

# PHYSICS AND MATHEMATICS OF THE THEORY OF THE WHOLE

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**Abstract:** Science has come to formulate the theory of the Whole, where in the universes that function, they are governed by laws and formulas, determined by the Gods, the dimensionless zeros, and pass into nature through the center of control of the universes.

New mathematics is formulated and founded, which derives from principles, which are logical and which were formulated by the ancient Greek philosophers,

The result is a new physics, obedient to the strict laws of logic formulated by Aristotle.

The consistent definition of time is formulated, which was first formulated by Aristotle and which was repeated by Augustine, and which has the consequence, with the clarifications I make, that there is the possibility of freezing it from the control center of the universes.

The new nature and the mathematics that govern it, abolish the concept of time, which now has the dimensions of a second and whose new meaning will be with the previous freeze that will be brought by the creator, who is from and needs the synergy of the Gods. The new time will have other dimensions.

**Keywords:** mathematics, new physics, control center, ancient Greek philosophers.

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## 1. INTRODUCTION

The philosophical theory of the Whole, with its necessary physics, is presented as an introduction to mathematics and the physics that governs it.

The preliminaries are listed, in order to follow the mathematics.

The mathematics of discrete calculus is formulated, with the innovations they bring. These are based on the principle of indivisibility, discrepancy, and in nature there are islands of particles, such as molecules or atoms, which are distinct and assumed for the sake of the construction of mathematics, by convention as indivisible.

In a reality where matter is constantly divided, divided infinitely times, in a course that has a limit of zero, atoms or molecules, or the earth, or our planetary system, or the galaxy, etc., emerge like islands in the universe. And our universe, like an island in the totality of universes. Thus, the mathematics of infinitesimal calculus, which is different from that of established mathematics, is based. These are complemented by discrete mathematics.

In the same reality, we will formulate physics first with indivisible particles and then supplement it with the physics of the infinitely divisible.

## 2. METHODOLOGY

Just as the ancient Greek philosophers set principles for the construction of their theory, so here too a principle is set, that is, a prerequisite and conditions follow for the construction of the new physics. A prerequisite of the physics that is being developed is the existence of the measure standard (met) and that the diffraction theory is correct, i.e. the wavelengths of the radiations were measured correctly.

Induction is used as the tool for the development of theory and remuneration-conditions are made, on which it is applied.

As any great theory ought, it must have, as we said, a principle or principles. Discrete mathematics has a philosophical principle, the indivisibility of matter, the discrete. This is reflected in their structure and they are based on the variable, e.g.  $x$ , which has a difference of  $\Delta x = x_2 - x_1$ . Many times  $\Delta x = x$ , because  $x$  is finite.

Subsequently, inductive and deductive reasoning is developed, in order to build the new math! As it is because mathematics is strict and concise logic, the laws of logic are applied to the whole extent, with a serious effort to avoid errors.

I would say philosophical is the principle of the pre-existence of zero, but mathematical and physical is the principle of the infinite division of matter.

Democritus set as a principle the minimum indivisibility of matter, the indivisible and Anaxagoras set as a principle the infinitely divisible of matter. With Democritus the discrete mathematics that we have already published is combined, and with Anaxagoras the infinitesimal calculus, with the limit to zero, in mathematics fits.

We use definitions that are reasonable, accepted as reasonable, and the definition emerges as a prerequisite, as a principle.

Induction, philosophical induction and mathematical induction, is widely used and is, together with abduction, the backbone of this work.

Finally, the description of creation is used, which again uses induction and abduction as tools.

Here we will set the principle of the infinitely divisible of Anaxagoras and perhaps now we will understand what we find in proton collisions (?) in accelerators (CERN etc).

We maintain the principle of Balmer's empirical formula in physics, which we set from previous papers. Balmer found the empirical formula by which he explains the spectrum of the hydrogen atom. Here, too, in order to build the atomic theory, we start from the acceptance of the empirical formula by which we are led and set from the finding from this formula, as the fundamental level of the hydrogen atom, the wave  $\lambda_0 = 91.1$  nm. It carries out its fundamental orbit, the atom or the grain of hydrogen, and from there it is excited.

Because this work is an extension of the worldview<sup>1</sup> THE IDION, here too there is an acceptance of the principles that were set there, that is, that there is zero which is nothing and something at the same time (energy-force) and matter. Something similar to the void and the complete that Democritus set as principles.

The equality of the masses and charges of the hydrogen atom was also considered as a principle.

#### PRELIMINARY

+ = symbol of the addition  $a+b$ , - = of the subtraction  $a-b$ ,  $\times$  = of the multiplication  $a \times b$ , as well as  $a \cdot a$  or  $aa$  the / = of the division  $1/2$ .  $x$  is also used as an unknown number.

1, 2, 3, 4, ..., the natural numbers. ....-3, -2, -1, 0, 1, 2, 3, .....the real numbers,  $1.5 = 3/2$ , the rational numbers, 1.5432..... endless numbers after the dot, the irrational numbers.

$$axa = a^2, axaxa \dots n \text{ times} = a^n, a^{-n} = 1/a^n.$$

$$a^0 = a^{(0-0)} = a^0 x a^{-0} = a^0/a^0 = 1.$$

$$\sqrt{4} = 4^{1/2} = 4^{0.5} = 2, n = \sqrt{nx} \sqrt{n}, \sqrt[n]{n} = n^{1/n}.$$

$$e = \lim_{x \rightarrow \infty} \left(1 + \frac{1}{x}\right)^x = 2.718 \dots \text{irrational number, } \lim = \text{limit, } = \text{infinity, } = \text{tends } \rightarrow$$

$$\lim_{x \rightarrow \infty} x = \infty, \lim_{x \rightarrow 0} x = 0, \lim_{x \rightarrow \infty} \left(\frac{1}{x}\right) = 0$$

$$\ln x = \frac{1}{e^x} = \log_e x, \text{ by definition, } \log_{10} 15 = \frac{1}{10^{15}}$$

$$\Delta x = x_2 - x_1 = \pi \cdot \chi, \Delta x = 55 - 44 = 9$$

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<sup>1</sup> THE TOTAL THEORY, international journal of Mathematics and Physical Sciences Research volume 8 issue 2 April 2020-September 2020

DERIVATIVES AND INTEGRALS OF DISCRETE MATHEMATICS THE GENERAL DIFFERENCE

We have the general function  $f(x)=y= ax_n+bx_{n-1}+cx_{n-2}+...+px+q$ .

The difference  $\Delta f(x)=f(x_2)-f(x_1)$  will be,

$$\Delta f(x)= a(\Delta x)_n+b(\Delta x)_{n-1}+...+p\Delta x$$

And the derivative,  $\Delta f(x)/\Delta x = a(\Delta x)_{n-1}+b(\Delta x)_{n-2}+...+p$

$$\Delta f(x) = \{ \Delta f(x) / \Delta x \} \Delta x$$

This difference is distinct because  $\Delta x$  is distinct. In any cases

where  $\Delta x=x$ , e.g.  $\Delta r=r$ , we substitute  $\Delta x=x$  in the second part of the equation.

THE LINEAR EQUATION

In mathematics we have the linear equation or function  $f(x)=y= A+bx$ . A and b are stable. Their difference will be,

$$\Delta f(x)=f(x_2)-f(x_1)=y_2-y_1= \Delta A+ \Delta(bx)= b \Delta x.$$

We define as the derivative of the function, according to the first way, the

$$\Delta f(x)/ \Delta x = \Delta y/ \Delta x = b=b(x^{1-1}).$$

EQUATION OF DEGREE n

If we have  $f(x)=A+bx^n$ , then,

$$\Delta f(x)/\Delta x= \Delta y/\Delta x = b(\Delta x)^{n-1}$$

$$\Delta f(x)= \Delta y= \Delta A+ \{ \Delta f(x)/\Delta x \} \Delta x.$$

THE CONCEPT OF PRODUCER BUT NOW

If we have  $f(x)=A+bx^n$ ,  $\Delta f(x)=b(\Delta x)^n$  and  $\Delta x' = x_n-x_{n-1}=x_{n-1}(x_1-1)$ , then,

$$\Delta f(x)/\Delta x' = \Delta f(x)/ x_{n-1}(x_1-1)= b(\Delta x)^n/x_{n-1}(x_1-1),$$

$$\Delta f(x)/ \Delta x^{n-1} =b\Delta x' \Delta x/x_{n-1}(x_1-1)= b\Delta x.$$

$$\Delta f(x)/ \Delta x_{n-1} = b\Delta x= b(\Delta x)_n/(\Delta x)_{n-1}.$$

$$\Delta f(x)/ \Delta x = b (\Delta x)^{n-1}$$

INTEGRALS AND DERIVATIVES

Again, we consider the linear form of the function  $f(x)=A+bx$ .

the derivative we calculated, the integral is,

$$F(x)=\int(A + bx)\Delta x =Ax+bx^{1+1}=xf(x)$$

There is no need for a constant C that the established infinitesimal calculus finds.

The difference of the integral will be,  $\Delta F(x)=A\Delta x+b(\Delta x)^2$ . That is,

$$\Delta F(x)/\Delta x = A+ b\Delta x$$

$$f(x)= \Delta F(x)/\Delta x$$

The integral of  $f(x)=bx^n$  will be  $F(x)= \int(bxn)\Delta x=bx^{n+1}$ .

NATURE WITH THE PRINCIPLE OF THE INFINITE DIVISION OF MATTER AND THE NEW APPLIED MATHEMATICS

We adopt the limit, where x tends to zero, and when  $y=kx$ ,  $dy=kdx$ , i.e. we avoid  $dy=k(x+dx)-kx$ , which is used by the established infinitesimal calculus, because it gives incorrect results. When  $y=kx dx = \lim_{x \rightarrow 0} x = 0^2$ , we calculate  $dy=kx dx$ .

#### A LITTLE ABOUT THE EXISTENCE OF THE INTANGIBLE

By applying the methodology, we set the first principle. The presupposition of the existence of nothingness, that is, that it has always existed outside of time and space, had no dimensions, it was immaterial. It was something non-personal and therefore had no gender, it was a higher ultimate reality.

As the physicist Lundvich Buhner<sup>2</sup>, a materialist friend of Marx, mentions, force is immaterial and exists next to matter. Immaterial force, when it acts on matter, creates kinetic energy. The force is  $F=mdx/dt^2$  (we use the symbols of differential calculus) and  $\int Fdx = \int m \frac{dx}{dt^2} dx = mx \frac{dx}{dt^2} = mxa = m \frac{x^2}{t^2} = mv^2$  (see integrals below), the kinetic energy. This is quantity, it is invested in the matter of mass  $m$ , and it is something immaterial, it has no dimensions of space.

