Dahl Winters: Pascals, proton electron ratio & Bjerknes forces 2.0

(((((c^7) / (hbar * (G^2)))) / ((3.5722072e+34 * 9.1224509E+20)^2)) / (0.5pi))^(1 / 3) = 6.52464029327

(planck length)*1.50122737E+23 = 2.4263263-12 m
Compton wavelength

2pi*hbar/2.4263263e-12m*c = 510995.563 eV

(1 / ((((1.50122737E+23^4) / 6.5248935) / (8^0.5))^0.25)) / Boltzmann constant = 1.00000 m-2 kg-1 s2 K

1 / ((((Boltzmann constant^4) / 6.5248935) / (8^0.5))^0.25) = 1.50122737e+23 m-2 kg-1 s2 K

Electron parameters

((((4pi) / 3) * ((2.4263102367E-12 m)^3) * (9.1224509E+20 pascals)) / (c^2)) / electron mass = 0.666666666 = Koide Formula & Larmor Power Formula

(((2pi) * 9.1224509E+20 pascals * ((2.4263102367E-12 m)^3)) / (c^2)) = electron mass

Photon in Flight

1 / (((((4pi) / 3) * ((2.4263102367E-12 m)^2) * (1.36836764e+21 pascals)) / (c^2)) / electron mass) = 2.42631023e12 meters

Rest Mass of electron

1/(((4pi/3 * ((2.4263102367E-12 m)^3) * (1.36836764e+21 pascals)) / (c^2)) = electron mass

https://en.wikipedia.org/wiki/Koide_formula

https://en.wikipedia.org/wiki/Larmor_formula

(((2pi) /(3^0.5 planck length/m) pascals^-1) * ((8.74931845e-16 m)^3)) / (c^2)) = proton mass

(((2pi) * (3.5722072e+34 pascals) * ((8.74931845e-16 m)^3)) / (c^2)) = proton mass

https://physics.nist.gov/cgi-bin/cuu/Value?rp = 0.8751(61) x 10-15 m

(((2pi) * 9.1224509E+20 pascals * ((2.4263102367E-12 m)^3)) / (c^2)) = electron mass

(((c^9) / ((G^3) * hbar))^0.5) / ((c^7) / (hbar * (G^2))) = 5.39115755e-44 seconds

(Planck Viscosity)/(Planck Pressure) = (Planck Time)

1 / ((9.12226973e+20 pascals * ((2.4263263e-12 m) / c)) / (9.12226973e+20 pascals)) = 1.23558178e+20 hertz

2.4263e-12 m & 5.1100e+5 eV & 1.23558178e+20 hertz

((((2.4263263e-12 / 8.749565015e-16) * (2pi))^6) / (6.5248935 / (2pi))) / (c^3) = 1 s3 / m3

(((6.5248935 / (2pi)) / (c^3)) * G * (2pi)) / planck length = 1 m-1 kg-1 s

((((((2.4263263e-12 / 8.749565015e-16) * (2pi))^6) / G) * planck length) / (6.5248935^2)) * (2pi) = 1 kg s2 / m2

((((((2.4263263e-12 m) / (8.749565015e-16 m)) * (2pi))^6) * planck length) / ((6.5248935 ((kg m) / s))^2)) * (2pi) = 6.67408002e-11 m-1 kg-2 s2

4 / ((((3.5722072e+34 pascals) / (9.1224509E+20 pascals)) * 5) / (c^2)) = 1836.14209 m2 / s2

c / (1836.15267389 * 376.730313462 * (10^0.5)) = 137.050728 m / s

1 / (1836.15267389 * (10^0.5) * (4e-7 * pi)) = 137.050727916

1 / (137.035999172 * 1836.15267389 * (10^0.5)) = 0.00000125677

(1 / (137.035999172 * 1836.15267389 * (10^0.5))) / (4e-7pi) = 1.00010748084

((137.035999172 * 1836.15267389 * (4e-7pi))^2) * 10 = 0.99978507296

(c / ((((137.035999172 * 1836.15267389)^2) * 10)^0.5)) / 376.730313462 = 1.00010748 m / s

(c / (((1836.15267389^2) * 10)^0.5)) / 376.730313462 = 137.050728 m / s

(c / (((137.035999172^2) * 10)^0.5)) / 376.730313462 = 1836.35003 m / s

https://drive.google.com/open?id=1r5byv4Ve0fE6mbJWm7JUM8hXeb6xBFok

https://drive.google.com/file/d/1RPhYYtYSBkyBrFxGy09lSNhLygX3HCir

https://drive.google.com/file/d/1r5byv4Ve0fE6mbJWm7JUM8hXeb6xBFok

https://drive.google.com/file/d/16XVzw440b_lEkt64NfG7W5gfTpHjAB5J

((((((10973731.568508^0.5) / 376.730313462) * 1e7) / 137.035999172)^2) / m) * (2pi) * c * hbar) / eV = 510493.471

((((10973731.568508)^0.5*1e7/137.035999172)))^2/m*2pi*hbar /(electron mass*c))^0.5 = 376.543938452

((((((1e7 / 137.035999172)^2) / m) * (2pi) * hbar) / ((electron mass * c) / 10973731.568508))^0.5) / c = 1.25601538-6 s / m

(((((1e7^2) / m) * (2pi) * hbar) / ((electron mass * c) / 10973731.568508))^0.5) / 376.730313462 = 136.968205

1 / ((((((1 / 376.730313462) * 1e7) / 137.035999172)^2) * (2pi) * c * hbar) / (electron mass * (c^2))) = 10984597.4 m-1

Electron
(((2pi) * 9.1224509E+20 pascals * ((2.4263102367E-12 m)^3)) / (c^2)) = electron mass

