

[1]

[2].

$$\frac{\partial H}{\partial r} + \frac{H}{r} = \gamma E; \tag{1}$$

$$\frac{\partial E}{\partial r} = \mu \frac{\partial H}{\partial t}, \tag{2}$$

$$\frac{\partial^2 H}{\partial r^2} + \frac{1}{r} \frac{\partial H}{\partial r} - \frac{H}{r^2} = \gamma \mu \frac{\partial H}{\partial t}. \tag{3}$$

$$(3) \quad 0 \leq r \leq R^+.$$

$$H(r, t)$$

$$(r, t) \Big|_{t=0} = f(r). \tag{4}$$

$$(0, t) = 0; \quad (R^-, t) = \frac{i(t)}{2\pi R}. \tag{5}$$

(1), (3)-(5)

(5) $(r = R)$.

(5)

(3) $0 \leq r \leq R^-$

(6) $(r, -0) = H(r, +0)$

(1) (r, t) (r, t) ,

$\delta = \gamma$:

(7) $(r, -0) = (r, +0)$

$t = 0$ $Di = i(+0) - i(-0)$.

(5)

(8) $\Delta H = \frac{\Delta i}{2\pi R}$

(3), $r = R$ $t > 0$. H E

(9) $i(-0) = 2\pi\gamma \left(\int_0^{R^-} E(r, -0) r dr + \int_{R^-}^{R^+} E(r, -0) r dr \right)$;

$i(+0) = 2\pi\gamma \left(\int_0^{R^-} E(r, +0) r dr + \int_{R^-}^{R^+} E(r, +0) r dr \right)$.

(7),

(10) $\gamma \int_{R^-}^{R^+} \Delta E(r, 0) r dr = \frac{\Delta i}{2\pi}$

$\Delta E(r, 0) \rightarrow \infty$.

(10)

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HNO_3),

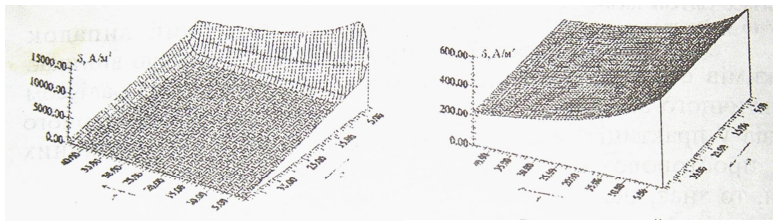
$R_1 = 0,1()$,

$R_2 = 0,2()$ $h = 0,25()$,

$\pm 100()$.

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$r, z : R_1 \leq r \leq R_2 ; 0 \leq z \leq h$.



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2000. ó 1(10), 2(11).