

# A Deeper Understanding of 5 Experiments

BY

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Exp. 1 – The Water Heater

Exp. 2 – Electrolysis of Water

Exp. 3 – The Simple Atomic Pendulum

Exp. 4 – Ionization Energy of an H-atom

Exp. 5 – Gravitational Lensing

# Experiment is better than theory

Equations must work for all experiments

Equations must explain all phenomena on macro and micro scale

Reality is independent of the observer

Use of addition subtraction multiplication division

Mass Frequency & Radial length

Dimensional homogeneity for empirical equations

# EXP 1. The Water Heater

Reveals the existence of a photon in electrical heating of water whose mass varies by a factor of  $2\pi \times 10^{-7} \times 137.036$  depending on the method of measurement

## EXP 2. Electrolysis of Water

A **transient proton mass** which is lighter than a proton forms when current is introduced thru water. The **time period** or inverse **frequency** of this transient proton mass is the time on the **clock** for hydrogen atoms to discharge at the cathode.

## EXP 3. The Simple Atomic Pendulum

The equation for frequency of the oscillations of a mass hanging on a string of a pendulum is related with acceleration due to gravity **g**. If **g** is replaced with voltage **V** from experimentally measured electron volts **eV** one can derive the frequency of any atom or electron or photon. This is the unification of gravity with electromagnetism at the pendulum.

## EXP 4. Ionization Energy of a H-atom

Ionization Energy of a Hydrogen Atom - Electron volts eV needed to eject an electron from a gaseous hydrogen atom does not correspond with 511 keV that of an electron.

This discrepancy of **13.6 eV** and **511 keV** begs a question - How does an electron emerge at 13.6 eV instead of 511keV?

## Experiment 5 – Gravitational Lensing

The effect of earth's acceleration due to gravity causes the effect known as gravitational lensing as observed in nano frequency shift in satellite communication. Earth's acceleration is due to **186-ether**. Gravitational lensing is shown to be an ether phenomenon.



# Note

Every experiment is taken from a 11<sup>th</sup> grade Physics or Chemistry text book

All data obtained from experiment or CODATA

The deeper meaning is deduced from common knowledge

# EXP 1. The Water Heater

- Consider  $3.14 \times 10^4$  eV heat from 400 Watts of power generated over 78.5 seconds.
- $E = QVe = 5.030834304 \times 10^{-15} \text{ J} = mc^2$
- $m = 5.597558071 \times 10^{-32} \text{ kg}$
- Utilizing  $q^2 = m \times r \times 10^7$
- $r = 4.585874056 \times 10^{-14} \text{ m}$
- Wavelength  $\lambda = 2 \text{ Pi } r \text{ } 137.036 = 3.948541119 \times 10^{-11} \text{ m}$
- $c = \lambda \times f$  and so  $f = 7.592486667 \times 10^{18} \text{ Hz}$
- Acceleration  $a = 25812.8076 \times f = \text{volt} = 1.959833975 \times 10^{23} \text{ m/s}^2$
- $QV = ea = 3.14 \times 10^4 \text{ eV}$
- $t^* = 1/f = 1.317091546 \times 10^{-19} \text{ s}$

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

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

$$\# = t / t^* = 78.5 / 1.317091546 \times 10^{-19}$$

$$\# = 5.960102034 \times 10^{20} \text{ charges or photons}$$

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

$$Q = 95.49135595 \text{ C}$$

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

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

$$Q = I t$$

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

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

$$\text{Ohms} = 1.216450394 / m$$

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

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

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

The resistance  $\Omega = 270.3156466$

$\Omega = \text{velocity} / \text{charge}$

$= 25812.8076 / 95.49135595$

where velocity is the

superconducting velocity of SQUID

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

# Electric Resistance is Constant

$$1.87 \times 10^{27} \text{ OHMS}$$

Count atoms in a pure metal

$$\text{Heat } H = QV = ea = I^2 R t^*$$

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

- Resistance R in Ohms,

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

- $M1 = 5.59755805 \times 10^{-32}$  kg The mass measured by electron volts eV or ea.
- However the *same mass m* was measured differently via the resistance formula,
- $M2 = 6.50105837 \times 10^{-28}$  kg The mass measured by resistance in Ohms.
- $5.59755805 \times 10^{-32}$  kg /  $6.50105837 \times 10^{-28}$  kg =  $2 \text{ Pi} \times 10^{-7} \times 137.036$
- $M3 = F / a = I^2 / a = (1.216450394)^2 / 1.959833975 \times 10^{23} = 7.550392431 \times 10^{-24}$  kg  
Newton's mass
- The ratio of the two masses  
 $M1 / M2 = M2 / M3 = 2 \text{ Pi} \times 10^{-7} \times 137.036.$