Muon mass
((((2pi) * (1.6676165e+30 pascal)) / (c^2)) * ((1.1734e-14 m)^3)) = (1.88353159e-28 kg)

Tauon
((((2pi) * (1.3335206e+35 pascal)) / (c^2)) * ((6.9779e-16 m)^3)) = (3.16746933e-27 kilograms)

(9.1224509E+20 + 1.6676165e+30 + 1.3335206e+35) / (((9.1224509E+20^0.5) + (1.6676165e+30^0.5) + (1.3335206e+35^0.5))^2) = 0.99297700793

Electron

(2pi * hbar * c) / (electron mass * (c^2)) = 2.42631024e-12 meters

Muon
((2pi) * hbar * c) / ((1.88353159e-28 kilograms) * (c^2)) = 1.17344411e-14 meters

Tauon
((2pi) * hbar * c) / ((3.16746933e-27 kilograms) * (c^2)) = 6.97787043e-16 meters

Dahl's constant 1.50122737E+23

(1.50122737E+23^4) / 6.5248935) / (8^0.5))^0.25) = Boltzmann constant

Pc * rc^4 = Ppl * rpl^4 where:
Pc = Dahl's vacuum pressure constant, 9.12245e20 Pa
Ppl = Planck pressure, 4.63324e113 Pa
rc = Compton radius of the electron, 2.42631e-12 m
rpl = Planck length, 1.61623e-35 m

This is recognizable as Boyle's law for gases, except instead of having a 3D volume we are dealing with r4 which indicates a 4D hypervolume. Boyle's law is simply this:

P1V1 = P2V2

Dahl also found that 4pi^2 / ag (ag is the gravitational coupling constant) equals (ppl * 4pi * rpl^2) / (pc * 4pi * rc^2) where:
ppl = Planck density, 5.15518e96 kg/m3
rpl = Planck length, 1.61623e-35 m
pc = Dahl's vacuum density constant, 1.01501e4 kg/m3
rc = Compton radius of the electron, 2.42631e-12 m

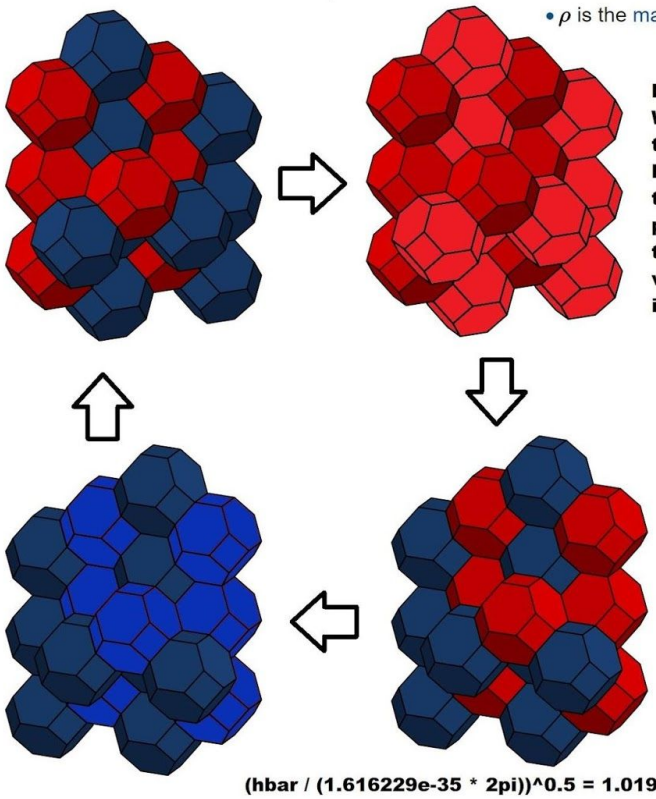
Of course, Dahl's vacuum pressure constant Pc divided by Dahl's Vacuum density constant pc = the speed of light squared, showing that the units work out:

(((6.666666666e-11 / 2) * pascals) / (3.7037037037037e-28 * (kg / (meter^3))))^0.5 = 300000000 m / s

$$f_0 = \frac{1}{2\pi R_0}\sqrt{\frac{3\gamma p_0}{\rho}}$$

where:

- γ is the specific heat ratio of the gas
- R_0 is the steady state radius **3.7037e-28 meters**
- p_0 is the steady state pressure **6.666e-11/2 Pascals**
- ρ is the mass density of the surrounding liquid **3.70373-28 kg**



Pulsation

When bubbles are disturbed, they pulsate (that is, they oscillate in size) at their natural frequency. Large bubbles (negligible surface tension and thermal conductivity) undergo adiabatic pulsations, which means that no heat is transferred either from the liquid to the gas or vice versa. The natural frequency of such bubbles is determined by the equation:

$$f_0 = \frac{1}{2\pi R_0}\sqrt{\frac{3\gamma p_0}{\rho}}$$

$$\frac{-p^2}{\hbar^2} + \frac{E^2}{\hbar^2 c^2} - \left(\frac{mc}{\hbar}\right)^2 = 0$$

$$-p^2c^2 + E^2 - m^2c^4 = 0$$

$$E^2 = p^2c^2 + m^2c^4$$

$$E = \pm\sqrt{p^2c^2 + m^2c^4}$$

(hbar / (1.616229e-35 * 2pi))^0.5 = 1.01905282 = (Planck Momentum)^0.5

((3.7037037037e-28 m) / (1.666666666e-35 m)) / (3e+8 / 1822.5) = 135

((Friedman Length m) / (Planck Length)) / (speed of light / (Proton Electron Mass Ratio)) = Fine Structure Constant