From the interaction of two masses that have gravity, but also from the interaction of two electric charges, force and potential energy arise. For quasi-stationary bodies, the force is  $F=k/r^2$  and the potential energy  $F=k/r$ , and for the bodies rotating between them,  $F=k'/r^3$  and the potential energy  $F=k'/r^2$ . Forces and potential energies, and in general all energies, are intangible quantities.

So is thermal and magnetic energy.

The energies, infinite, nestle in the tank of impersonal zero and supply the particles of matter, when they must, with the appropriate energy.

The forces that cause potential energy, at some point when time began, competed with the forces that cause kinetic energy, and the impersonal zero, part of it, turns into zero personnel. And as a staff, it's male. And at the same time, the female personal zero is self-generated.

People invent ideas-concepts, make thoughts, strain plans, make theories and the highest theory.

Grafted with the thoughts of the male, the female gives birth to zero! He makes a creation.

In his mind, he conceives a distribution of infinite points in infinite space. The points are dimensionless, they do not extend into space each, the distribution of points extends to the imaginary space of the female zero. The impersonal zero gives kinetic and dynamic energy to the points, from its reservoir (of the impersonal zero). The points began to oscillate, in volume oscillation and with a phase difference. From the point without dimensions and with zero volume, a wave begins, ether develops, ether matter. A volume of ether alternates with zero and negative and again zero and then positive volume of ether. And with the phase difference of the pulsating points, the complementary continuous, elastic, with a small viscosity (less than air), ether is created.

The female zero identifies denser points that also oscillate from infinite space to the center. In the center, a huge bubble of the dilute initial ether, the transcendental non-substance, is created, with a denser ether, the enosia, around it. The bubble has a crust, the densest ether, the Idion as the enosia, it is an alloy of transcendental non-essence and itself.

The pressure of the infinite ether (compound) in the bubble is infinite, it has the properties of the solid (elasticity infinite), the properties of the liquid (viscosity small) and the properties of the gas (denser near the bubble, thinner outwards and then constant density). The propagation of a disturbance in the ether is transmitted instantaneously to its entire space, the infinite, and especially the empirically infinite.

Due to the high pressures, part of the dense crust of the bubble is "evaporated", creating infinitely small grains of dense ether, which move with the energy of faceless zero, like an ideal gas. The grains collide with each other, many fall vertically and with momentum into the bark, making a small dent that closes behind it. And it is a very small bubble, electrically charged and the ancestor of atomic particles (two bubbles make up the hydrogen atom) in a universe where they exist indivisively. When there is an infinitely divisible one, the bubbles tend to their limit to zero. Due to buoyancy they will move away, they will concentrate in space, they will form gases, the primordial of the generations of the stars.

The principle of infinitely divided matter also applies to the limit to zero. And here applied mathematics is of differential calculus, but the one we will develop. That is, now the bubbles will exist in smaller and smaller than the larger ones.

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<sup>2</sup> POWER AND MATTER

INTRODUCTION TO THE MATHEMATICS OF INFINITELY DIVISIBLE

From the theory of probabilities and combinations, we know that,  $0!=1$ . Then

$$\frac{0!}{0!} = 1 = \frac{5!}{5!} = \frac{5}{5} = \frac{4}{4} = \frac{3}{3} = \frac{2}{2} = \frac{1}{1} = \frac{0!}{0!} = \frac{0}{0} = \frac{\infty!}{\infty!} = \frac{\infty}{\infty} = 1$$

So,  $0/0$ =undefined, but sometimes depending on the problem,  $0/0=1$ , and zero is constant,  $0=c$ . Also,  $\frac{\infty}{\infty} = \frac{c}{c} = 1$ . That is, infinity is constant.

The infinitive, according to the ancient Greek language, is a compound word (it consists of the privative alpha and with experience or even with the end). Thus, the concept of infinity in ancient Greece is that which does not fall within experience, but also that which has no end.

Thus, the atoms of our universe are infinite, empirically infinite, and the space of the ether infinite and without experiential end.

THE APPLIED DIFFERENTIAL CALCULUS, OVER AN INFINITE PART

When universes have the infinitely divided, there is a limit that is constantly tending towards zero.

$$dx = \lim_{x \rightarrow 0} x = 0$$

$dx$  is the infinitesimal change, if  $x=t$ , then it is the instantaneous time. The definitions that are the first equations are the next ones, and judge whether they are correct.

$$\begin{aligned} y=kx, & & dy=kdx & & dy/dx=k \\ y=kx^2 & & dy=k(dx)^2 & & dy/(dx)^2=k, \\ dy/dx=kdx=k(dx/dy)dy & \text{and} & (dy)^2/(dx)^2=kdy, & \text{too,} \\ y=kx^2 & & dy=kxdx & & dy/dx=kx \end{aligned}$$

The distance  $s$ ,  $s=s_0+vt$   $ds=vdt$   $ds/dt=v$ =velocity

$$s=s_0+at^2 \quad ds=a(dt)^2 \quad ds/(dt)^2=a$$

and,  $v = \frac{ds}{dt} = v_0 + \frac{ds}{dt^2} dt = v_0 + v_c$  and  $v_c$  are specific, the limit is specific.

The velocity is  $v$ , when the body has an acceleration  $a$ .

$$v=v_0+at \quad dv=adt \quad dv/dt=a$$

The differential calculus that already exists, gives a different definition of the limit, gives,

$$\begin{aligned} y=x \\ dy = \lim_{x \rightarrow 0} \{(x + dx) - x\} = \lim_{x \rightarrow 0} dx = \lim_{dx \rightarrow 0} dx = 0 \end{aligned}$$

So, in the above equations,

$$\begin{aligned} \frac{dy}{dx} &= \lim_{x \rightarrow 0} \frac{\{k(x+dx)-kx\}}{dx} = k, \text{ just as we found.} \\ \frac{dy}{dx} &= \lim_{x \rightarrow 0} \frac{\{(kx+kdx)^2-(kx)^2\}}{dx} = \frac{2kxdx+kdx^2}{dx} = 2kx + kdx = 2kx \end{aligned}$$

Here we see that the established differential calculus gives a solution, so that the limit  $dy/dx$  is proportional to the variable of twice  $x$ , so it is false.

Precisely because the established differential calculus uses this limit, it gives,

$$s = v_0t + \frac{1}{2}at^2$$

That is, it puts the  $1/2$  that we do not have in the equation and which we give by definition and is reasonable. Judge our definition if it is plausible and this above equation if it is correct, because the equation of the established differential calculus, when  $a=g$  the acceleration of gravity, gives  $g=9.81 \text{ m/sec}^2$ , instead of the correct  $g=4.9$ .

It will be,

$$\frac{ds}{dt} = \lim_{x \rightarrow 0} \frac{\{v_0(t+dt) + \frac{1}{2}a(t+dt)^2 - v_0t - \frac{1}{2}at^2\}}{dt} = \frac{v_0dt + atdt + \frac{1}{2}adt^2}{dt} = v_0 + at + \frac{1}{2}adt = v_0 + at$$

That is, the velocity of the body will be, , which velocity is proportional to the time variable t, it is not a limit with instantaneous time here, but continuous. The limit tends to a specific value rather than a continuous variable. Therefore, we must reject the limit of the established differential calculus, which is continuous at the end of the equation, and we have given the plausible definition of the equation, and which does not end in 1/2.  $v = v_0 + at$

### INVERSE FUNCTIONS

Established mathematics considers two functions, f(x) and g(x), to be inverse, when f(g(x))=g(f(x))=x. Then, if f(x)= e<sup>x</sup>, g(x)=lnx, it will be, e<sup>lnx</sup> = ln(ex)=x and this is wrong.

A function f(x) is the inverse of a function g(x), when g(x)=f<sup>-1</sup>(x), f(x)=g<sup>-1</sup>(x).

The function f(x)=log<sub>a</sub>x, is the inverse of the function g(x)=a<sup>x</sup>, by default, i.e. we defined this here. And so, f(x)=y=lnx, is inverse of g(x)=y<sup>'</sup>=e<sup>x</sup>, lnx=1/e<sup>x</sup>, lne=1/e<sup>e</sup>.

That is, it is,

$$.e^{lnx} = e^{(\frac{1}{e^x})} = (e)^{-e^x}, x = 1, e^{ln1} = e^{(\frac{1}{e^1})} = 1.447, x = 2, e^{ln2} = e^{(\frac{1}{e^2})} = 1.145$$

$$lne^x = \frac{1}{e^x}, x = 1, lne^1 = 0.368$$

According to the limit we adopted for the new differential calculus, it will be dy=ln dx. But the,

$$dx = \lim_{x \rightarrow 0} x = 0$$

$$\frac{dy}{dx} = \frac{ln dx}{dx} = \frac{ln dx}{\frac{dx}{\frac{dy}{dy}}} \rightarrow \frac{dy}{dx} \frac{dx}{dy} = \frac{ln dx}{dy} = 1, dy = ln dx$$

And, y<sup>'</sup>=ex, so,

$$\frac{dy'}{dx} = \frac{e^{dx}}{dx} = \frac{1}{(dx)ln dx} = \frac{1}{(dx)(dy)}$$

Consequently

$$\frac{dy}{dx} = \frac{ln dx}{dx} = \frac{1}{(dx)(dy')}$$

The derivative, because dx is a boundary that tends towards zero, will be,

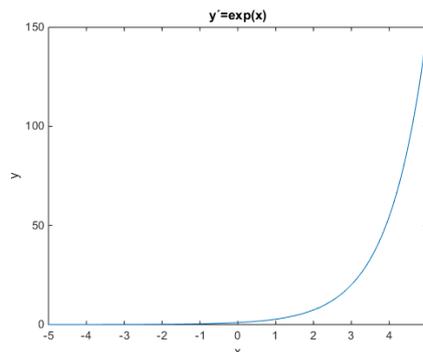
$$\frac{dy'}{dx} = \frac{e^{dx}}{dx} = \frac{\lim_{x \rightarrow 0} e^x}{\lim_{x \rightarrow 0} x} = \frac{1}{(\lim_{x \rightarrow 0} x)} = \infty$$

$$\frac{dy}{dx} = \frac{ln dx}{dx} = \frac{1}{(dx)e^{dx}} = \frac{1}{(\lim_{x \rightarrow 0} x)(\lim_{x \rightarrow 0} e^x)} = \frac{1}{((\lim_{x \rightarrow 0} x)(1))} = \infty$$

$$dy = dy' = e^{dx} = ln dx$$

$$\text{Then, } \frac{dy'}{dx} = \frac{e^{dx}}{dx} = \infty \frac{dy}{dx} = \frac{ln dx}{dx}$$