Mass is an attribute of an oscillator  
measured differently by

$$eV, R=l/m \text{ and } F=ma$$

These experimental mass measures differ  
by a rotational factor of

$$2 \text{ Pi } \times 10^{-7} \times 137.036$$

# EXP 2. Electrolysis of Water

- Consider the electrolysis of water where current passed  $I = 0.068$  amps for time,  $t = 18000$  seconds
- $Q = I t = 0.068 \times 18000 = 1224$  C
- $1224 / 1.60217653 \times 10^{-19} = 7.639607603 \times 10^{21}$  protons discharged at the cathode
- This can be verified by Faraday's Equation

$$\Omega = \frac{c}{e} = 1.871157469 \times 10^{27} \text{ amp} / \text{kg}$$

$$\Omega = \frac{I}{m} = 1.871157469 \times 10^{27} \text{ amp} / \text{kg}$$

$$\Omega = \frac{0.068}{m}$$

$$m = 3.63411424 \times 10^{-29} \text{ kg}$$

Transient  
mass  $m$

$$E = m \times 2\pi \times 137.036 \times c^2 \times 10^{-7}$$
$$= 2.81225386 \times 10^{-16} \text{ J}$$

$$E = h f$$

$$f = 4.24422646 \times 10^{17} \text{ Hz}$$

$$t = 1/f = 2.35614196 \times 10^{-18} \text{ s}$$

$$18000 / 2.35614196 \times 10^{-18} =$$
$$7.639607603 \times 10^{21}$$

$$c = r / t \text{ and } r = 2.99792458 \times 10^8 \times 2.35614196 \times 10^{-18}$$

$$r = 7.0635359 \times 10^{-10} \text{ m}$$

$$q^2 = m \times R \times 10^7$$

$$R = 7.0635359 \times 10^{-10} \times 10^{-7} \text{ m and}$$

$$m = 3.63411424 \times 10^{-29} \text{ kg}$$

*the transient mass change of a proton*

$$h/2e = I \times \text{Pi} \times R \times 137.036$$

$$\Phi = 0.068 \times \text{Pi} \times 7.0635359 \times 10^{-17} \times 137.0359991$$

I have deconstructed the magnetic flux quantum.

$$\Omega = \frac{I}{m_{transient}} = \frac{c}{e} = 1.871157469 \times 10^{27} \text{ m/sC}$$

Proton

$$m_{transient} = \sqrt{m_{proton} \times m_{externalphoton}}$$

$$\left(1.60217653 \times 10^{-19}\right)^2 = 1.672622216 \times 10^{-27} \times 1.5346978 \times 10^{-18} \times 10^7$$

Transient mass

$$\left(1.60217653 \times 10^{-19}\right)^2 = 3.63411424 \times 10^{-29} \times 7.06353588 \times 10^{-17} \times 10^7$$

DC introduced mass

$$\left(1.60217653 \times 10^{-19}\right)^2 = 7.89585728 \times 10^{-31} \times 3.2510334575 \times 10^{-15} \times 10^7$$

# Process

- Proton Transient mass DC introduced mass
- The energy of a proton  $E = mc^2 = 1.50327788 \times 10^{-10} \text{ J}$
- The force of 0.068 amps is  $(0.068)^2$
- $R = E / F = 1.50327788 \times 10^{-10} / (0.068)^2$
- $R = 3.2510334575 \times 10^{-8} \text{ m}$  is the radius of the photon of mass  $7.89585728 \times 10^{-31} \text{ kg}$  introduced by DC current.
- This photon impacts the proton mass and a new mass is formed  $R = 7.0635359 \times 10^{-10} \times 10^{-7} \text{ m}$  and  $m = 3.63411424 \times 10^{-29} \text{ kg}$ .

# Exp. 3-The Simple Atomic Pendulum

## Unification @ Pendulum

$$T = 2\pi \sqrt{\frac{l}{g}}$$

$$T = 2\pi \sqrt{\frac{ml}{mg}}$$

$$T = 2\pi \sqrt{\frac{ml}{F}}$$

$$T^2 = 4\pi^2 \frac{ml}{F}$$

$$F = 4\pi^2 \frac{ml}{T^2}$$

$$F = ma$$

$$T = 2\pi \sqrt{\frac{ml}{mg}}$$

$$T = 2\pi \sqrt{\frac{q^2}{I^2}}$$

$$T = 2\pi \frac{q}{I}$$

$$q = I \times T$$

$$q^2 = I^2 \times T^2$$

$$\frac{ml}{T^2} = F$$

$$F = ma$$

OHMS LAW REWRITTEN

$$V = I \times R$$

$$a \times 10^7 = \sqrt{F} \times \frac{I}{mass}$$



# EXP 4. Ionization Energy of a H-atom

Electron volts eV needed to eject an electron from a gaseous hydrogen atom does not correspond with 511 keV that of an electron.

This discrepancy of 13.6 eV and 511 keV begs a question –

How does an electron emerge at 13.6 eV instead of 511keV?

The solution is at the pendulum.

$V = a = \text{acceleration} = g$

$$\frac{eV}{e} = V$$

$$\frac{511000}{1.60217653 \times 10^{-19}} = 3.1894 \times 10^{24} \text{ Volts}$$

$$g = a = 3.1894 \times 10^{24}$$

$$F = I_1 I_2 = m \times a$$

$$F = I_1 I_2 = 2 \times 2.425434789 \times 10^{-35} \times 3.1894 \times 10^{24}$$

$$\Omega = \frac{c}{e} = \frac{I}{m} = 1.871157469 \times 10^{27} \text{ ohms}$$

$$1.871157469 \times 10^{27} = \frac{I_1}{m_1} = \frac{I_1}{9.1093826 \times 10^{-31}}$$

$$I_1 = 1.704508929 \times 10^{-3} \text{ amps}$$

$$1.871157469 \times 10^{27} = \frac{I_2}{m_2} = \frac{I_2}{2 \times 2.425434789 \times 10^{-35}}$$

