

TABLE 1. Comparison of Results of rf and Thermoluminescence Dosimetry Methods

$M_{\max} \cdot 10^{-7},$ $R \cdot \text{sec}^{-1}$	$M_{\max,t} \cdot 10^{-7}$ $R \cdot \text{sec}^{-1}$	$M_{\max,t}/M_{\max}$
0,84	1,6	1,9
0,92	1,9	2,1
1,6	2,6	1,6
2,1	3	1,4
3,6	6,6	1,8
11	15	1,4
12	22	1,8
20	27	1,4
40	48	1,2

i.e., if it is noted that  $I(t)/\alpha(t) = 0.31 \text{ A}$  and  $S = 40 \text{ cm}^2$ , we get  $K = 140 \text{ c}/4\pi L$  which is in complete agreement with Eq. (1).

In a number of experiments, along with measurements of the exposure rate by the rf method we measured the radiation dose  $D_t$  by the thermoluminescence method with VA-S-220 dosimeters (see Table 1). In the process, the relation

$$M_{\max,t} = M_{\max} \frac{D_t}{\int_0^{\infty} M(t) dt},$$

where  $M_{\max}$ , the maximum value of the exposure rate  $M(t)$  recorded by the rf method in the same experiment as  $D_t$  was recorded, was used to convert the radiation dose  $D_t$  integrated over a pulse into the maximum dose rate  $M_{\max,t}$  obtained by the thermoluminescence method.

The fact that the ratio  $M_{\max,t}/M_{\max}$  is constant within the limits of the error of measurement (the error of measurement is 15% in the case of the rf method and 25% in the case of the thermoluminescence method, the mean value of the ratio is 1.6) for a whole train of pulses attests to the applicability of the rf method for measuring the exposure rate of ionizing radiation, whereas the systematic deviation of these ratios from unity is due to the difference in the method of calibration of the rf and thermoluminescence dosimeters.

#### LITERATURE CITED

1. Yu. A. Medvedev et al., *At. Énerg.*, 40, No. 1, 53 (1976).
2. Yu. A. Medvedev, N. N. Morozov, and B. M. Stepanov, *At. Énerg.*, 45, No. 5, 374 (1978).
3. Yu. A. Medvedev, B. M. Stepanov, and G. V. Fedorovich, in: *Problems of the Metrology of Ionizing Radiation* [in Russian], Atomizdat, Moscow (1975), p. 183.
4. V. N. Kapinos et al., *Zh. Tekh. Fiz.*, 44, No. 11, 2432 (1974).
5. V. Golant, *Microwave Methods of Studying Plasma* [in Russian], Nauka, Moscow (1968), p. 296.
6. A. L. Fel'dshtein, L. R. Yavich, and V. P. Smirnov, *Handbook of the Fundamentals of Waveguide Engineering* [in Russian], Sovet-skoe Radio, Moscow (1967), p. 214.
7. L. A. Artsimovich, *Handbook of Nuclear Physics* [in Russian], Fizmatgiz, Moscow (1963), p. 361.

#### ERRATA

In the article "Liberation of Hydrogen from Aqueous Solutions Irradiated in Nuclear Reactors" by M. V. Vladimirova and I. A. Kulikov (Vol. 45, No. 3, 1978) the formula on p. 927 should read:

$$I_{\gamma} + f.n = 2.5 \cdot 10^5 \varphi t.n, \text{ eV/ml} \cdot \text{sec.}$$