We give the graph of y<sup>'</sup>=ex=exp(x),



The derivative  $dy'/dx$ , is the declension of  $y'$ . And the slope of  $y'$  is infinite, (parallel to the y-axis of the figure, where  $dx = \lim_{x \rightarrow 0} x = 0$ ), when x becomes infinite. That is, the limit,

$$\frac{dy'}{dx} = \frac{e^{dx}}{dx} = \infty \text{ because it's a limit}$$

When it is not about the limit, then we handle discrete mathematics, and,

$$\frac{\Delta y'}{\Delta x} = \frac{e^{\Delta x}}{\Delta x} = \frac{e^M}{M}$$

M approaches zero from both positive and negative numbers to the limit. But, only when it tends to positive infinity  $x$ ,  $y' =$ , and the slope of  $y'$  is that predicted, infinite. In regions of  $x$  that are less than infinity, then  $c$  is also dependent on  $M$ . And  $x$  is less than infinity and greater than zero. That is why we told you that the  $dx$  is constantly tending to zero and we should adopt discrete mathematics as a complement. And in the problems,  $dx$  can also be  $\Delta x$ . And then let's go to the discrete mathematics, which complements these here.  $\infty \frac{\Delta y'}{\Delta x} = \frac{e^{\Delta x}}{\Delta x} = \frac{e^M}{M} = c$

#### THE ERRONEOUS DEFINITION OF THE FUNCTION $y=\ln x$

At this point, I would like to quote you the erroneous and arbitrary definition of the established differential calculus. Thus<sup>3</sup>, the definition of the function of the physical Neperian logarithm is,  $\ln x = \int_1^x \frac{1}{t} dt$

Definition, and according to our own mathematics,

$$\ln 1 = \int_1^1 \frac{1}{t} dt = t^{-1+1} - t^{-1+1} = 0$$

From this erroneous and arbitrary definition of the logarithm, there is also the derivative of  $\ln x$ .

But it should be,

$$\text{and } \ln x = \int_0^x \frac{1}{t} dt \ln 1 = \int_0^1 \frac{1}{t} dt = t^{-1+1} - t^{-0+1} = 1 - t$$

$$\ln 0 = \int_0^0 \frac{1}{t} dt = t^{-1+1} - t^{-1+1} = 0$$

But established science found  $\ln 1=0$  and not  $\ln 0=0$ .

In other words, the definition of established mathematics, is wrong anyway.  $\ln x = \int_1^x \frac{1}{t} dt$

We remind you that the function  $y=\ln x$  is the inverse of  $y'=e^x$ , i.e. according to the above,

$$e^x = \frac{1}{\ln x}$$

$$\ln 1 = \frac{1}{e} = 0.36, \quad \ln 0 = \frac{1}{e^0} = 1$$

And then, the definition  $\ln x = \int_1^x \frac{1}{t} dt$  given by established mathematics is wrong, as we formulate the inverse functions here.

#### THE PROPERTIES OF LOGARITHMS

We have,  $\ln a + \ln b = \frac{1}{e^a} + \frac{1}{e^b} = \frac{e^a + e^b}{e^a e^b} = \frac{e^a + e^b}{e^{a+b}} = \ln(a + b) \left( \frac{1}{\ln a} + \frac{1}{\ln b} \right) = \frac{\ln(a+b)(\ln a + \ln b)}{(\ln a)(\ln b)}$

$$\ln(a + b) = (\ln a)(\ln b)$$

$$\ln a + \ln b = \ln(a + b) \left( \frac{1}{\ln a} + \frac{1}{\ln b} \right)$$

$$\ln a - \ln b = \frac{1}{e^a} - \frac{1}{e^b} = \frac{e^b - e^a}{e^a e^b} = \frac{e^b - e^a}{e^{a+b}} = \ln(a + b) \left( \frac{1}{\ln b} - \frac{1}{\ln a} \right)$$

<sup>3</sup> INFINITESIMAL CALCULUS, Finney-Weir-Giordano, p. 441

$$\frac{(\ln a)}{(\ln b)} = \frac{e^b}{e^a} = e^{b-a} = \frac{1}{e^{a-b}} = \frac{1}{\ln(b-a)} = \ln(a-b)$$

$$\ln(a+b) = (\ln a)(\ln b)$$

$$\frac{(\ln a)}{(\ln b)} = e^{b-a} = e^{-(-b+a)} = \ln(-b+a)$$

$$\ln(ab) = \frac{1}{e^{ab}} = \frac{1^b}{(e^a)^b} = \left(\frac{1}{e^a}\right)^b = (\ln a)^b = (\ln b)^a$$

$$\ln\left(\frac{a}{b}\right) = \ln(ab^{-1}) = \frac{1}{e^{(a/b)}} = (\ln a)^{\frac{1}{b}} = \left\{\ln \frac{1}{b}\right\}^a$$

And finally, the force logarithm is,  $a = e \ln a^x = \ln e^{kx} = \left(\frac{1}{e^k}\right)^x = (\ln k)^x = (\ln a)^{xk}$ .

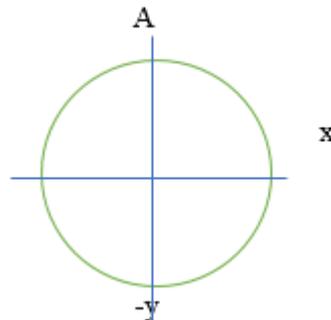
Now let's look at the derivative of  $F=k/R^c$ , which will concern us in the future,

$$\frac{dF}{dR} = \lim_{R \rightarrow 0} \frac{k}{R^c} = \infty$$

The slope  $dF/dR = \infty$ , is the perpendicular to the R-axis and parallel to the y-axis, which is tangent to the function, in small R, i.e.  $R \rightarrow 0$  when. In discrete mathematics,  $\Delta F/\Delta R = k/(\Delta R)^c$ .

#### THE TRIGONOMETRIC PRODUCERS

When  $R=x=R_{\max} \sin(\omega t + \phi)$ ,  $dR=R_{\max} \omega \cos(\omega t)$ . We



In the figure, the spring oscillates on the x-axis, but the maximum radius is reached on the y-axis, at point A. In the center, the maximum speed  $dR/dt=v$  is reached, but also the maximum acceleration,

$$\frac{dR}{dt} = v = \frac{R_{\max}}{dt} \sin(\omega dt) = \frac{2\pi R_{\max} T}{T 2\pi dt} \sin(\omega dt) = \frac{v T \omega \sin(\omega dt)}{2\pi \omega dt} = v \frac{\sin(\omega dt)}{\omega dt} = v_{\max}, \text{ in period } T, \text{ since } \lim_{\theta \rightarrow 0} \left(\frac{\sin \theta}{\theta}\right) = 1$$

Velocity is a limit, this is the velocity of circular rotation,  $\lim_{t \rightarrow 0} \frac{R}{t} = v = \frac{dR}{dt} = v_{\max} \lim_{t \rightarrow 0} \frac{\sin(\omega dt)}{\omega dt} = v_{\max}$ , but again, this happens at the periphery of circular motion.  $\frac{dR}{dt^2} = a = \frac{v}{dt} = \frac{2\pi R_{\max}}{T^2} = a_{\max}$

#### DERIVATIVES OF PRODUCT AND DIVISION FUNCTIONS

When  $z(x)=f(x)g(x)$ , then, 
$$\frac{dz(x)}{dx} = f(x) \frac{dg(x)}{dx} + g(x) \frac{df(x)}{dx} = \frac{df(x)}{dx} \frac{f(x)}{g(x)} + \frac{dg(x)}{dx} \frac{g(x)}{g(x)}$$

When  $z(x)=f(x)/g(x)$ , then, 
$$\frac{dz(x)}{dx} = \frac{df(x)}{dx} \frac{f(x)}{g(x)} - \frac{df(x)}{dx} \frac{f(x)}{g(x)} = \frac{df(x)}{dx} \frac{f(x)}{z(x)} = \frac{df(x)}{dx} \frac{z(x)}{g(x)}$$

$$\frac{dz(x)}{dx} = \frac{1}{g(x)} \frac{df(x)}{dx} = \frac{z(x)}{f(x)} \frac{df(x)}{dx}$$

$$\frac{\frac{dz(x)}{dx}}{\frac{dg(x)}{dx}} = \frac{z(x)}{g(x)}$$

And,  $z(x)=f(x)/g(x)$ , then,  $\frac{dz(x)}{dx} = f(x) \frac{d(1)}{g(x)} = f(x) \frac{d(x^0)}{g(x)} = f(x) \frac{x^{-1}}{g(x)} = \frac{f(x)}{xg(x)} = \frac{z(x)}{x}$

Constant derivative,  $y=c$ ,  $\frac{dy}{dx} = \frac{d(c.1)}{dx} = \frac{d(cx^0)}{dx} = c \frac{d(x^0)}{dx} = cx^{-1} = \frac{c}{x}$

INTEGRALS

We will have,

$y=k$   $y' = \int k dx = kx$

$y=kx$   $y' = \int kx dx = kx^2$

$y=kx^2$   $y' = \int kx^2 dx = kx^3$

$s=s_0+at^2$   $s' = \int (s_0 + at^2) dt = s_0t + at^3$

$v=v_0+at$   $v' = \int (v_0 + at) dt = v_0t + at^2$

$\frac{dy'}{dx} = \frac{e^{dx}}{dx}$   $y' = \int \frac{dy'}{dx} dx = dy' = \int \frac{e^{dx}}{dx} dx = e^{dx}$

$\frac{dy}{dx} = \frac{dx}{e^{dx}} = \frac{\ln dx}{dx}$   $y' = \int \frac{\ln dx}{dx} dx = \ln dx$

$y(x)=f(x)g(x)$   $y' = g(x) \int f(x) dx = f(x) \int g(x) dx$

$y(x)=f(x)/g(x)$   $y' = \frac{1}{g(x)} \int f(x) dx = f(x) \int \frac{1}{g(x)} dx$

$y(x)=c$   $y' = \int \frac{cx^0}{dx} dx = c \int \frac{x^0}{dx} dx = cx$

$y(x)=1/x$   $y' = \int \frac{x^{-1}}{dx} dx = x^0 = 1$

$y' = z = e^{dx}$ ,  $\int z dx = zx = xe^{dx}$ ,  $\int xz dx = \int x \frac{e^{dx}}{dx} dx = zx^2 = \int xe^{dx} dx$

,  $zx^2 = \int xe^{dx} dx = x \int e^{dx} = xe^x = x^2 e^{dx} e^x = xe^{dx}$

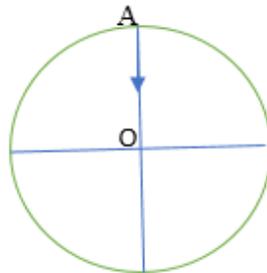
.But  $\int y' = \int e^{dx} dx y = e^x$