$$I_2 = 9.076740842 \times 10^{-8} \text{ amps}$$

$$F = I_1 \times I_2 = 1.547138581 \times 10^{-10} \text{ Newtons}$$

$$T = 2\pi \sqrt{\frac{l}{g}}$$

$$T = 2\pi \sqrt{\frac{l \times m}{F}}$$

where  $F = I_1 \times I_2 = 1.547138581 \times 10^{-10} \text{ N}$

$$T = 2\pi \sqrt{\frac{5.291772108 \times 10^{-4} \times 2 \times 2.425434789 \times 10^{-35}}{I_1 \times I_2}}$$

$$T = 2\pi \sqrt{\frac{q^2}{I^2}}$$

$$Q = I \times T$$

Clearly, an interaction between two Rydberg photons [corresponding with Bohr's radius  $L$ ] of a hydrogen atom with one electron [corresponding with the classical electron radius,  $r$ ] yields the time period or its inverse, the frequency of an electron. This is how 13.6 eV yields an electron measure of 511keV.

# Touch on topics to understand the Atomic Pendulum

1. The reason for the Coulomb constant
2. Torus versus toroid
3. Acceleration of a toroid is  $10^{-7}$  less than acceleration of a torus
4. Rydberg number in H-atom spectra
5. Ionization energy and eV of an electron
6. eV of a Rydberg photon produces CMBR
7. Gamma factor and 2 Rydberg photons

# The Coulomb Constant k

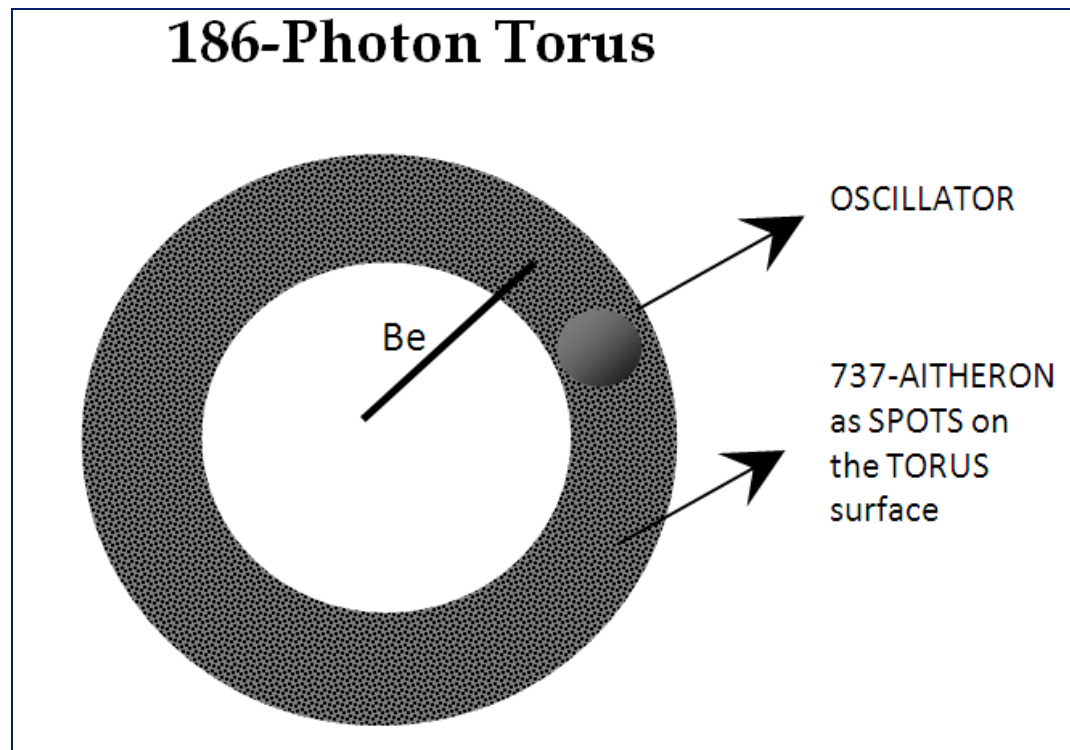
1. An electron is a photon
2. The mass of an electron divided by the 737-wavemaker of mass  $7.37 \times 10^{-51}$  kg yields the frequency of an electron
3. A 186-ether torus [tube] with an electron or photon [ball]comprises a twin mass
4. The number of tori is the reason for k

# Twin Mass – Ether & Matter

$$M_{\text{ETHER}} \times v = M_{\text{PHOTON}} \times c$$

$$\text{Current } I = M_{\text{ETHER}}/e \times v = M_{\text{PHOTON}}/e \times c$$

