
 (1100 ).  
 ( )

. 2.

15  
 800 / .

Bm = 0.16 , Br = 0.14  
 . 3 . 4

( . 4)



10 15  
 800 / .  
 (1000-1200)<sup>0</sup>  
 ( . 3).  
 Hc  
 Hc

Bm Br

. 3.

: 1 - 15 ; 2 - 10 ; 3 - 800  
 / .  
 ( . 4).  
 1100<sup>0</sup>  
 Bm Br.

1100 °

$Bm$   $Br$ ,

( 1100 ° )

( . 3),

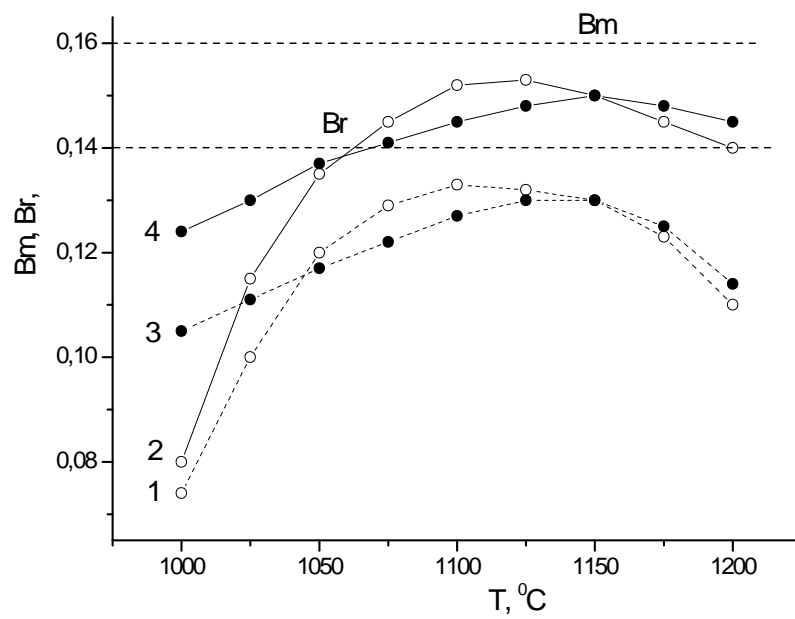
( . 4)

( )

1050 ° ,

1 (  $2.4 \cdot 10^9$  )

(50 - 60) (  $(2 - 2.4) \cdot 10^9$  ).



. 4.

$Bm$   $Br$

( 10 ); 3 -  $Br$ , 4 -  $Bm$  (

: 1 -  $Br$ , 2 -  $Bm$  15 ).

( ).

$Bm$   $Br$  - 1100°

60 (  $2.4 \cdot 10^9$  ).

$Bm$ ,  $Br$   $Hc$

50 (  $2 \cdot 10^9$  ).

1100 °

60

( W)