And for the logarithm,  $y=\ln x$ ,  $dy=\ln dx$ ,  $dy'/dx=dx/dy$ , so,

$y(x) = \int \frac{dy(x)}{dx} dx = \int (\ln dx) = \ln x$

FINDING SPEED AND ACCELERATION IN SMOOTH CIRCULAR MOTION

We consider a mobile with a constant velocity on the circumference  $v_p = 2\pi r/T$ , to bring circles with center O and with radius,



True,  $OA=R$

$v_{centripetal} = v_c = \frac{R}{\frac{T}{4}} = \frac{2}{\pi} \frac{2\pi R}{T} = \frac{2}{\pi} v$

$a_{centripetal} = a_c = v_{centripetal} \frac{v}{\frac{T}{4}} = \frac{\frac{2}{\pi} v}{\frac{T}{4}} = \frac{4}{\pi^2} \frac{2\pi \omega R}{T} = \frac{4}{\pi^2} \omega^2 R$

The centripetal acceleration that confers the force  $F=ma_c$  that the rotating body has, is equated by the force of attraction which is gravitational or electric, and the body then falls towards the center of the circle, with velocity  $v_{centripetal}$  and with acceleration  $a_{centripetal}$ . The force of attraction is  $F = \frac{4}{\pi^2} m\omega^2 r = \frac{\frac{4}{\pi^2} m\omega^2 r^2}{r^3} = \frac{c}{r^3}$

## INTRODUCTION TO THE THEORY OF THE WHOLE

A worldview of the Whole, such as mine, must unite the queen philosophy and Theology with physics, mathematics and all sciences. All sciences find their place in this worldview and erroneous views of sciences are rejected, such as physics, which has terrible weaknesses and contradictions, as well as inconsistency of its metric systems (SI, CGS).

The worldview is the theory of the Whole and does not exclude the theory about God, but extends to creation with physics. This worldview requires a new physics, which gives it uniqueness, since the previous worldviews were based on independently created physics and did not define it as this worldview does.

The worldview of Materialism is in some cases a genuine subset of THE IDION, (Gnosticism<sup>4</sup>, Materialism and THE IDION are the three worldviews that were formulated from the beginning of the conceptual beings, from the beginning of the civilization of men).

You should know that what describes a worldview or theories of physics is exactly how we humans describe things, matter from the microcosm to the megacosm and the possible immaterial existence. That is, how we perceive and understand things. If the worldview of THE IDION is correct, the worldview of Materialism is partially correct, since it is a partial subset of the IDION, but the worldview of Gnosticism is wrong<sup>5</sup>. This realization necessitates the lower ability of the creators of Gnosticism to describe matter and the immaterial. And here the question arises: Are we really the higher conceptual beings in the universe and if we really are, are we capable of describing the WHOLE? Here the worldview THE IDION is called in its evolution which is in constant evolution and becomes THE TOTAL THEORY, since it refers to the whole. We would call it belonging to Pantheism (everything is God). Then the whole and the immaterial and the matter are God. We could say that he also belongs to Pan-Venetheism (everything is within God), but in this case we would say that everything is within the dimensionless Zero, which would raise doubts.

Just as the ancient Greek philosophers, when creating their theory (Aristotle called them natural philosophies), set principles, so it is done here.

## PRINCIPLE OF WORLDVIEW

The only philosophical principle is the pre-existence and the unborn of some indeterminate and impersonal higher reality, part of which has been transformed into a male person and the self-birth of the female person. Logos<sup>6</sup>, that is , logic, is a mode of existence of things and rules of thought. It is expressed by the laws of nature and logic and presupposes the existence of reality.

Before the transition of the indeterminate to a personal God, this was an ultimate higher reality, which is something Brahmanism accepts for Brahman.

The personal Gods have qualities, characteristics, such as Time and Opposition. Time is divided into intervals that have a beginning and an end. And in nature, which is infinitely divided, the intervals of time tend to zero.

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<sup>4</sup> Our knowledge of Gnosticism is based on the document of Irenaeus, bishop of Lugdunu, 2nd century (Lyon, France) CONTROL AND OVERTHROW OF PSEUDONYMOUS KNOWLEDGE, the document of Hippolytus, bishop of Rome, 2nd century CONTROL AGAINST ALL HERESIES and some references to other works of Christian writers of the first three centuries. The natural view of this worldview is contained in the document of Clement Bishop of Rome 1st century HOMILIES

<sup>5</sup> According to the various formulations of Gnosticism, there is a supreme god, the BOTTOM, who with his wife SIGI, gave birth to two pairs of Centuries (centuries = eternal being, the god). They gave birth to 4 pairs, and they gave birth to 8, and it goes on in the various forms, with the formulation of a different number of centuries in the fullness where they dwell. As Maximus the Confessor mentions in COMMENTARY ON DIVINE NAMES, the ages are the angels. At the same time, Gnosticism, like Materialism, accepts the pre-existence of matter. It considers that originally there was a particle plasma in a chaotic form, on which God created the universe.

<sup>6</sup> In the civilization we are going through, for the first time Heraclitus spoke about the Word.

But every action, like the energies of the creation of the universes, takes place within a certain time, has a temporal starting point. Thus, Time exists before the creation of the universes. Then Time, as a property of the Logos that the person has, is motion<sup>7</sup>.

But Time, which has intervals with a beginning and an end, presupposes the existence of Antithesis. And the Antithesis for the same reasons is a quality, a characteristic of the Logos and of the Person of God.

The ecstatic Zero is infinite, it is the Infinite, it is the infinite extraneous space, which has the continuous ether as its idiom. This ether is the extensible Zero, it is infinite. Tensile Zero is empty, because it is not matter if it is considered that ether is not matter (Being and non-Being, Democritus will say)

The dimensionless absolute Zero is the void that has no dimensions (the limit tended by the continuous intersection of a volume, the intersection to infinity). This is where ideas and energies nest with the forces, which are intangible.

#### THE GENERAL SHAPE OF BECOMING

Logic<sup>8</sup>, ethics and concepts in general (philosophically the ideas) have no mass and weight, they are not limited to a place only and to a period of time. If we accept that the extension of divine logic is the laws of the universes, then time is continuous and absolute<sup>9</sup>, the space of the universes is empirically infinite and the space of the Whole, of the ether, endless, without end and then the immaterial is (has) of ideas<sup>10</sup> and concepts and IS NOT BEING that.

Consider a box that we cut infinitely, endless times, each time in two. It tends to a limit, ZERO, nothing, absolute, the void that has no dimensions. This is NOT TRUE, since it is intangible. Immaterial concepts and ideas "nestle" in dimensionless zero.

Democritus considered the complete and the void as principles. On these two principles he built his worldview. He did DEN (NOT) call the atomic<sup>11</sup> lines and the vortex of the atoms of the lines are the atoms of matter that are of various kinds. He called the NOT BEING ZERO. He will formulate (the zero) from nothing becomes matter and does not deteriorate into nothing). It is the exuberant theory of the universe and the genesis from Nothing, vacuum. This theory greatly troubled the writer.

But the numbers<sup>12</sup> that are ideas are infinite, infinite. And the space in which the finite universes are located is infinite. Then the INFINITE is immaterial and as such, it is space of ether and the ether is not material, it is extensible ZERO. In the queen Greek language, the language of God, under + archo = I exist, I am a subset, part of the Whole. The infinite experientially universes (A + experience = experience Infinity, (Great Etymological Dictionary of the 11th century) and A+ end, infinite, endless), exist because they have limits, although outside our experience. There is that which is born and dies, that which has mass and weight, finite extent and limited time.

The infinity that was the beginning for the philosopher Anaximander in his natural philosophy, but also in the concepts and ideas (and the numbers of Pythagoras), exists because it was once defined as a quality of the person, just like ideas. "Next to" Infinity, there is the dimensionless and faceless Zero.

LOGOS, LOGIC, that is, existed within the Whole, which invented ideas and numbers (which are ideas). This (the Whole) is something that presupposes the Logic, which precedes it, to govern the ideas. In other words, we now have a movement and a plot of ideas, an evolution of Nothing. And since we have BEFORE, we also have now, that is, TIME (which is also a movement of ideas). And now there is the road, why not the TAO which means road to Taoism.

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<sup>7</sup> Unit of time is uniformly repetitive motion of material body and time is motion and is absolute within matter

<sup>8</sup> From the lessons of my philologist Ioanna Tsampakalou in high school. "LOGOS is an ancient word and its first meaning is Logic, but it is also the cause, the occasion, the analogy and the spoken Word". This is what I remembered and was enchanted in my youth by the Gospel of John (in the beginning was the Logos and the Logos was to God and God was the Logos). I remembered it when I returned from Materialism to the divine life.

<sup>9</sup> The relativity of time came from the theory of relativity and its two erroneous postulates (reference systems are equivalent for describing motions and phenomena with the same laws, and the speed of light is constant and the same for any reference system)

<sup>10</sup> The theory of ideas was formulated by Socrates-Plato. As Plutarch Chaeroneus mentions in ON THE PHILOSOPHERS OF NATURAL DOGMAS that are pleasing, ideas are found in the thought and imagination of God.

<sup>11</sup> DEMOKRITOS Cactus Publications

<sup>12</sup> Pythagoras, in order to build his theory, set numbers as a principle.

LOGOS (the principle, the premise was logos, and logos refers to god and god was logos<sup>13</sup>), emerges as the existence that thrives in the imagination of the Whole. It projects something like the Absolute characteristic of the Whole. Logos has Time<sup>14</sup> and Antithesis next to it and are characteristics of the Whole, as well as the Infinite<sup>15</sup> and the dimensionless Zero, which are again properties of the Whole, exist and essentially begins a chronological state of the coming creation, from the invention of numbers and ideas from Zero, mediated by Logos. The invention by the Whole of ideas is its evolution into a male person and the female after being self-born, from a distant higher reality that it was before. And the person is identified with the Logos, the Antithesis and the Time.

### THE CREATION

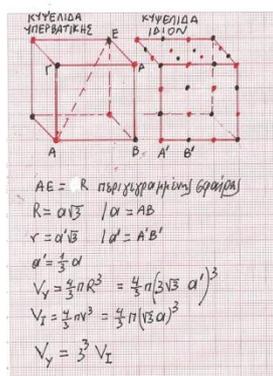
The dimensionless Zero as a person is the space of the imagination of the Whole, it determines the Infinite SPACE, the distribution of points. He oscillates in a simple harmonic VOLUME the points, in his imagination. The points are dimensionless, therefore Zero. The oscillation is  $V = V_{\max} \cos(kx - \omega t + \pi/2)$  and when  $kx - \omega t + \pi/2 = 0, \pi, 2\pi, \dots$  then  $V = 1$  (i.e. the dimensionless point that is zero (0) at  $2\pi$  for the sine and 1 at  $\pi/2$ , is this the starting point of the imagination and the oscillation of the points.