Point mass 737-wavemaker must exist





# 737 Wave-Maker

The energy of 737 equals the Planck's constant times one second

$$7.37 \times 10^{-51} \times c^2 = h \times 1.0$$

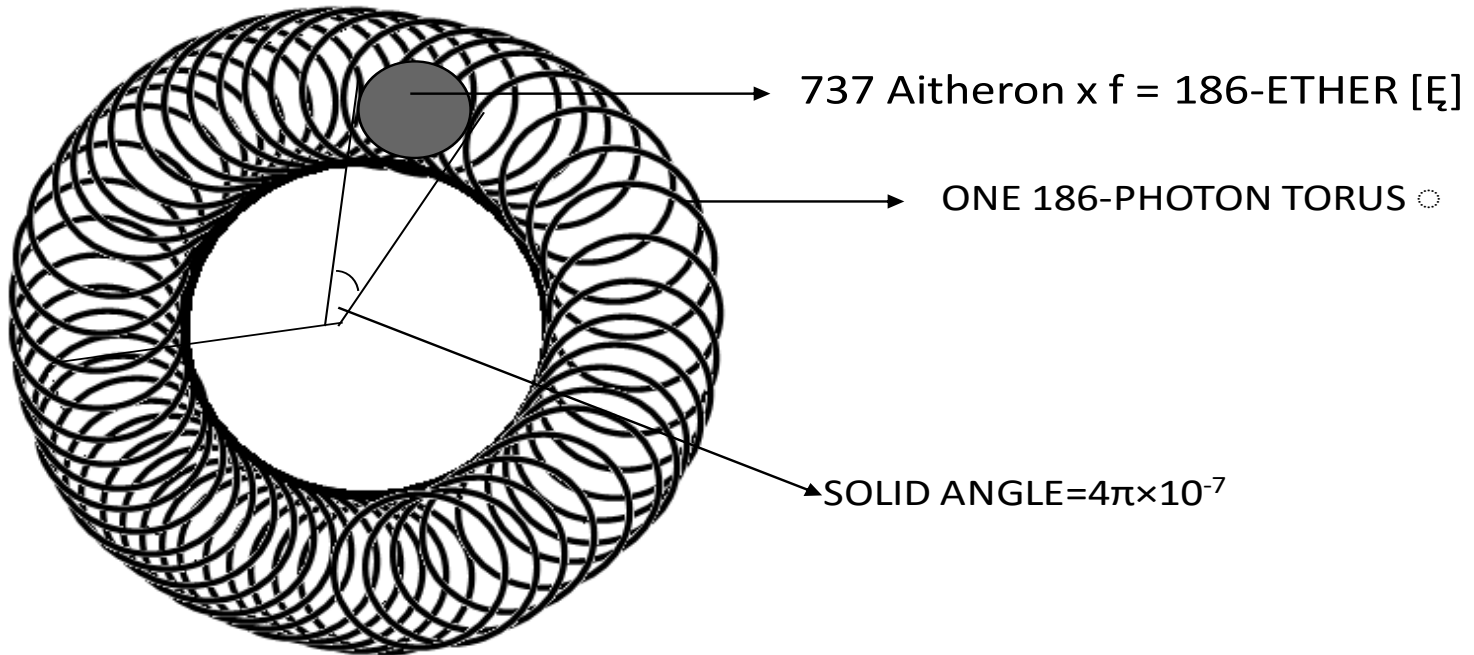
$$1.86 \times 10^{-9} \times V_{Rk} = 7.37 \times 10^{-51} \times c^2 / 1.38 \times 10^{-29} \times 1.0$$

So, the **imposed condition** is **1 second** for the wave-maker to exist.

# ETHER TOROID [ᵀ]

$186 \text{ ether} \times \text{velocity} \times \text{Boltzmann radius} = \text{Planck's } h$

$$1.86 \times 10^{-9} \times 25812.8075 \times 1.380668 \times 10^{-29} = h$$



# Twin Mass Structure

## Ether Mass and associated charge

$7.3724964 \times 10^{-51}$  kg Oscillator x frequency , f = Photon  
mass

$$c = f \times \lambda$$

$$7.3724964 \times 10^{-51} \text{kg} \times 2.521836304 \times 10^{41} = 1.859222909 \times 10^{-9} \text{kg}$$

(Matter) x # = (Elementary charge / oxidation state)

$$1.859222909 \times 10^{-9} \text{ kg Torus} \times \# = 4.688655828 \times 10^{32} \text{ kg}$$

(186-ether)

$$\frac{\textit{ethermass}}{1.346611109 \times 10^{27} \text{ kg} / m} = 348181.8765m$$

# Coulomb's Constant $k$

Path length of Light in a Toroid

$$k = c^2 \times 10^{-7}$$

Velocity squared =  $v_1 \times v_2$

$$25812.8076 \times 3.481818765 \times 10^5 = k$$

$$2\pi \times 137.0359999 \times 3.481818765 \times 10^5 = c$$

$10^7$

Squared light speed  $c^2$

$25812.8076 \times 3.481818765 \times 10^{12}$

An attribute of a photon in a 186-torus

$$\lambda = 2\pi \times R \times 10^{-7} \times 137.036 \text{ m} = 9.112670523 \times 10^{-8} \text{ m}$$

Coulomb constant  $k = c^2 \times 10^{-7}$

$25812.8076 \times 3.481818765 \times 10^5$

An attribute of a toroid

# Twin Mass Structure

## Ether Mass and associated charge

$$7.372496 \times 10^{-51} \text{ kg Oscillator} \times \text{frequency, } f = \text{Photon mass}$$

$$c = f \times \lambda$$

$$9.1093826 \times 10^{-31} \text{ kg} \times \# = 1.859222909 \times 10^{-9} \text{ kg}$$

(Matter)                      (Elementary charge / oxidation state)

$$1.859222909 \times 10^{-9} \text{ kg Torus} \times 2.040997717 \times 10^{21} = \text{Ether Mass}$$

