

**Electron-Neutrino Energy Source**

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See Unified Absolute Relativity Theory at:

[www.wbabin.net/saraiva/saraiva105.pdf](http://www.wbabin.net/saraiva/saraiva105.pdf)  
[www.wbabin.net/saraiva/saraiva223.pdf](http://www.wbabin.net/saraiva/saraiva223.pdf)

Force between two electric charges:

F – force; R – distance;  $q_e$  - electric charge;  $q_m$  - magnetic charge  
 $\epsilon_0$  - vacuum permittivity;  $\mu_0$  - vacuum permeability.

$$F_1 R_1^2 = \frac{q_e^2}{4\pi\epsilon_0} = 2.31 \times 10^{-28}$$

Force between an electric and a magnetic charges:

$$F_2 R_2^2 = \frac{q_e q_m}{\pi\sqrt{\epsilon_0\mu_0}} = 3.161 \times 10^{-26}$$

Force between two magnetic charges:

$$F_3 R_3^2 = \frac{q_m^2}{\mu_0} = 3.4 \times 10^{-24} ; \quad q_m = \frac{h}{2q_e}$$

$\alpha$  - Fine structure constant

$$F_3 R_3^2 / F_2 R_2^2 = \alpha^{-1} \pi / 4$$

$$F_2 R_2^2 / F_1 R_1^2 = \alpha^{-1}$$

$$F_3 R_3^2 / F_1 R_1^2 = \alpha^{-2} \pi / 4$$

## Force between a neutrino and an electron

There is always a neutrino orbiting an electron. Their binding energy can be a new source of energy.

Acceleration electron-neutrino:

$$g_\nu = 3.38 \times 10^{55} ; \quad g_e = 1.205 \times 10^{18} \text{ ms}^{-2}$$

$$g_{ve} = \sqrt{g_e g_\nu} = 6.38 \times 10^{36} = \frac{w^2}{R} ; \quad R = \frac{N\sqrt{k}}{2\pi}$$

Speed of the neutrino:

$$v = \frac{w}{N} ; \quad w = 2.16 \times 10^{19}$$

$$6.38 \times 10^{36} = \frac{w^2 2\pi}{N^3 \sqrt{k}} \quad \Leftrightarrow \quad N = 3.2145 \times 10^6$$

Perimeter of the orbit:

$$P = N\sqrt{k} ; \quad k = 1.9 \times 10^{-34} \text{ m}^2$$

$$R = \frac{N\sqrt{k}}{2\pi} = 7.077 \times 10^{-12} \text{ m} ; \quad v = \frac{w}{N} = 6.72 \times 10^{12} \text{ ms}^{-1}$$

Force neutrino-electron:

$$F = m_\nu \sqrt{g_e g_\nu} = 14.036 \text{ Newton} ; \quad m_\nu = 2.2 \times 10^{-36} \text{ kg}$$

Force neutrino-electron, verification:

$$F = \frac{q_e q_m v}{\pi R^2} = 14.036 \quad \Leftrightarrow \quad v = 6.72 \times 10^{12}$$

$1/N$  = Fine structure constant of the neutrino.  $N$  is the number of wavelengths ( $\sqrt{k}$ ) that compose the orbit perimeter.

**Binding Energy:**

$$E = FR = 620 \text{ MeV}$$