The points alternate into positive and negative in a grid of cubes. They have a phase difference of  $\pi/2$  and fill the space alternately with positive and negative ether.

But now God's imagination has been separated from reality. Her imagination is realistic.

The self-birth of the personal God and her fertilization by the male person brought about the invention of creation, which begins from the dimensionless points. The invention is the models (the constants of physics), that is, the factors, but also the laws of nature, which are now imminent. Patterns are the factors in the genesis of reality, with the laws that were invented and govern the bubbles of ether and the particles of matter. These factors are the etheric mass, angular momentum or momentum, magnetic moment and electric field, etc., of the particles. The invention of the laws of the coming nature pre-existed in the unborn Logos.

First, everything happens in God's imagination (although its multiple possibilities help it to know the future), and then it happens in reality. In her imagination she identifies successive and cubic cells of the points of the ether. Some hives have denser spots. An alloy of denser and thinner ether is formed (alveoli of denser and thinner ether), of SELF and of TRANSCENDENTAL NON-ESSENCE (they are the two types of ethers and their alloy is ENOSIA, of medium density ether).



Denser and thinner areas of ether alveoli

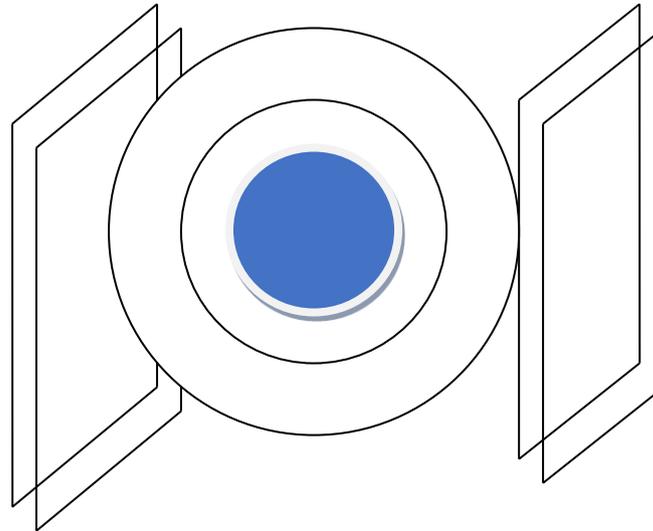
ENOSIA comes from infinity and forms a central bubble containing the thinnest Transcendental Non-Essence. As the law of gravity applies to matter, the same force applies to the non-Essence of the ether. The pressure in the megacosmic bubble

<sup>13</sup> Gospel of John

<sup>14</sup> Time is motion, uniformly repeated motion of mass, it is a unit of Time. Before the creation of the universes, Time was the movement (energies) of Logos and with the determination of the Infinite and the dimensionless Nothing, it was the movement (energies) of them. Aristotle in PHYSICS and St. Augustine in CONFESSIONS, will refer to Time as movement

<sup>15</sup> Infinity is infinite space. Within creation, the universes, space is determined by the distribution of masses, and infinite space is absolute.

is infinite and grains of IDION, i.e. the densest ether, are "vented" inside the bubble. These are infinitesimal in size ( $dV$  volume) and have an empirically infinite velocity. They collide with each other and with the walls of the bubble and balance the infinite pressure ( $R^{\infty_A} + P^{\infty_E} = P^{\infty_A}$ , and  $R^{\infty_A}$  = the infinite infinity when the empirical (the pressures) is subtracted from the initial infinite infinity,  $P^{\infty_E}$  = the empirical infinite but essentially finite and outside our experience and  $R^{\infty_A}$  = the infinite infinity, the infinitely infinite pressure). A nucleus of Idiom spherical is formed in the middle of the central bubble and a crust with 32 subcrusts around the bubble.



The central bubble (blue) unleashes spherical waves of condensation and dilution of the ether at an infinite speed, reaching two of the six planar universes.

Within the bubble, the empirically infinite grains of infinitesimal volume collide with each other and with the crust at an empirically infinite speed. When the impact is vertical and maximum with the crust and by many grains, because the viscosity of the ether (Enosia) is relatively low, a depression is formed and closes behind it forming a small bubble. This bubble, due to the increased pressure near the central megacosmic bubble, moves away from it.

#### SMALL BUBBLES FORM ATOMS

And within the small bubbles infinite grains have formed that compensate with the impacts on the cortex, the external upper pressure. The granules when they collide with the crust, form a dent in the surrounding Union that spreads, and the dent is a condensation disorder of the ether, it is the dynamic line of the electric field of the bubble. The atoms, which in our physical theory are the same in hydrogen, but with an oscillation of rotation, each, consists of two bubbles. These bubbles are the indivisible minimum of matter set by Democritus. But in nature, which works, according to Anaxagoras, they are divided into a structure of smaller bubbles and those into smaller ones, in an infinite division.

In our theory, these are two identical bubbles in each atom with rotation around the center and with a phase difference  $\pi$ , for two "bodies" of ether, with velocity  $c$ .

The two "bodies"-bubbles orbit at a speed  $v=c$ . They emit the electric field of the ether with symbol  $E$  and  $m$  is the mass of the ether, and due to the difference in phase  $\pi$ , they attract the "bodies". The electric field is disturbances of the ether.

#### MATERIALISM AND GOD'S ADMINISTRATION OF THE UNIVERSE

In the central bubble, in its center, there is a very small nucleus. As we said and you will see below, energy is immaterial and thermal energy and comes from the reservoirs of impersonal Zero. The person God invented the laws that govern the universes. In Aristotle's Greek language and symbolisms, he formulated the immaterial laws. As you know, a text becomes written on the computer, the core of which generates it, with frequencies and corresponding to each letter or symbol. We give the formula that God translates the immaterial laws into surprisingly short time that tends to zero, into thermal fluctuations of the core. The propagation of frequency in the crust of the central bubble and from there to the universes almost instantaneously, through the ether, whose pressure is infinite. And, therefore the speed of propagation is infinite.

Atoms, particles, suns, planets, galaxies, etc. They are informed in a very short time with the laws they will obey. The determinism of materialism. But there is also the self-determination of people in becoming, and we point out that there is also the action of the ether, which no one has taken into account. A war stimulates the ether, it shifts to another place, an earthquake, or a volcanic eruption, can become from the ether of the earth's crust.

THE GENERAL FORMULA OF FORCE IN THE PHYSICS OF THE THEORY OF THE WHOLE

This is,  $F = Cr^c$ . c is a real number, such as, -3, -2, -1, 1, 2. And C another constant. The force, acceleration and velocity that are vectors, are positive when directed towards the center of attraction.

It will be  $F = \frac{C}{r^3} = G' \frac{M_{earth}m}{r^3} = \frac{4}{\pi^2} \frac{mv^2}{r}$  the force of attraction of the sun and the planets from the earth, which on the attracted celestial bodies, a force of a spring acts,

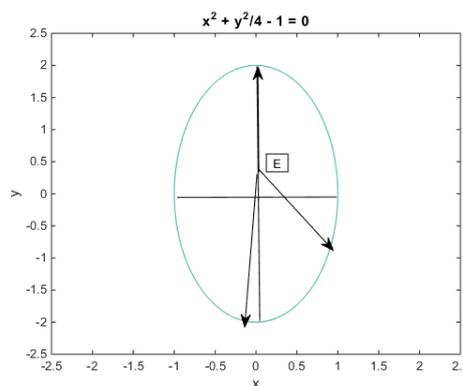
$$F = Cr_m^1 = Cr_{max} \cos(\omega t + \varphi)$$

Along the radius of circular orbit r around the earth, and a similar force, perpendicular to the radius r on the planet (it raises and lowers it to the horizon) and finally, a similar force, tangent to the circular orbit, in the same direction as the velocity (creates the retrograde motion of the planets, observed from the earth).

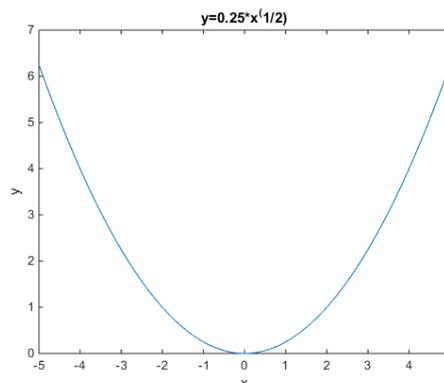
It will be again,

$$\text{and } F = \frac{C}{r^2} = G' \frac{M_{earth}m}{r^2} = \frac{4}{\pi^2} \frac{mv^2}{r}, r = \left( \frac{\pi^2}{4} G' M_{earth} \right) \frac{1}{v^2} = \frac{k}{v^2} = \frac{r_{min}}{(1-(2EO)\cos(\omega t))}$$

This is the radius on elliptical motion, with radius r and E = h one focus of ellipse where the minimum radius ends and O is the center of intersection of small and large axes.



Ellipse is the periodic motion of a comet that comes close to the earth, but does not collide with it (e.g., Haley's Comet). From the earth, it experiences negative force of attraction, i.e. repulsion, such as, with the result that when it approaches the earth, then the motion is parabolic.  $F = \frac{-C}{r^2} = (-G') \frac{M_{earth}m_{comet}}{r^2}$



This same formula of force also applies to attracted almost stationary masses.  $F = \frac{C}{r^2} = G' \frac{M_{earth}m}{r^2}$

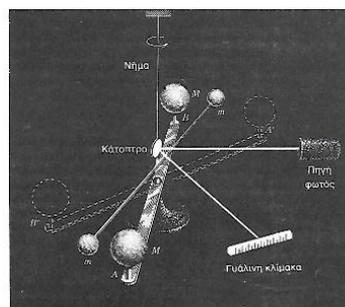
When  $F = \frac{C}{r} = G' \frac{M_{earth}m}{r} = \frac{4}{\pi^2} \frac{mv^2}{r} = \frac{4}{\pi^2} m\omega^2 r$ , then the velocity is constant and on a circular orbit, (on the circumference of a circle). This formula prevails over the motions of galaxies, which have the same angular velocity around the earth.

### THE GEOCENTRIC SYSTEM OF THE UNIVERSE

As you know, today the heliocentric system of the planets prevails. It was described mathematically by Newton, who discovered differential calculus, as it prevailed. As you can see, this is not the case, and I will give you some facts, to prove the untrue!

As you know, Newton hypothesized that there is a force of gravity that propagates almost instantaneously and this is the inverse of the square of the radius, the two attracting bodies. This is, F=force, k= one constant, G= the constant of gravity,  $F = \frac{k}{r^2} = \frac{Gm_1m_2}{r^2}$ , m1,m2 = the two attracted masses of celestial bodies.