(186-ether)

$$\frac{3.794669713 \times 10^{12} \text{ kg}}{1.346611109 \times 10^{27} \text{ kg} / m} = \text{radius of electron, } r$$

# Twin Mass Structure

## Ether Mass and associated charge

$$7.372496 \times 10^{-51} \text{ kg Oscillator} \times \text{frequency, } f = \text{Photon mass}$$

$$c = f \times \lambda$$

$$7.372496 \times 10^{-51} \text{ kg} \times \# = 1.859222909 \times 10^{-9} \text{ kg}$$

(Matter) (Elementary charge / oxidation state)

$$1.859222909 \times 10^{-9} \text{ kg Torus} \times 2.040997717 \times 10^{21} = \text{Ether Mass}$$

(186-ether)

$$\frac{3.794669713 \times 10^{12} \text{ kg}}{1.346611109 \times 10^{27} \text{ kg} / m} = \text{radius of electron, } r$$

# Gamma Factor Solved

So in the previous slide I have the acceleration of an electron from  $eV$  which is  $g$  in the pendulum equation

Next is the Bohr radius and its origins in the solution to the gamma factor



Bohr's velocity  $v = c/137.036$

Einstein's equation  $E = mc^2$  can be rewritten in his own format as

$$E = mc^2 - mv^2 = 2m^*c^2$$

$$m (c^2 - v^2) = 2m^*c^2$$

$$m (1 - v^2/c^2) = 2m^*$$

Here the oscillator,  $m$  represents the mass of an electron. However the oscillator mass could be of any mass other than an electron. The periodic table will be rewritten.

Velocity,  $v = c/137.036$

$$2m^* = \text{twice the Rydberg mass} = 2 \times 2.425434789 \times 10^{-35} \text{ kg}$$

Since mass is inversely proportional to time period

$$T^* (1 - v^2/c^2) = T$$

I always wondered where the ionized electron got its impact momentum from.

$$2m^* c^2 = m v^2$$

or the energy of the Rydberg photon equals the kinetic energy of the electron

$$\text{i.e. } m^* c^2 = \frac{1}{2} m v^2$$

The Rydberg photon is the reason for the spectra in the H-atom.

$m^* c \lambda = h$  where the inverse of wavelength is the Rydberg wave number.

I have thus solved Einstein's equation by giving meaning to the terms in  $E = m c^2$

ON A TRAIN FROM  
BERLIN TO PARIS  
Date: 10-10-10  
Hemendra  
Einstein Straße  
A1ther137

$\pm m_e = \text{mass of an electron} = 9.1093826 \times 10^{-31} \text{ kg} = \text{mass of positron}$

$m_{\text{Ryd}} = 2.425434789 \times 10^{-35} \text{ kg}$

$m_{e^+} = 9.108897513 \times 10^{-31} \text{ kg}$

forms when a positron gives up 2 Rydberg photons

Gamma factor =  $\frac{1-v^2}{c^2} =$

$2 m_{\text{Ryd}} = 4.850869578 \times 10^{-35}$

$c^2 \left[ \left( \frac{9.1093826 \times 10^{-31}}{m_{e^-}} \right) - \left( \frac{9.108897513 \times 10^{-31}}{m_{e^+}} \right) \right] = 2 m_{\text{Ryd}} \cdot c^2$

$\frac{9.108897513 \times 10^{-31}}{m_e} = 0.999946748 = \gamma_{\text{factor}}$

of the electron

$f = \frac{1}{2\pi} \sqrt{\frac{a}{L}}$

Bohr Radius  $r^2 = 2 m_{\text{Ryd}} \times \text{Bohr Radius}$

$\frac{1}{2} \text{KE of } e^- = c^2 [(m_{e^-} - m_{e^+})] = \frac{2}{2} m_{\text{Ryd}} \cdot c^2$

$[m_{e^-} - m_{e^+}] c^2 = \frac{1}{2} m_e \times v^2$  where  $\frac{c}{137.036} = v$

Pair Production (ONE Ryd Photon X 13.6 eV Photon) 2 electrons are formed

69 million form the H-atom at 13.6 eV stream

1 Electron exits as  $m_{e^-}$   
 $\frac{1}{2} m_e v^2$

1 Positron (Endows the proton with +)

loses 2 Rydberg photons

1 Rydberg  
1 Rydberg we call BE

Back to the proton

$\frac{c^2 - v^2}{c^2} = 0.999946748$

$\frac{c^2}{137.036^2} = v^2$

$1 - \frac{v^2}{c^2} = 1 - 0.0000532513538 = 0.999946748$

# The Rydberg Wave Number $\nu$

- Mass,  $m$   $2.425434789 \times 10^{-35}$  kg

- Radius,  $R$   $1.058354422 \times 10^{-3}$  m

$$q^2 = 2.425434789 \times 10^{-35} \times 1.058354422 \times 10^{-10} \times 10^7 C^2$$

Wavelength  $\lambda = 2\pi \times R \times 10^{-7} \times 137.036$  m =  $9.112670523 \times 10^{-8}$  m

- Wavenumber  $\nu = 10973731.55$  m<sup>-1</sup>

# THE CMBR IS FROM A RYDBERG PHOTON

Apply Planck's BB Eq.

