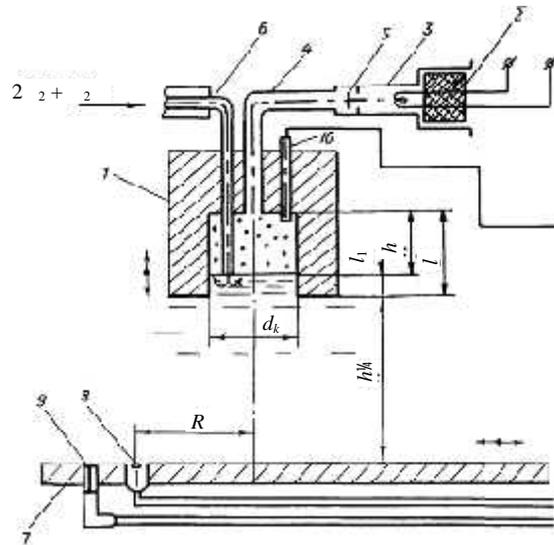


$$d = 95 \quad d = 50 \quad , \quad l = 50$$

$$V = 100 \quad ^3$$



- . 1. ; 1 - ; 2 - ; 3 - -
; 4 - ; 5 - ; 6 - ; 7 - ; 8 - -
; 9 - ; 10 -

[3]

[4],

-19

0,3

« » [5],

5 /

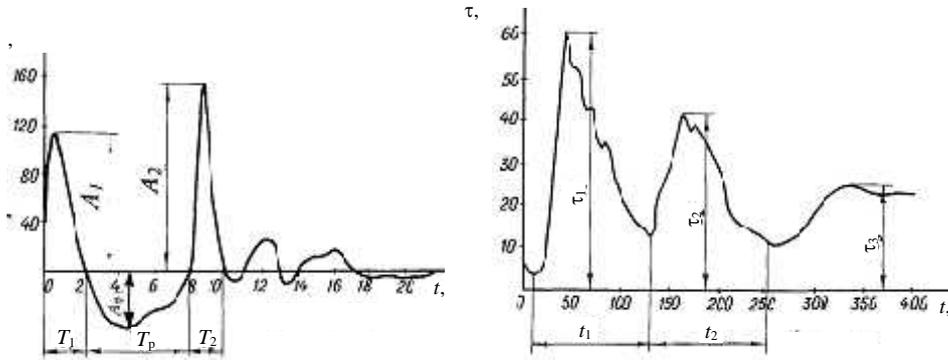
0,025

(< 30°).

8-13.

$r = 1000$,

. 2.



. 2. () ; 1, 2 - ; 1- 2- ; - ; t1, t2 - ; 1, 2 - ; - = f(t); 1, 2, 3 - ; 1- 2- ; 1...3-

$R = (0 - 6)d$, $h' = (0,5 - 6)d$.

1

2.

[5]

$p(t) = f(p_r, t, V_0, V_k, n, f)$,

p_r -

; t - ; V_0 - ; V_k - ; n - ; f - ()

$p = (1 + 2)^{-t} + (n + 1)^{\beta(t-t_n)}$,

$t_n =$ () ; , - -
 , 1/ 2. () ; n - -
 $t_1 = \frac{-t}{1}$,
 - (, - -
 1); t - , -
 . 2
 $h = l$ $V_0 = V =$
 $= 100$ 3 .
 $h = 0,05$ $R = 0$.
 $t_1 = 0,002$, $= 0,0008$.

[5],

$$d \cong l.$$

$l_1,$

[5].

. 3

$$R/d_k$$

$$h'/d_k.$$

()

$$R = 0$$

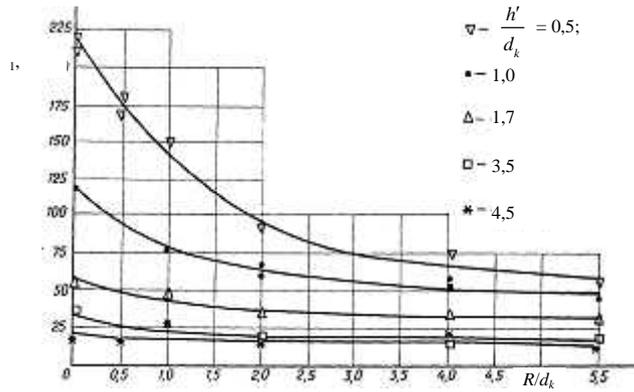
R

$$h'/d_k,$$

$$h'.$$

4...5

$V_0.$



. 3. 1- 1 $\frac{R}{d_k}$

$h'/d_k = 0,5.$
1

$\sigma_1 = f(\dots; h'/d_k; R/d_k),$

10 ; 10 r [5].

$\sigma_1 = \sigma_1 \left(\frac{h'}{d_k} \right)^{-1} - \beta \left(\frac{R}{d_k} \right),$

1- , $h'/d_k \leq 0,5;$ -

$\sigma_1 = 0,11, \sigma_1 = 0,25 \quad h'/d_k = 0,5; \quad \sigma_1 = 0,15 \quad h'/d_k = 1,0; \quad \sigma_1 = 10^6$

1,5...3 ,

5...12 c, (3...4) 1.

), ,

, λ_2 : λ_3

λ_1

$\lambda_2 = \lambda_1$; $\lambda_3 = (3...4) \lambda_1$

λ_1

λ_2

λ_1

A_2/A_1

h'/d_k

h'/d_k 1,7 4,5 A_2/A_1 2 8

R/d_k

h'/d_k

l_1

$5...40$ ($1 = 10^{-4} \%$),

[6].

$25...30 \%$

$30...40 \%$,

$5...40$

$(\lambda_1 \cdot 2)$

t_1 t_2

$3 \cdot 4$

h'/d_k

$R = 0,5d_k$

$R = 0,65d_k$

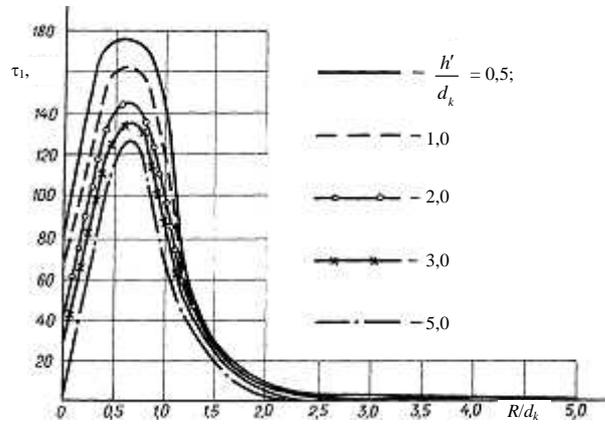
R ; $R > 2d_k$

$R = 0,65d_k$

$(R < 0,65d_k)$

1

$R = 0.$



. 4.

1

2

h'

1

2m

d_k

$R = 1,7d_k$

1

$R > 2d_k$

1

$h' = \text{const}$

0,2

$l_1/l = 0,2$

0,2

0,6

7...10

$l_1/l = 0,6$

1

$R.$

10...15 %

1

$l_1/l = 0,2$

$R = 0$

$R = d_k$

1

$(R = 2d_k) - 22$

2

