Erratum: Undulator radiation of relativistic electrons in a polydomain ferromagnetic [JETP Lett. 36, No. 9, 408–411 (5 November 1982)]

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In the paper of G. M. Genkin and V. V. Zil'berberg, published in Vol. 36, No. 9, the authors missed the following misprints: 1) In Eq. (2) γ^{-2} should be substituted for s^{-1}, $(1 - n_z \beta)$ should be substituted for $(1 + n_z \beta)$, and $\omega(1 - n_z \beta) - k\Omega_0$ should be substituted for $\omega(1 - n_z \beta) - \Omega_0$. 2) The paragraph in which Eq. (4) appears should read as follows:

Comparing the maximum spectral density[3] under the conditions corresponding to channeling I_k with the spectral density of the undulator I_0 in the undulator's frequency band, we find

$$\frac{I_0}{I_k} \sim \frac{\omega_c^2}{\Omega_k \Omega_0} \left(\frac{c}{R \Omega_k} \right)^2 \frac{M}{3\gamma^{1/2}} . \tag{3}$$

Although the ratio of the total radiation power is independent of γ, the ratio of the spectral densities is $\sim \gamma^{-1/2}$. Equation (4), we might note, ignores the additional damping factor representing the electrons that reach the channeling level. Assuming it to be[4] $(R/a) \sim 10^{-1}$ for planar channeling and for $B_0 \sim 8 \times 10^3$ G (Mn-Bi, Ni-Fe), $\lambda_0 \sim 1$ μm, $M \sim 100$ for $\Omega_k \sim 10^{-16}$ s^{-1}, $R \sim 3 \times 10^{-9}$ cm, and $\gamma \sim 25$, we find $(I_0/I_k) \sim 0.1$. 3) In the abstract and in the final paragraph the sentence "Under certain conditions this radiation has a higher power than the radiation of a channeled particle" should be omitted.

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