$$0.014399644 = \lambda \times T$$

$$0.014399644 = 1.058354422 \times 10^{-3} \times T$$

$$T = 13.60569175 \text{ K} = \text{eV} = \text{ea}$$

*The first I.E of an H-atom*

$$T = 13.60569175 \text{ K} = eV = ea$$

$$a = \frac{13.60569175}{1.60217653 \times 10^{-19}} = 8.492005403 \times 10^{19} \text{ m/s}^2$$

$$a = c \times f$$

$$f = \frac{8.492005403 \times 10^{19}}{2.99792458 \times 10^8} = 2.832628099 \times 10^{11} \text{ Hz}$$

***THE CMBR FREQUENCY 283GHz***

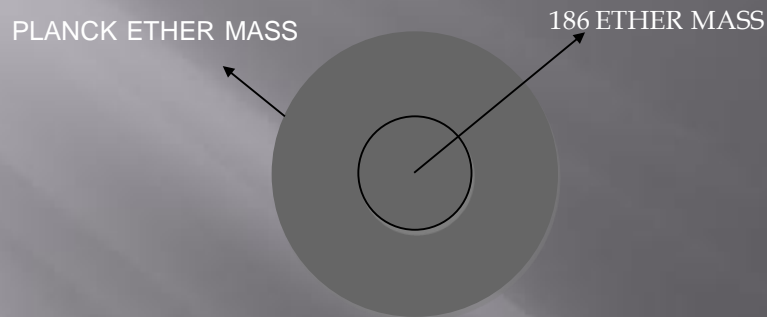
# Exp. 5 – Gravitational Lensing

*Clock*  $\equiv$  Time period  $\equiv$  Photon frequency  $^{-1}$

The prediction of GRT is correct with respect to slowing of time period when photon mass in detectors or emitters are in higher orbits above the earth. The modified gravitational lensing equation proves that earth's gravitational field alters frequency of the photon in the emitter on earth and detector in space. Photons have mass. The photon mass pulsates at a frequency. The frequency change to a lower frequency at higher orbits is called time dilation. This is red shift. 186-ether transmits light of this source photon across space. Photons do not travel. At higher orbits the ether wave is red shifted. At lower orbits the ether wave is blue shifted. The true meaning of gravitational lensing is empirically proved with and only with ***photon mass*** in instruments and 186-ether waves.

# My Discoveries

## ETHER IN DYNAMIC PULSATE MOTION 186-Torus Cross Section



$$m_{pl} \equiv \sqrt{\frac{\hbar c}{G}} = \text{Planck Mass} = 2.176450474 \times 10^{-8} \text{ kg}$$

$$\text{or } \pi B^2 \cdot 137.036 = \pi \cdot (\text{Plancklength})^2$$

I have discovered this correspondence in  
the dynamic living pulsations of ether

$$B = 1.380668031 \times 10^{-36}$$



A grade 12 Physics text book query:  
How  $2.4 \times 10^{-3}$  Hz?

Consider an emitted frequency on earth of

$$1.1 \times 10^8 \text{ Hz}$$

$2.0 \times 10^5 \text{ m}$  above the earth a satellite detects  
a frequency shift of

$$2.4 \times 10^{-3} \text{ Hz}$$

$$E = h \cdot f = 6.6260693 \times 10^{-34} \times 1.1 \times 10^8 \text{ J}$$

$$E = 7.28867623 \times 10^{-26} \text{ J}$$

$$E = m \cdot c^2$$

$$m = \frac{E}{c^2} = \frac{7.28867623 \times 10^{-26}}{c^2} \text{ kg}$$

$$m = 8.10974602 \times 10^{-43} \text{ kg}$$

Now, consider the gravitation potential experienced by this photon mass.

$$E = m \cdot g \cdot h$$

$$E = 8.10974602 \times 10^{-43} \times 9.804 \times 2.0 \times 10^5 \text{ J}$$

$$E = 1.590159 \times 10^{-36} \text{ J}$$

$$E = 1.590159 \times 10^{-36} \text{ J} = h \cdot f$$

$$f = \frac{E}{h} = \frac{1.590159 \times 10^{-36}}{6.6260693 \times 10^{-34}} \text{ Hz}$$

$$f = 2.4 \times 10^{-3} \text{ Hz}$$

By GRT convention,  
photons are mass-less

$$\frac{\Delta f}{f} = \frac{g \Delta h}{c^2}$$

And now modified, photons with mass  
m amidst the decorations

$$\frac{\Delta f}{f} = \frac{m \cdot g \Delta h}{m \cdot c^2}$$

$$G = \frac{1.380668031 \times 10^{-86}}{1.859222909 \times 10^{-9}} \cdot c^2$$

$$K = \frac{m}{r} = \frac{\rho}{B} = \frac{1.859222909 \times 10^{-9}}{1.380668031 \times 10^{-86}} = 1.346611109 \times 10^{27} \text{ kg/m}$$

$$\text{Ether} = 1.346611109 \times 10^{27} \times 6.371 \times 10^6 = 8.57926 \times 10^{33} \text{ kg}$$

