

F03110

Field due to moving electron

$$E = \text{grad} \frac{e^2}{r}, \quad H = 0$$

$$E'_{\parallel} = E_{\parallel}, \quad E'_{\perp} = \frac{(E + \frac{1}{c}[vH])_{\perp}}{\sqrt{1-\beta^2}}$$

$$H'_{\parallel} = H_{\parallel}, \quad H'_{\perp} = \frac{(H - \frac{1}{c}[vE])_{\perp}}{\sqrt{1-\beta^2}}$$

$$\gamma_0 = \frac{e^2}{mc^2}, \quad \frac{1}{\sqrt{1-\beta^2}} \gg 1$$

$$|E'_{\perp}| \approx |H'_{\perp}| \approx \frac{\text{grad} \frac{e^2}{r} \frac{2}{3} \frac{e^2}{r^2}}{\sqrt{1-\beta^2}}$$

$$r = \gamma_0 / (1-\beta^2)^{\frac{1}{4}} = \frac{2}{3} \frac{e^2}{\gamma_0} = \frac{2}{3} \frac{mc^2}{\frac{e^2}{r_0}}$$

then electron's velocity is less than $c/2$
 $r = r_0 / (1-\beta^2)^{\frac{1}{4}}$ the E & H field is $\frac{mc^2}{r_0}$.
 the electron radius is $\sim 10^{-15}$ m or mc^2 order
 potential is a charge e is $\sim 10^{-15}$ m

It is potential ϕ of order of charge e for μ is
electron, positron ^{pair} number is
indeterminate n is ~ 1 to ~ 100 .
in L , r_0 of $\sqrt{\phi}$ potential of
 mc^2 of charge e for μ is
electron of state i is n_i is ~ 1 to ~ 100
of μ is ~ 1 . (P.S. electron of
stability of μ is ~ 1) P.S.
electron of n_i is ~ 1 to ~ 100 , n_i is ~ 1 to ~ 100 .
(positron n_i of pair n_i is ~ 1 to ~ 100 , n_i is ~ 1 to ~ 100
of μ is ~ 1 , electron of n_i of positron
of n_i is ~ 1 to ~ 100 , n_i is ~ 1 to ~ 100 .)
of μ , ~~electron of n_i is ~ 1 to ~ 100~~
statistics charge, energy is ~ 1
of μ , electron; positron
~~of μ is ~ 1 to ~ 100~~ n_i is ~ 1 to ~ 100
charge of μ is ~ 1 , n_i energy (momentum)

その内では、

9. 2. 1. 1.

その場合、charge σ - 5.0 $\times 10^{-19}$ C
と仮定して、これは、
- 1. ν -field の σ と τ の ν -field
quanta

か、 σ - 1. ν -ray ν -electro-
magnetic field $\times$ ν -quanta ν -
 ν -field $\times$ is independent ν -field.

これは、 ν -ray ν -electron ν -field
(ν is neutrino ν -field) ν -field.
 ν -ray ν - ν -quanta ν -field ν -field
 ν -field ν -field.

(ν is ν -ray)

この ν -ray ν -field ν -electron
field ν -field. ν -quanta (ν neutrino)
field ν -field ν -field describe ν -field.
この ν -ray ν -field.