Errata

Vlokh R. Ukr.J.Phys.Opt. 6 (2005) p.1-5.

Page 3. Instead sentence: "With accounting of light absorption, the relation for the polarization should contain both real and imaginary parts according to…"

Should be: "With accounting of light absorption, the relation for the electric field should contain both real and imaginary parts according to…"

Correct formula (5) is $E^{(\omega)} = D^{(\omega)} - \left(4\sqrt{\beta M}\sqrt{|g|} \pm i4\sqrt{\beta M}\sqrt{|g|}\right)D^{(\omega)}$.

Correct formula in footnote should be: $E^{(\omega)} = D^{(\omega)} \pm 4\sqrt{2\beta Mg}e^{i\omega_0 t}D^{(\omega)}$.

Page 4: Eq.(9) is incorrect. Correct formula (10) should be $|\Delta W| \simeq 10\varepsilon_0\beta MgD_0^2$.

Instead sentence: "The electromagnetic wave energy is usually presented by the well-known equation $W = \frac{1}{2}\varepsilon_0 E_0^2$ and it can be rewritten as $W = \frac{1}{2}\varepsilon_0 P_0^2$, since we have $\varepsilon = \mu = 1$ for the vacuum."

Should be: "The electromagnetic wave energy density for the init volume is usually presented by the well-known equation $W = \frac{1}{2}\varepsilon_0 E_0^2$ and it can be rewritten as $W \simeq \frac{1}{2}\varepsilon_0 D_0^2$, since we have $\varepsilon \simeq \mu \simeq 1$."

Instead sentence: "Presenting the single γ-quantum energy as $W = h\nu = \frac{1}{2}\varepsilon_0 E_0^2$, one can replace the quantity $E_0^2 = \frac{2h\nu}{\varepsilon_0}$ in Eq. (10) with $|\Delta W| = 16\beta Mgh\nu$.

Should be: "Presenting the single γ-quantum energy density for unit volume as $W = h\nu = \frac{1}{2}\varepsilon_0 D_0^2$, one can replace the quantity $D_0^2 = \frac{2h\nu}{\varepsilon_0}$ in Eq. (10) with $|\Delta W| = 20\beta Mgh\nu$. "

Instead sentence "…gives a quite large γ-quantum energy, W=7.09×10^{15}eV."

Should be: "…gives a quite large γ-quantum energy, W=5.67×10^{15}eV."

Correct formulas (12)-(14) are:

$$\Delta mc_0^2 = 20\beta Mgh\nu \quad (12)$$

$$\Delta m = \frac{20\beta Mgh\nu}{c_0^2} = \frac{20GMgh\nu}{c_0^6}. \quad (13)$$

$$\Delta W = h\nu = \frac{m_e c_0^6}{20GMg} \quad (14)$$

In abstract and conclusion: Instead value W=1.32×10^{5}eV, value - W=1.06×10^{5}eV.