Mass of earth  $\times c^2 =$  Mass of entrained ether  $\times v^2$

where  $v^2/r = 9.8 \text{ m/s}^2$

***acceleration due to ether***

Velocity squared of light speed  $c^2$

$$25812.8076 \times 3.481818765 \times 10^{12}$$

An attribute of a photon in a 186-torus

Coulomb constant  $k$

$$25812.8076 \times 3.481818765 \times 10^5$$

An attribute of a torroid

Boltzmann constant  $k$  – *no meaning*

$$2\pi \times 10^{-7} \times 137.036 \times e = k$$

$$P V = k T$$

$$\frac{I^2}{R_1 \times R_3} \times R_1 \times R_2 \times R_3 = 2\pi \times 10^{-7} \times 137.036 \times e \times e \times a$$

$$\text{Temperature, } T = e \times a$$

$$\text{Wien: } 2.9 \times 10^{-3} = \lambda T = \lambda \times e a$$

$$\text{Planck: } 0.0144 = \lambda \times e V$$

$$\frac{F}{A} \times V = 2\pi \times 10^{-7} \times 137.036 \times E$$

$$E^* = (8.610225384 \times 10^{-5}) E$$

# Larmor frequency & precession solved

$$\omega = 2u_e B \frac{2\pi}{h} = 2\left(\frac{h}{2\pi} \times \frac{e}{2m_e}\right) B \frac{2\pi}{h}$$

$$u_e = 9.274009408 \times 10^{-24} \text{ J / Tesla}$$

$u_e$  *Magneton*

$$B = 60487.75593 \text{ Tesla}$$

$$\omega = \frac{e}{m_e} B = \frac{e}{m_e} \times \frac{I}{r_e} = \frac{e}{e^2} \times \frac{e}{t} \left[ \text{where } \Omega = \frac{I}{m_e} = 1.87 \times 10^{27} \Omega \right]$$

$$\omega = \frac{1}{t} = f = 1.063870815 \times 10^{16} \text{ Hz} [\text{angular, } f]$$

$$\text{Larmor, } f = \frac{\omega}{2\pi} = 27.99249144 \text{ MHz} [1 \text{ Tesla}]$$

$$E = hf = 6.6260693 \times 10^{-34} \times 1.063870815 \times 10^{16}$$

$$E = 7.049281746 \times 10^{-18} \text{ J}$$



# Electron Precession Under Tesla Influence

$$E = 7.049281746 \times 10^{-18} \text{ J}$$

$$E = mc^2$$

$$m = 7.84338373 \times 10^{-35} \text{ kg}$$

$$\frac{m}{m_e} = \frac{7.84338373 \times 10^{-35}}{9.1093826 \times 10^{-31}} = 2\pi \times 10^{-7} \times 137.036$$

$$E = mc^2 = kT$$

$$T = 511 \text{ keV}$$

# Empirical Equations Obey

## A Twin Mass – Photon in 186-tube

Photon mass, $m$ and radius, $r$ $737 \times \text{frequency} = m$	$h = m \times Rk \times r$ Associated with the Von Klitzing constant, $Rk$
Charge squared of a photon particle, $q^2$	$q^2 = m \times r \times 10^7 \text{ C}^2$ Photon mass pulsates thru radius, $r$
The ether wave	$\lambda = 2\pi \times r \times 137.036 m$ Created by a photon of radius, $r$
Cross section area, $A$ of a photon	$A = \pi \times (r)^2 \times 137.036 \text{ m}^2$ The photon radial extension of 137.036 is involved
Current, $I$	$\frac{1.16 \times 10^{10} \times v}{1C} \text{ A} \quad \text{or} \quad \frac{m \times c}{e}$ The momentum of 116-ether & rolling photon
Current squared, $I^2$	$I^2 = F, \text{ force } N$ Unity of electric current and the force of gravity

# EM – of a twin mass

Magnetic field, $B$	$B = \frac{I}{r} \text{ A/m}$ <p>Current per photon radius</p>
Electric field, $E$	$E = \frac{I}{t} \text{ A/s}$ <p>Force per unit elementary photon charge</p>
Resistance, $R$	$R = \frac{I}{186} = \frac{v}{q} = \frac{I}{m} \text{ A/kg}$ <p>Current associated with one 186-ether mass or one photon</p>
Magnetic flux, $\Phi_B$	$\Phi_B = \frac{I}{r} \times A \quad \text{or} \quad \Phi_B = I \times \pi \times r \times 137.036 \text{ Wb}$ <p>The angular momentum of 116-ether</p>
Electric flux, $\Phi_E$	$\Phi_E = \frac{I}{t} \times A \quad \text{or} \quad \Phi_E = eV \times R; \quad R = \pi \times r \times 137.036 \text{ A.m}^2/\text{s}$ <p>Current thru a cross section area of a photon in time</p>

