

-40

$$\frac{p_p+p}{p}+\frac{u}{p}(\frac{p}{p})^2=\frac{p_o}{p}+\frac{u}{p}(\frac{p}{p})^2(1+\frac{p}{p})+(l_p+l_c+\frac{p}{p})\frac{du(\tau)}{\tau}, \tag{1}$$

$$p\rightarrow$$

$$u_{-3} - u_{-2} =$$

$$- \frac{1}{2}$$

$$l_{\rm p}, l_{\rm c} \rightarrow$$

$$- \frac{1}{2} \frac{1}{\sqrt{2}}$$

$$u_{-1} \rightarrow$$

$$= \frac{1}{2} \frac{1}{\sqrt{2}}$$

$$I$$

$$= \frac{2}{3} \frac{1}{\sqrt{2}}$$

$$III$$

$$= \frac{4}{3} \frac{1}{\sqrt{2}}$$

$$\frac{1}{2} \frac{1}{\sqrt{2}}$$

$$\tau_1=0; \; \tau_2=\frac{2\arcsin(a_c/2R_2)}{\omega_p}; \; \tau_3=\frac{4\arcsin(a_c/2R_2)}{\omega_p}; \; \tau_4=\frac{2\pi}{z_p\omega_p}, \; (2)$$

$$\frac{a}{R_2} \rightarrow$$

$$R_2 \rightarrow$$

$$z \rightarrow$$

$$u(\tau) \rightarrow q(\tau)$$

$$q(\tau)=a_ch_cu(\tau), \tag{3}$$

$$h_c \rightarrow$$

$$Q(t) \rightarrow$$

$$z_p \rightarrow z_c$$

$$t \rightarrow$$

$$I \quad II$$

$$\tau_{\Delta}=\frac{\Psi_{\Delta}}{\omega_{\rm p}}=\frac{\Psi_{-}-\Psi_{+}}{\omega_{\rm p}},\tag{4}$$

$$_4= \qquad \qquad \qquad _1=0$$

$$t \qquad \qquad \qquad I \qquad \qquad \qquad I$$

$$\tau_I(t)=\left|t+\tau\right|\bmod \tau\;, \tag{5}$$

$$- \qquad \qquad \qquad = \quad _4$$

$$II$$

$$\tau_{II}(t)=\left|t+\tau_{\Delta}+\tau\right|\bmod \tau\;.\tag{6}$$

$$i-$$

$$t$$

$$\tau_{i_c}(t)=\left|t+\tau_{\Delta}\left(i_c-1\right)+\tau\right|\bmod \tau\;;\;i_c\in 0\ldots z\;, \tag{7}$$

$$i_c-$$

$$z_c-$$

$$i-$$

$$u \quad c \qquad \qquad \qquad t$$

$$\tau_{i_c}(t):$$

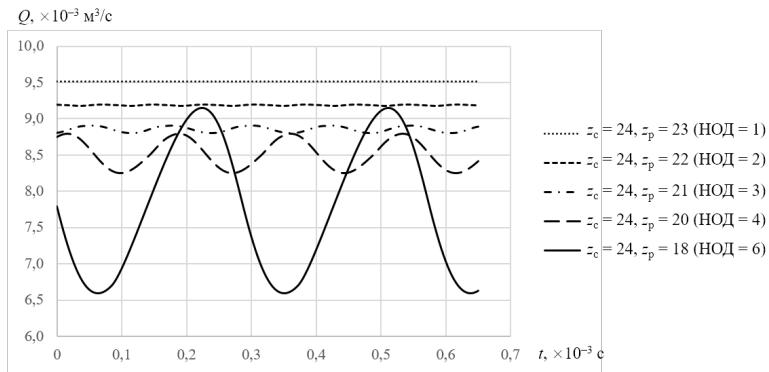
$$q_{i_c}(t)=a_c h_c u(\tau_{i_c}(t)).\tag{8}$$

$$z_{\rm p} \qquad \qquad \qquad z$$

$$Q$$

Q

z_p z



1.

Q

t

z_c

z

Q

z

z

z =

$z = 1 \cdot 10^{-6} \cdot 3 =$

$T_Q = 3,7 \cdot 10^{-5}$

$z =$

$A_Q = 1,3 \cdot 10^{-3} \cdot 3$

$z = 18,$

$T_Q = 2,9 \cdot 10^{-4}$
z z

$\bar{Q}$

-

$\bar{Q}$

10^{-3}

$10^{-3} \cdot 3$

z

Q

Q(t

-

$$\begin{aligned}
 & - \qquad \qquad \qquad q_i(t) \\
 & \qquad \qquad \qquad A_Q \qquad \qquad T_Q \qquad \qquad z \qquad \qquad Q \\
 & z = \qquad z = \qquad \qquad \qquad = \qquad \qquad \qquad z \qquad \qquad A_Q \qquad \qquad z. \\
 & \qquad \qquad \qquad 10^{-6} \quad 3 \qquad \qquad \qquad T_Q = 3,7 \cdot 10^{-5} \\
 & z \quad z \qquad \qquad z = 18, z = \qquad \qquad \qquad A_Q = 1,3 \cdot 10^{-3} \quad 3 \\
 & \qquad \qquad \qquad T_Q = 2,9 \cdot 10^{-4}
 \end{aligned}$$

1. - -
2. -1», 2004. -
- 2009. - - -37.
3. . - 2023. - -
181-185.
4. - -
-27.
5. - 2010. - - -135.
6. -
- 2016. - - -106.
7. - 2018. - - -103.
8. - 2023. - -
137-142.

Аннотация.

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Ключевые слова:

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Mathcad.