

## The Water Heater Reveals Manifestations of Mass

Francis Viren Fernandes

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Heat is defined as electron volts. However, heat is not energy. By convention electron volts times elementary charge is energy in units of joules. Resistance is current associated with a photon mass or speed of light per unit elementary charge and is constant. Current squared is force and voltage is acceleration. A single oscillator **frequency yields mass**. Mass measures differ by a rotational factor of  $2 \text{ Pi} \times 10^{-7} \times 137.036$ .

Consider  $3.14 \times 10^4 \text{ eV}$  heat from 400 Watts of power generated over 78.5 seconds.

$$E = QVe = 5.030834304 \times 10^{-15} \text{ J} = mc^2$$

$$m = 5.597558071 \times 10^{-32} \text{ kg}$$

$$\text{Utilizing } q^2 = m \times r \times 10^7$$

$$r = 4.585874056 \times 10^{-14} \text{ m}$$

$$\text{Wavelength } \lambda = 2 \text{ Pi } r \times 137.036 = 3.948541119 \times 10^{-11} \text{ m}$$

$$c = \lambda \times f \text{ and so } f = 7.592486667 \times 10^{18} \text{ Hz}$$

$$\text{Acceleration } a = 25812.8076 \times f = \text{voltage} = 1.959833975 \times 10^{23} \text{ m/s}^2$$

$$QV = ea = 3.14 \times 10^4 \text{ eV}$$

$$t^* = 1/f = 1.317091546 \times 10^{-19} \text{ s}$$

The time period of the photon in relation to 78.5 seconds heating on the clock,

$$\# = t / t^* = 78.5 / 1.317091546 \times 10^{-19} = 5.960102034 \times 10^{20} \text{ charges or photons}$$

$$Q = ne = 5.960102034 \times 10^{20} \times 1.60217653 \times 10^{-19} = 95.49135595 \text{ C}$$

$$H = QV = 3.14 \times 10^4 = 95.49135595 \times V$$

$$V = 328.8255747 \text{ volts}$$

$$Q = I t$$

$$\text{Current } I = 95.49135595 / 78.5 = 1.216450394 \text{ amps}$$

$$\text{Resistance} = I / m = c / e = 1.871157469 \times 10^{27} = 1.216450394 / m$$

$$\text{Photon mass } m = 6.50105837 \times 10^{-28} \text{ kg}$$

$$\text{By convention Heat } H = QV = I^2 R t$$

$$3.14 \times 10^4 = (1.216450394)^2 \times 270.3156466 \times 78.5$$

The resistance  $\Omega$  of 270.3156466 = velocity / charge = 25812.8076 / 95.49135595 where velocity is the superconducting velocity of SQID discovered as resistance. Since voltage is acceleration resistance is velocity per coulomb charge.

Convention:  $V = IR$   $Q = It$   $P = VI$   $QV = H = I^2Rt$   $eVe = \text{Joules energy}$

$Q = 95.49 \text{ C}$   $I = 1.21 \text{ A}$   $R = 270.315 \Omega$   $V = 328.8255747 \text{ volt}$   $t = 78.5 \text{ s on the clock}$

Discovered: That the symbols below are attributes of a photon  $m = 5.597558071 \times 10^{-32} \text{ kg}$

$q = e = 1.60217653 \times 10^{-19} \text{ C}$   $I = 1.21 \text{ A}$   $R = c / e = I / m = 1.87 \times 10^{27} \Omega$   $t^* = 1.317091546 \times 10^{-19} \text{ s}$

Voltage = acceleration =  $1.959833975 \times 10^{23} \text{ volt or meter per second squared}$

**My discovery - Heat  $H = ea = I^2 R t^*$**

$3.14 \times 10^4 = (1.216450394)^2 \times 1.871157469 \times 10^{27} \times 1.317091546 \times 10^{-19} \text{ s}$

Heat:

**Resistance R in Ohms,**

$$QV = ea = I^2 R t \text{ and } R = \frac{\lambda (2\pi \times 10^{-7}) 137.036}{t^* \times Q} \Omega$$

$$m \times c \times \lambda = h$$

Wavelength  $\lambda = 2 \text{ Pi } r \text{ } 137.036 = 3.948541119 \times 10^{-11} \text{ m}$

$M1 = 5.59755805 \times 10^{-32} \text{ kg}$  The mass measured by electron volts eV or ea.

However the same mass m was measured differently via the resistance formula,

$M2 = 6.50105837 \times 10^{-28} \text{ kg}$  The mass measured by resistance in Ohms.

$$5.59755805 \times 10^{-32} \text{ kg} / 6.50105837 \times 10^{-28} \text{ kg} = 2 \text{ Pi } \times 10^{-7} \times 137.036$$

$M3 = F / a = I^2 / a = (1.216450394)^2 / 1.959833975 \times 10^{23} = 7.550392431 \times 10^{-24} \text{ kg}$  Newton's mass

The ratio of the two masses  $M1 / M2 = M2 / M3 = 2 \text{ Pi } \times 10^{-7} \times 137.036$ . Its one oscillator measured differently. It tells us about the spiral trajectory of light speed c and superconducting velocity.

Mass is an attribute of an oscillator measured differently by eV,  $R=I/m$  and  $F=ma$ . These experimental mass measures differ by a rotational factor of  $2 \text{ Pi } \times 10^{-7} \times 137.036$ . This is seen in Planck's derivation and in every eV measure in particle accelerators. That's how I resolved Fermi labs 144 GeV as my predicted 186-ether. Fermi calls it a new force which is in-fact the ancient ether. I used an example of a water heater to drive home our misunderstanding of the terms current voltage and resistance. On one page an engineer, physicist and chemist can get a clear understanding of mass via a 11<sup>th</sup> grade problem.