# Electron volts eV = Heat H

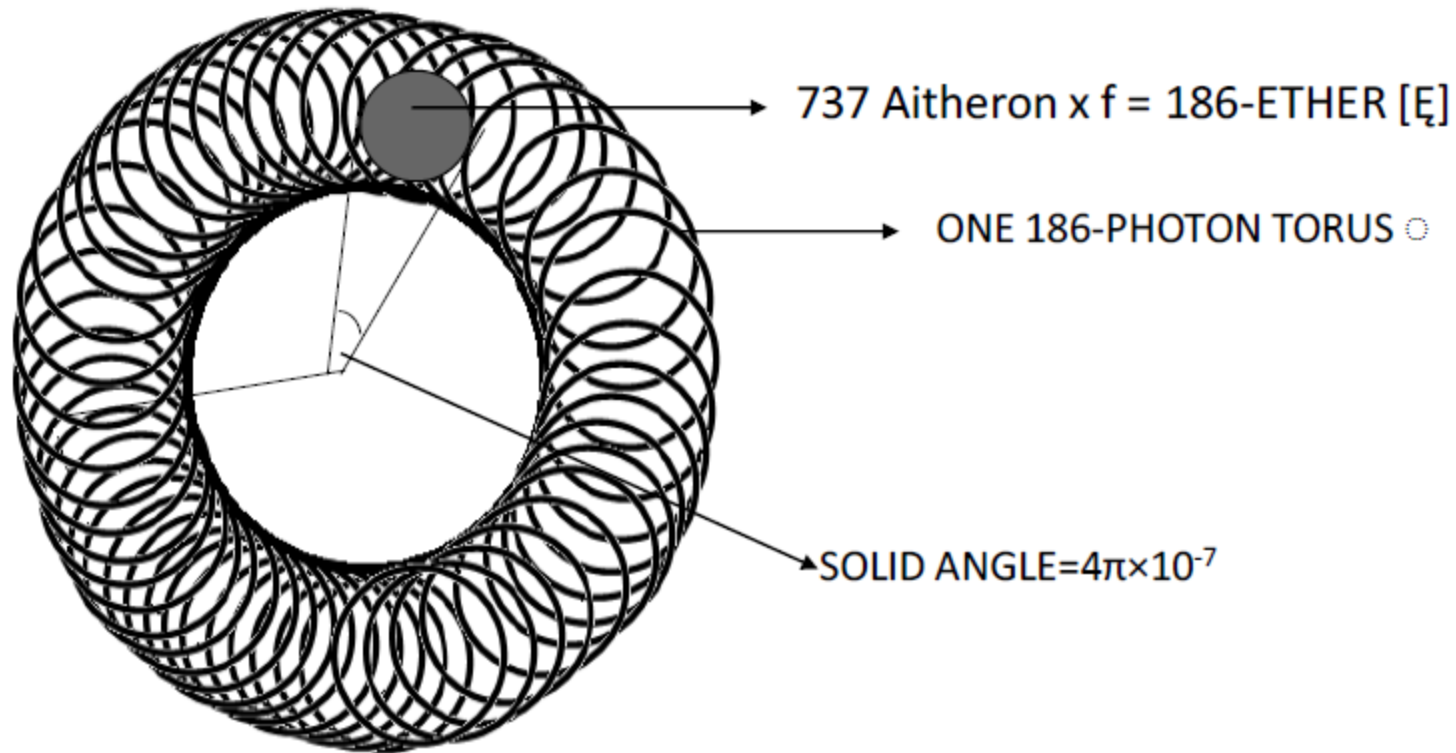
<p>Electron volts, <math>eV</math></p>	$eV = r \times E = r \times \frac{F}{q} \text{ N.m/C}$ <p>Electric field acting thru a distance, <math>r</math></p>
<p>Heat, <math>H</math></p>	$H = \frac{1.16 \times 10^{10} \times v^2}{1C} \text{ J}$ <p>Energy associated with 1 coulomb of ether</p>
<p>Voltage, <math>V</math></p>	<p>The gravitational acceleration of a photon body</p>
<p>Source of light speed, <math>c</math></p>	$c = \frac{r}{t} = \frac{1.380668031 \times 10^{-29}}{4.605412826 \times 10^{-38}} \text{ m/s}$ <p>The pulsate velocity of 186-ether</p>

186-Ether force, $F$	$F = 1.210273708 \times 10^{44} N$ The force of 186-ether at speed of light, $c$
Electron Photon force, $F$	$F = 29.05350661 N$ The force of an electron - a photon at pulsate speed, $c$
Ether contained within photon radius, $r$	$r \times 1.346611109 \times 10^{27} kg$ The ether mass consists of myriads of 186-ether
Planck derivation BB	$0.0144 = \lambda T^* = \lambda eV$ where $T^* = eV$ mass equivalent
Wien's law BB	$2.9 \times 10^{-3} = \lambda T = \lambda eV$ where $T =$ Kelvin temperature
Ideal gas equation	$\frac{I^2}{R_1 \times R_3} \times R_1 \times R_2 \times R_3 = 2\pi \times 10^{-7} \times 137.036 \times e \times e \times a$
Boltzmann constant	$2\pi \times 10^{-7} \times 137.036 \times e$

# ETHER TOROID [T]

$186 \text{ ether} \times \text{velocity} \times \text{Boltzmann radius} = \text{Planck's } h$

$$1.86 \times 10^{-9} \times 25812.8075 \times 1.380668 \times 10^{-29} = h$$



# SIGNIFICANCE

## 5 experiments point to structure

Bohr radius

Rydberg constant

2Rydberg photons

Compton wavelength

186-ether

Coulomb constant

Velocity squared

Speed of light squared

Black body radiation

Planck and Wien equations

SQUID

FTL

Newton's G

Electric & Magnetic Fields

737-oscillator

The pendulum equation

Boltzmann constant

Ideal gas equation

Maxwell drift velocity

Gamma factor

Earth's acceleration g

Gravitational lensing

Redefining Ohms Law

Charge squared equation

Ether constant

Ether force

Electron volt

