

A great revolution in producing affordable, abundant, convenient, clean and... energy so that one kilogram of it, could supply the power of moving a machine for years!

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Nowadays, about 90% of our appliances are electron-dependent. It can be said that the moving electron has a high ability to do work. All we know, the speed of electron in wires is close to the speed of light, but another effective parameter that makes electron have a very high ability to perform various tasks is its density:

$$\rho = \frac{m_e}{V_e} \rightarrow \rho = \frac{9 \times 10^{-31}}{2.19 \times 10^{-44}} = 4.1 \times 10^{13} \text{ (kg/m}^3\text{)}$$

It can be said that the product of velocity (s) in density (ρ) is an effective parameter in the high ability of electron to do work.

$$E_{ff} = \rho s$$

Now we calculate the energy of “n” electrons to do the work:

$$E_n = n \left(\frac{1}{2} m s^2 \right)$$

$$E_n = n \left[\frac{1}{2} \rho s (sV) \right]$$

$$n = \frac{\Delta m}{m_e}$$

Where Δm is the mass changes of the source before and after doing the work and m_e is the mass of one electron. So:

$$E_n = \frac{\Delta m}{m_e} \left[\frac{1}{2} E_{ff} s V_e \right]$$

$$s \cong 3 \times 10^8 \text{ m/s}$$

$$V_e = 2.19 \times 10^{-44} \text{ (m}^3\text{)}$$

Now by placing the density and speed of electron to calculate the energy of 1 gram of electrons:

$$E_n \cong 10^{13} \text{ (j)}$$

For 1 kg of electrons, we have:

$$E_n \cong 10^{16} \text{ (j)}$$

Now, consider a 2-ton car. It requires about 10^9 j energy to travel 100 km. Therefore 1 kg of electrons can easily provide the energy to travel more than 500,000 km. In this article we will explain the different applicable ways to produce such Electron Tank.

