

$$B_{2^\circ} = \left(\frac{2\pi F_B}{W_k} \right) \left(\frac{W_k}{W_v} \right)$$

Here, then, we have an instance where two alternate charge fluxes, one massbound and the other massfree, share the same cyclotronic frequency F_B , which can now be written as a function of either field, the ‘formed aether field’ of massfree charges or the ‘induced alternate field’ of massbound charges:

$$\begin{aligned} F_B &= B_{2^\circ MF} W_{V2^\circ} / 2\pi = W_{V2^\circ} / \ell_C = B_{2^\circ MB} W_k / 2\pi = \mathcal{E} / a_w (4\pi^2 L_{2^\circ}) = \\ &= 4^2 (W_{V2^\circ}^4 / c^4) (v_k / n) = (4\pi^2 L_{2^\circ} W_{2^\circ})^{-1} = (L_{2^\circ \text{ act}} W_{2^\circ})^{-1} \end{aligned}$$

and thus share the same angular velocity:

$$\omega_B = 2\pi F_B = B_{2^\circ MF} W_{V2^\circ} = 2\pi W_{V2^\circ} / \ell_C = B_{2^\circ MB} W_k = 6.004 \cdot 10^7 \text{ rad sec}^{-1}$$

And yet, their magnetoinductive fields B have very different values and, as well, the radii of the angular motion of the respective charged particles, massfree and massbound, will be quite different.

2. Aetherometric (functionalist energetic) theory of longitudinal electric waves:

I. The theoretical hypotheses regarding massbound and massfree current functions.

From the preceding we can already conclude that the magnetodynamic wave function of massfree charges, in Space occupied by Matter, differs both in magnitude and in fine structure from the magnetodynamic wave function of massbound charges, despite the fact that both wave functions share the same cyclotron frequency F_B :

$$(B_{2^\circ MF} F_B) \neq (B_{2^\circ MB} F_B)$$

Now, the reader will remember from a previous communication ⁽²⁾ that a Tesla-type coil will develop two distinct ‘field’ effects. Proximally to the coil, conductors will undergo a positive monopolarization. This is manifested at the electroscope in the form of spontaneous positive charging of the same. Beyond a certain distance, which varies from coil to coil but was found to be ca 25 cm for the BD10A coil ⁽²⁾, no such positive monopolarization is observed, and instead the effect upon the electroscope is no longer one of inducing spontaneous charging, but instead one of accelerating the leakage, but not the seepage, rate of spontaneous electroscopic discharge. We concluded, from a