So, according to Newton and Cavendish who proved the law and most physicists, there is a force of gravity!



Σχ. 16-4 Ο Σειρός του Cavendish, που χρησιμοποιείται για την πειραματική επιβεβαίωση του νόμου της παγκόσμιας έλξης του Newton. Οι μάζες m, m αναστέλλονται από ένα νήμα. Οι μάζες M, M μπορούν να περιστρέφονται πάνω σ' ένα σταθερό στήριγμα. Ένα είδωλο του νήματος της λήμας ανακλάται στο κατόπτρο που είναι συνδεδεμένο στις m, m πάνω στην κλίμακα και έτσι απομακρύνεται στροφή των m, m μπορεί να μετρηθεί.

This is Cavendish's apparatus, which proved the law that Newton assumed. As you can see, the two bullets that were attracted, were approximately motionless. The law that turned out to be such masses concerns!

I see in a NASA post on f/b, said a great physicist (Kaku) of the USA, since there is a law of gravity, why don't planets and stars fall to earth? This is the question that the heliocentric system carries!

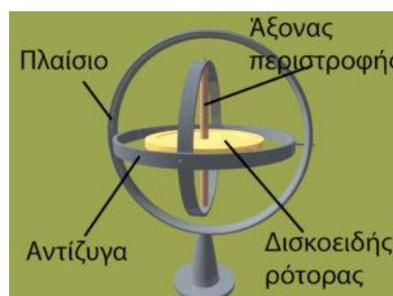
The following that I will write to you, I wrote in a comment on this post and in half an hour NASA took down the whole post!

The centrifugal force, for rotating bodies circularly and at a constant speed, as in the geocentric system, is,  $F = m \frac{4}{\pi^2} \frac{v^2}{r} = \frac{4}{\pi^2} \frac{m^2 v^2 r^2}{mr^3} = \frac{k}{r^3} = \frac{G' M_{earth} m}{r^3}$

Thus, with the solid mathematics I used, I proved that for a body rotating around another circularly, the force of gravity is inverse to the cube of the radius of rotation of the two masses. Here's NASA why it took down the post, the math is unshakable.

### SOLID EVIDENCE THAT THE EARTH IS ALMOST STATIONARY

The gyroscope is an instrument of physics and it is this one.



You see the axis of rotation. It remains in the same orientation in space, no matter how much we rotate the whole device. The shaft does not rotate when the device rotates and always has the same orientation as before the rotation. I have one.

So, if the earth were to rotate around itself in 24 hours, then the device would rotate similarly, but the axis would remain in the same orientation in space. All the gyroscopes in the world remain motionless 24 hours a day. Which means that the earth is almost still!

Come on, a spaceship is leaving to go to the moon. The journey takes about 8 hours! The moon in a geocentric system orbits the earth in 25 hours. That is, in 8 hours it will make an angle of  $8/25 = 118$  degrees! In a heliocentric system, the moon will make one revolution around the earth in 27 days. 8 hours will make an angle of  $8/(27 \times 24) = 9$  degrees!

Now suppose that when the spacecraft starts from Canaveral, USA, then the moon is perpendicular above the meridian passing through there. So, answer yourself, will the spacecraft tilt 9 or 118 degrees to meet the moon?

#### THE MOVEMENTS OF THE PLANETS AND THE SUN

Venus and Mercury are satellites of the sun, and the sun revolves around the earth, like all planets and stars. The sun and the planets are like masses bound by a spring and fluctuate the radius of distance from the earth, such as,  $r = (r_0) \cos(\omega t + \phi)$ . Perpendicular to this radius, the planet is as if it has two springs with the masses of the universe it attracts. followed by a move up and down. The 24-hour rotation frequencies are not the same as these. And there are also two springs, along the speed of rotation, which, pulsating, fluctuate the speed and create the reciprocating motion, which Ptolemy observed! Of course, things are clear, in this case. There are rotations of galaxies and stars, faster than light!

There is no sufficient reason for the speed of light to be the highest!

#### LIFE IN THE UNIVERSE

You may be familiar with the anthropic principle. According to it, the universe was born for man, the crown of creation!

Since the universe is geocentric, then there are no conditions for creation on other planets, life like humans. Other inferior forms of life will exist!

It is possible that molecules of life there came to earth with meteors!

But, if there was a previous advanced civilization and humans colonized the universe, the golden race of humans mentioned by ancient historians, it is from the earth that the conceptual life in the universe originates.

#### FOR THE PLANETARY SYSTEM

The centripetal acceleration we found overturns the explanation of the moon's orbit, with the law of attraction of masses, when it is inversely proportional to the cube of the radius of the two masses. The explanation for the attraction of the moon was given by Newton and is not valid because the law of inverse square does not apply.

Also, the formula was used,  $F = GMm/r^2 = mv^2/r$ ,  $v = 2\pi r/T$ ,  $T$  = the period of the orbiting celestial body around the sun of mass  $M$ . This formula is correct, for stationary attracted masses, as the Cavendish experiment proved, and not for rotating bodies that have a centripetal force. The same formula applies to attracted stationary charges, as the Coulomb experiment proved. This formula implies the,

$$GM/4\pi^2 = r^3/T^2$$

Which is a condition introduced by Kepler for the orbits of the planets. But now, because we have proven that it is possible, something has gone wrong.

$$F = m \frac{4}{\pi^2} \frac{v^2}{r} = F = m \frac{4}{\pi^2} \frac{(2\pi)^2 r}{T^2} = G' \frac{Mm}{r^3}, G'M = \frac{16r^4}{T^2}.$$

We proved the law of the inverse cube,  $F = k/r^3$ ,  $r = (F/k)^{1/3}$ . If the angular momentum is constant and the orbit of the celestial body is elliptical, then  $vr = L$ ,  $L = \text{constant}$ . And  $r = L/v$ , so,

$$Lk^{1/3} = C = vF^{1/3} = \frac{m^{1/3} v 0.4 v^{2/3}}{(r)^{1/3}} = \frac{m^{1/3} 0.4 v^{5/3}}{(r)^{1/3}} = \frac{mv^2}{r} \frac{0.4(r)^{2/3}}{m^{2/3} v^{1/3}} = F \frac{(r)^{2/3}}{m^{2/3} v^{1/3}}$$

Angular momentum is not constant in elliptical motion, because it  $F \frac{(r)^{2/3}}{m^{2/3}v^{1/3}}$  is not constant. In circular motion, it is constant, because then  $v$ ,  $r$  are constant. This means that the celestial body does not travel equal areas in equal times, the second condition introduced by Kepler.

Spacecraft missions to the moon, Mars and all planetary bodies are planned in a geocentric coordinate system.

#### PRIVILEGED FRAME SYSTEMS

It is understood that the earth is the absolutely privileged reference system. But every celestial body is also privileged, within its gravitational field. Within it, light propagates at a constant speed and in relation to the coordinate system of the celestial body. In relation to other reference systems, Galileo's transformations apply to light.

When velocity is not constant in all reference systems, the theory of relativity is not produced.

In 1993 I presented my work PRIVILEGED FRAME SYSTEMS AND THE LAW OF LIGHT, before university professors, at the University of Ioannina. I found considerable support, but professors did not become the propagators of the subversion of the theory of relativity.

#### THE ONE-DIMENSIONALITY CORRESPONDING TO THE 3 DIMENSIONS OF SPACE

From the above, it is derived,

$$\begin{aligned} x &= x_0 + v_x t & \text{and } t &= (x - x_0) / v_x \\ y &= y_0 + v_y t & t &= (y - y_0) / v_y \\ z &= z_0 + v_z t & t &= (z - z_0) / v_z \end{aligned}$$

in the Cartesian coordinate system. When the motion is steadily accelerated by acceleration  $a$  and is linear, then the positions will be,

$$\begin{aligned} x &= x_0 + a_x t^2 & \text{and } t &= \{(x - x_0) / a_x\}^{1/2} \\ y &= y_0 + a_y t^2 & t &= \{(y - y_0) / a_y\}^{1/2} \\ z &= z_0 + a_z t^2 & t &= \{(z - z_0) / a_z\}^{1/2} \end{aligned}$$

In these six equations, we find the one-dimensionality of time, which corresponds to the three dimensions of space. So, it's one dimension, but if we look at it in the coordinate system, it has three dimensions. So, the universe in which we live is four, if one sees time as a dimension. And we immediately proceed to the definition of time and space.

#### DEFINITION OF TIME AND SPACE

As Aristotle mentions in the Lecture on Nature and Saint Augustine in the Confessions, time is motion. The movement of the universe around the axis of the world in 24 hours, makes us a day, a unit of time and 365.22 days a year, which corresponds to the periodic fluctuation of the earth-sun radius. About 32,000 periodic movements of quartz, makes us a second, a unit of time. Since the unit of time is one or many periodic movements of a body, body or body, then time is also motion.

#### THE NEW PHYSICS WITHOUT THE CONCEPT OF ELECTRIC CHARGE REPLACING THE ELECTRICAL CHARGE WITH A MAGNETIC ONE

If you get close to the positive battery terminal at the south magnetic needle pole, it pulls it, while the negative pole repels it. The battery has a difference in electrical potential, electrical voltage and is like a magnetic dipole, i.e. the positive pole acts as the north pole of a magnet, or magnetic dipole. Note that the same pole of the magnetic needle, if you approach it in the center of the battery stem, the attraction is less, because it is metal. So the electrical voltage of the electric cell is a magnetic dipole. The attraction and repulsion from the poles of an electric battery is more noticeable in the battery that has its poles side by side (9 Volts).

#### THE ROD OF EBONITE, GLASS, RUBBER, etc.

All rods that are electrically "charged" are bad conductors of electricity. Therefore, a charged rod, when it rests on an electroscope on the protrusion-top of the electroscope, does not transmit as an electric current, the "electric charge" to the protrusion and then to the spike of the electroscope that is now deviating. This deviation does not come from an electric

current that deposited a charge on the pin and the axis of the electroscope. The charge of the rod is prevented from being transferred, because the rod is a dielectric body. It is due to magnetic change.

Besides, there is a very weak repulsion of an ebonite rod from an ebonite rod, without first rubbing the ebonite. If there was an electric charge on the rod, it would be removed by contact with another body and there would be no weak repulsion, but this is not the case now because there is the weak repulsion, without friction.

The ebonite rod is attracted to the north magnet pole slightly, and especially when it is rubbed with woolen cloth. We conclude that rods are bad conductors of electricity, but they have local magnetic fields, which cause attraction.

