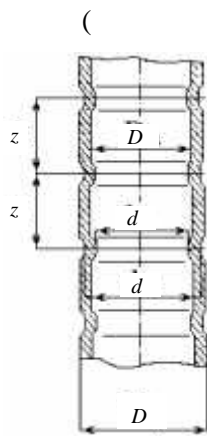




(  $\lambda = 4,24$  ;  $\mu = 593,96$  ),

[9...13].



.1.

[9...13].

1 18 10

$- D / d = 6,0/4,0$  ;  $- 700$  ;  
 $- 430$  ;  $z/D = 2,1$ ;  $d / D = 0,92$ ;  
 $- D / d = 8,0/6,0$  ;  $- 800$  ;  
 $- 400$  ;  $z/D = 1,2$ ;  $d / D = 0,92$  ( . 1).

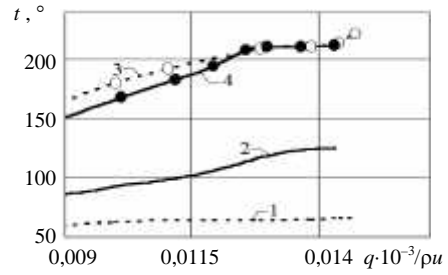
[14, 15],

$q/ u$  ,

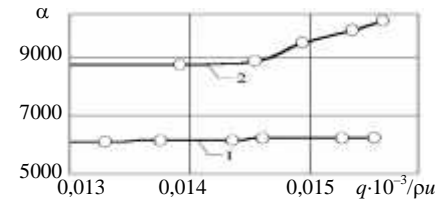
( $q/u = \text{const}$ ) ( . 2).

. 2.  
 = 2 ; 1, 2 -  
 3, 4 - ; ---  
 ; - - - -

$q/u$  :  
 ;  
 -



. 3.  
 1 - , 2 -  $q/u$  : = 2 ;



$q/u$ ,

( . 3).

. 4

( . 4 , )  
 ( 1).

$t_c$   $t_s$   
 ( ) ,

2).

[9, 10].

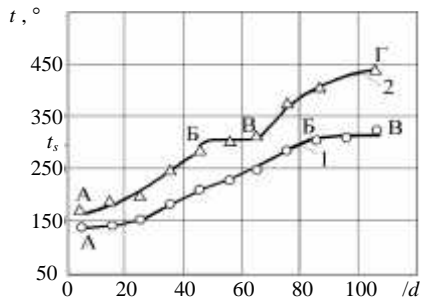
. 5,

$x/d$  50),

2...4

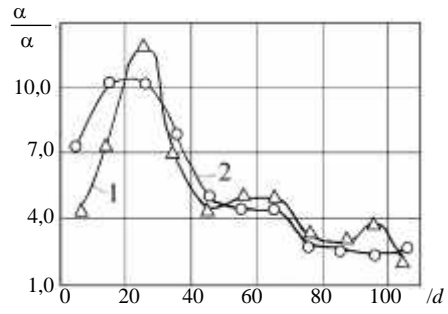
$q/u$ .

( . 6),



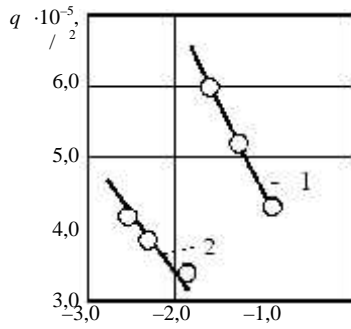
4.

$\rho u = 475 \text{ } /(\text{ }^2\text{.c})$ ;  $t = 217^\circ$ ;  $1 - q = 3,6 \cdot 10^5$ ;  $2 - 6,2 \cdot 10^5 \text{ } / ^2$



5.

$p/p = 0,94$ ;  $t = 234^\circ$ ;  $1 - q/\rho u = 0,16$ ;  $2 - 0,48 \text{ } /$



6.

$\rho u = 473 \text{ } /(\text{ }^2\text{.c})$ ;  $2 - \rho u = 510 \text{ } /(\text{ }^2\text{.c})$

( ) .

[16, 17].

15 40 %,

— 70 %.

( . 2)

( , ).

[18], 3 °

-800-240-2 3,7

0,46 %.

(300- -1)

-300-240 ( ).

36000 <sup>3/</sup> ; - 15400 <sup>2</sup>;

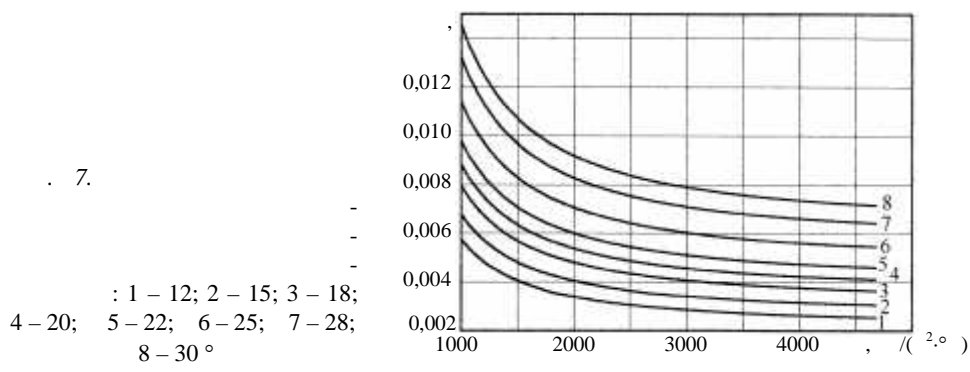
- 560 / ; - 36,6 / ( <sup>2</sup> · ° );

- 63,7.

10 15 ° , - 20

30 ° .

1000 4500 / ( <sup>2</sup> · ° ) . 7,



[14, 15].

- 1.
- 2.