### ELECTRIC POTENTIAL AND ELECTROSCOPE

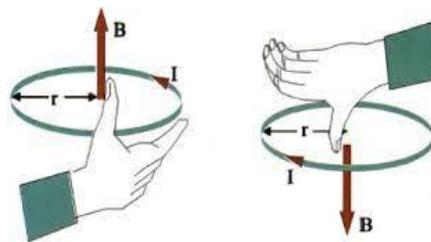
As we know from Bohr's atomic theory, in the hydrogen atom, the proton has an electric potential,  $V=ke/r$ , where  $e=q$ =electric charge. From such relationships, we formed the impression that a potential difference is due to electric charges and that in a capacitor, if we apply an electric potential difference, positive and negative charges will be formed!

Watch out now! We have an electric source of electricity potential difference. We connect it with conductors with metal spheres, so the difference in electrical potential is transferred to the spheres. Is it transposed "with electrical charges"?

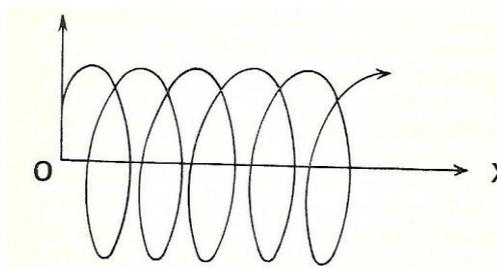
Analogous as here with the electric source and the electroscope and the grated ebonite rod, it does not have an electric charge, but a magnetic one.

### THE "ELECTRIC CHARGE" IS DUE TO MAGNETIC

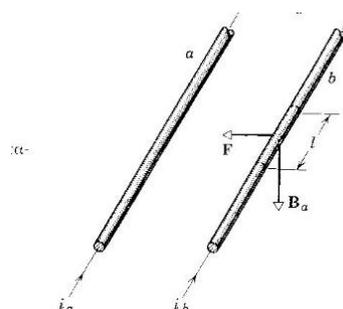
We know that a circular conductor of electric current, creates a magnetic field as in the shape and magnetic moment and forms a magnetic dipole.



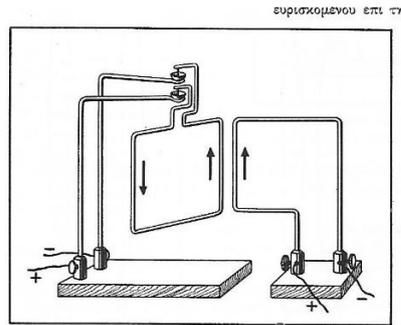
When an "electric ion" moves in a straight line, or an "electric current" crosses a conductor in a straight line, a circular magnetic field is formed around the conductor, as in the figure,



When two parallel electrical conductors are passed through by contiguous currents, they are attracted, as in the figure,

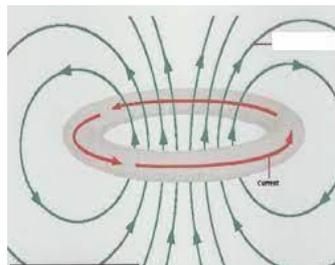


This was demonstrated with Ampere's bank as in the figure,



Σχ. 232. Ήλξεις και άπωσις παραλλήλων ρευμάτων. Τρόπος του Ampère.

Notice the figure below. Circular current conductor, creates a circular magnetic field around the conductor.

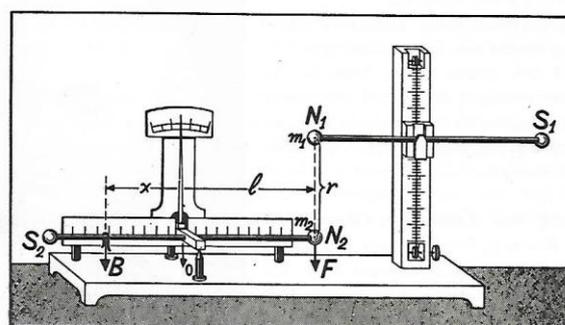


In the above figure, the two parallel conductors adjacent to the circular red conductor, located at an angle of 180° and parallel at 180° degrees in the circular conductor, are attracted. It is also as if two heterogeneous "electric charges" are circling and the circular magnetic field of one falls vertically in the course of the other and attracts it in this case, like the conductors of a parallel pair of electric conductors.

In other words, they are at an angle of 180° of the circular conductor, as if they were two parallel contiguous straight conductors in the shape, although they are two parallel conduits, because the "charges" are heterosymmetric. Heterosim charges are due to the fact that they are opposite each other and move opposite in the same frame of reference. And these electric charges are due to the flow of ether achieved by the self-rotation of the bubbles. The bubbles themselves rotate around their axis parallel to the velocity vector, in the hydrogen atom. And it drags the neighboring ether into magnetic rotation (like the magnetic field), because the ether has a low viscosity.

MAGNETISM QUANTITIES

The physicists took two identical rod-shaped magnets and the rods ended at spherical poles of the magnets and created a magnetic yoke, as in the figure.



Σχ. 16. Μαγνητικός ζυγός. Διάταξις διὰ τὴν πειραματικὴν ἀπόδειξιν τοῦ νόμου τοῦ Coulomb.

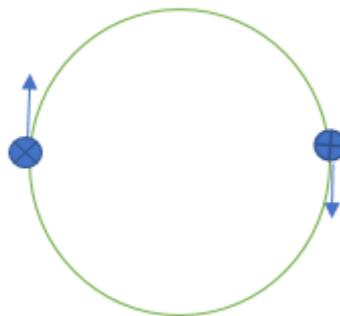
The moments  $F_l = Bx$  and  $B$  were the weight they put on the yoke to balance the magnetic force. The experimental result was that the force  $F$  was inversely proportional to the square of the radius  $r$ . They assumed that the magnetic pole has one magnetic quantity  $q_m$  and the other opposite and  $F = -q_m^2 / r^2$ . In the electroscope, or in the Coulomb "electric yoke", the same thing happens, these are amounts of magnetism and they were considered electric charges. Here is the Coulomb magnetic yoke.

Apparently, at the spherical poles of magnets, there were current rings perpendicular to the radius of the sphere. The rings were clockwise at one pole, where at the corresponding point at the other pole they were counterclockwise. Current rings are due to the rotation of the dilute ether bubbles of atoms and form a magnetic field.

ETHER FLOW THE MAGNETIC FIELD

In a circular current loop, a magnetic dipole is formed. The ether, which has the property of a fluid, passes through the circular loop, in a direction from the south pole to the north, just like the dynamic lines of the magnetic field, the circular electric loop.

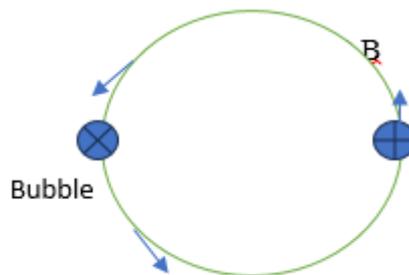
In a hydrogen atom, two equal-mass bubbles of the dilute ether orbit in a circle at velocity  $c$  at the base level. In fact, each bubble rotates around its axis with great frequency (self-rotating) and the axis of rotation is parallel and contiguous to the vector of the external velocity of the bubble.



A hydrogen atom with the two bubble-particles orbiting their center of mass at a speed of  $c$ , this is a bound photon. Each bubble self-rotates around an axis parallel to the velocity vector.

When the bubble rotates around its axis, it sweeps away the surrounding ether that has a low viscosity and rotates as well, like the magnetic field of a direct current conductor or "electric charge". This field was demonstrated by Oersted by deviating a magnetic needle perpendicular to a flowing current conductor.

The magnetic field of one bubble to the right and around it and in the rotating other, is approximately this,



Two orbiting bubbles around a center of mass in radius  $r$ , one heading towards the page and the other coming out of the page. The rotation of the magnetic field of one bubble around its axis is created by the flow of ether that drifts and vertically intersects the velocity vector of the other. Here you see the system of the atom, where one bubble is a privileged reference system and the other orbits in radius  $R=2r$

As you can see, here the magnetic field of a bubble-particle is created by its rotation around its axis, and it is not like the circular conductors of the spherical poles of the magnet, where the law of the inverse square of the radius of distance of the spheres has been proved. Here the two bubbles orbit in radius  $r$  around their center of mass in a circle and each bubble orbits in radius  $R=2r$  around the other in a circle, if we mean that the other bubble is stationary, that is, if this is the privileged frame of reference.

Thus, it is true<sup>16</sup>, 
$$F = m \frac{0.4v^2}{R} = \frac{0.4(mvR)^2}{mR^3} = \frac{k}{R^3}$$

<sup>16</sup> International Journal of Mathematics and Physical Sciences Research, volume 11 issue2 Oktober 2023-March 2024  
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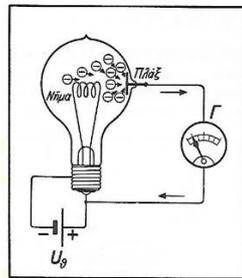
That is, in rotating bodies, the interaction force is the inverse of the cube of their radius. So, since we talked about quantities of magnetism as in Coulomb's magnetic balance, now, the magnetic quantity of the bubble will be  $e_m$  and will be corresponding to the electric charge, and the current from the rotation of the bubbles with a frequency of  $f$ , will be,  $I=e_m f$ , and  $I_1=I_2$  in the hydrogen atom. It will be the force of attraction of the charges of the hydrogen atom, inverse of the cube of their radius.

#### THE HYDROGEN ATOM AT LOW PRESSURE

We have taken the spectra of the elements, as well as the hydrogen and the gaseous elements were at a pressure of less than 0.008 bar. The spectrum of hydrogen was described by Balmer with his empirical formula, where  $\lambda$  is the wavelength of radiation with an initial

$\lambda_0, \lambda = \lambda_0 \left( \frac{1}{n_f^2} - \frac{1}{n_i^2} \right)$ , wave and  $n_f$  = final level of the electron and  $n_i$  = initial level. Balmer gave his formula for the electrons of established physics, we use it for the bubbles-particles of the atom ether.

The existence of electrons was "proven" by Edison when he built an incandescent lamp and between the filament and another pole he put a capacitor, created an electric voltage and observed a small flow of current.



Σχ. 438. Όταν η λάμπα συνδέεται, μέσω του ειδικού γαλβανόμετρου, προς τον θετικό πόλο πηγής συνεχούς τάσεως, τα ηλεκτρόνια κινούνται εκ του διακόπτη νήματος προς την λάμπα.

He considered that the incandescent filament emits electrons, which constitute the current observed. However, only photons are emitted in the lamp, from the bound photons of atoms, which become carriers of the small current. There are no electrons and protons, photons are electrical disturbances of the ether and flow of a small electric current of a pair of magnetic rings!

Hydrogen is the simplest element, it consists of two smaller "particles"-bubbles, which must be equal and similar and opposite in magnetic amount of their flux. And the magnetic amount exists due to the rotation of the bubble around its axis. The magnetic amount is  $e_m$  and the two bubbles have equal mass, to harmoniously execute the movements in the particle hydrogen atom and its center of mass.

These two particles are bubbles of thin ether in the surrounding denser. They move in a circle around their center of mass, create a magnetic field  $B$  each and an electric current  $I=e_m f$ ,  $f$ =rotation frequency, and the interaction of their electric charges with the magnetic field, create the mass of the bubble  $m$ . The hydrogen atom is a bound photon, with a velocity of rotation of  $c$  particles, in the elementary position-crust, at low pressure.

#### THE HYDROGEN ATOM

The equation of centripetal force for the hydrogen atom, is,

$$F = \frac{\mu_0 I_1 I_2 (2\pi R)}{2\pi R} = \mu_0 (e_m f)^2 = \frac{ke_m^2}{R^3} = m \frac{0.4c^2}{R} = \frac{0.4(m c R)^2}{m R^3}$$

We know that  $B=\mu_0 I/2\pi R$  and,  $\mu_0=2\pi R B/I$ . But we know from Balmer,  $2\pi R=\lambda_0=91.1$  nm, and  $R=1.45 \times 10^{-8}$  m (according to Balmer's formula). And,

$$\mu_0=9.11 \times 10^{-8} \text{ B/I}$$

But  $\mu_0=0.4mc^2/R$  and,  $m=3.3 \times 10^{-15} \text{ B/Ic}^2 = 3.67 \times 10^{-32} \text{ B/I}$ .

And because,  $ke_m^2/R^3=\mu_0 I^2=m_0(emf)^2$   $\mu_0=k3.03 \times 10^{-8}$ ,

since  $f=c/\lambda_0=3.29 \times 10^{15}$  Hz. and,  $B/I=1$

$$m=3.67 \times 10^{-32} \text{ kgr}$$

$$e_m=1/f=3.03 \times 10^{-16} \text{ Cb}_m$$

and  $\text{Cb}_m$  = unit of amount of magnetism.

$$\text{True, } \frac{ke_m^2}{R^3} = m \frac{0.4c^2}{R} \text{ and,}$$

$$m=3.67 \times 10^{-32} \text{ kgr.}$$

$$k=3$$

$$\text{True, } ke_m^2/R^3 = \mu_0 I^2 \text{ and, } I=1 \text{ Amp, } B=1 \text{ T.}$$

The "electrical" potential of one bubble is  $V=ke_m/R^2=5.32$  Volts.

But in the hydrogen atom among the floating bubbles,

$$F=e_m V/\pi R = ma = mR/(\Delta T/4)^2, \text{ because in } \Delta T/4 \text{ the force and}$$

$$V=(m/e_m)16R^2/T^2(\pi/4)=(m/e_m)c^2(4/\pi)=13.6 \text{ Volts}$$

This is the ionization tendency of the hydrogen atom, in the Frank-Hertz experiment, and it is experimental proof of our theory.

In the hydrogen atom, there is electric current in rotation and electric voltage and then there is the electric power  $P=k(m/e)I^3$ . This power is like the electrical power we consume at home and pay the electricity company. The atom consumes electrical power, and power is a flow of energy in time. Energy is powered by the immaterial and impersonal zero. Every form of energy is immaterial and is stored in infinite quantities, in the tanks of immaterial zero.

#### WHY WE TAKE SPECTRA OF ATOMS

In vacuum tubes of less than 0.008 Bar, we create an electrical discharge-current of the element. The electrical voltage is large, the pressure is small, and the grains of the element loosen the cohesion of their atoms. Magnetic dipoles are the atoms of the hydrogen atom and the magnetic dipole and the electric voltage and excitation of the atoms of the gas grains is created that is inside the experimental tube at high voltage and the emission of the spectrum of hydrogen atoms occurs. As is the case with the other more complex atoms of the elements. In more complex atoms, Balmer's formula applies, only the basal level wave is smaller. I explained the spectrum of oxygen and other elements, faithfully applying what is mentioned in this paper. Composite atoms are compositions of hydrogen and helium atoms in the first crust. In the second, the 8 hydrogen atoms are arranged in a cube and rotate around the center of gravity, in pairs, on the large diagonal of the cube. As I prove, the oxygen atom has 12 hydrogen atoms.

The Oxygen atom, as we analyze below, has atomic number 12. That is, 4 internal hydrogen atoms, such as helium that we analyze below in atomic fusion and 8 in the second crust. The atoms are arranged in the shape of a cube and if you analyze the forces that prevail, the radius of the second crust is small and so that in combination with the first level and the excitations, it gives the visible spectrum of the oxygen atom, as I found, but at low pressure.

When matter (and gases) are in normal conditions of pressure and temperature, then the radiation they give is the result of the acceleration of the charge.

Prove this experimentally. Irradiate a glass jar with water and on the other side of the jar, put a light meter. When the jar is not present, the light meter shows a reading, which is almost tripled if you insert the jar. Water multiplies the number and energy of the set of photons. The atoms that make up the water emit radiation greater than they receive, and not by excitation of atoms, but by acceleration of charge.

This phenomenon follows the energy of nerve cells. From the spine, one or a few neurons give small energy, which as it propagates to the nerve, which is constantly thickening, its neurons receive initial energy that multiplies it, so that eventually it reaches the large hand, and the hand lifts a large weight.

What they did not think, those who rejected the radiation of an accelerated charge on the atom, is that this happens in dramatically large numbers of people. And the atom it irradiates, then absorbs the radiation of another person, so that the body does not lose energy, so it does not fall towards the ulcer.

**PROPULSION FORCE AND RESISTANCE FORCE OF ETHER**

As mentioned, the rotating particle of hydrogen in a circular course has an approximate velocity of fall towards its center of mass, the

$$v_v = 0.636 \times 2\pi r / T = 0.636 c$$

and in the atom we examined,  $v_v = 190.98 \times 10^6 \text{ met/sec}_A$ . It is,  $e = 3.037 \times 10^{-16} \text{ Cb}_A$ ,  $B_c = 1 \text{ TA}$ , so that a propulsion force develops from one particle to another, propulsion towards the circular course,

$$F = e v_v B_c = 5.79 \times 10^{-8} \text{ Nt}_A$$

This force results from the vertical fall of the magnetic field on the charge, and which comes from the motion of the other charged bubble-particle and pushes it with the unconscious force, on its circular course.

This is the propulsion force of the body, which meets the resistance of the ether

$$F_A = b v_v = F$$

And,  $b = 3.037 \times 10^{-16}$ .

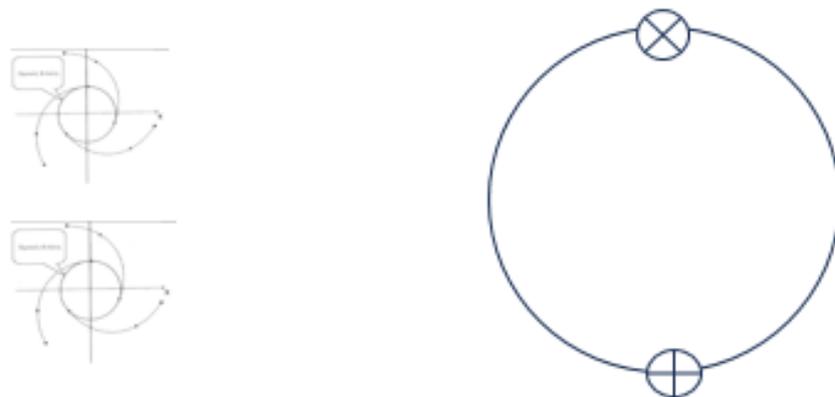
This constant also comes out in the centripetal force. And the centripetal force is also neutralized by the resistance of the ether.

**ATOMIC STRUCTURE AND FUSION, REVISION OF THERMODYNAMICS, EARTH SIZES AND CREATION OF EARTHQUAKES**

**THE MASS UNIT**

When we weigh an object, what we measure is weight. Thus, the arbitrary model mass kept in Paris had a weight of 1 Kp. This is the standard weight. But as we have shown<sup>17</sup>, the acceleration of gravity on the earth's surface is  $g = 4.9 \text{ met/sec}^2$ , so the unit of mass is  $\text{kgr-unit} = 1 \text{ kp} / g = 0.2037 \text{ kgr} = \text{kgr-unit}$ , (it was assumed that the mass standard is 1 kgr but it is a derivative of the standard weight). physics<sup>18</sup>, it's in kgr-unit.

**THE HYDROGEN ATOM**



The hydrogen atom. Two bubbles of dilute ether of equal mass, orbit around the center of mass, identical as on the left, but because they are facing each other, they have opposite charge, but positive energy. The bubbles have at a very short distance of atomic dimensions, curved dynamic lines of electric charge, then radial.

As we found, the mass of one bubble when rotated at the speed of light is  $m_p = 3.67 \times 10^{-32} \text{ kgr-unit}$  and the hydrogen atom, which consists of two bubbles, is  $m_H = 7.34 \times 10^{-32} \text{ kgr-unit}$ . These bubbles are a bound photon and therefore rotate at the speed of light.

<sup>17</sup> THE NEW NATURE WITH THE PRINCIPLE OF THE INFINITE PART OF MATTER AND THE NEW APPLIED MATHEMATICS, Vol. 12, Issue October 2024-March 2025

<sup>18</sup> THE NEW PHYSICS WITH OUT THE CONCEPT OF ELECTRIC CHARGE, Vol. 11 Issue 2 October 2023-March 2024

Kinetic energy, which is equal to potential, is,

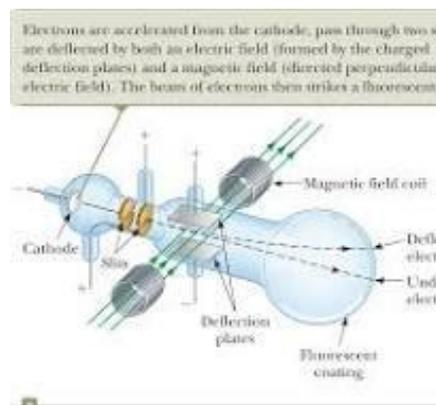
$$E_{kin}=E_p = \frac{ke_m^2}{R^2} = \frac{4}{\pi^2} m_p c^2 = 1.32 \times 10^{-15} E_{kin} - unit$$

Mass and energy are conserved in all cases.

When the pressure inside the tube is small  $P=8 \times 10^{-4}$  Atm, for the hydrogen atom inside a tube where we get its spectrum, the radius of the atom is  $r=R/2= 7.225 \times 10^{-9}$  met. Inside the tube the temperature is high, below the flow of electric current. The electric charge is,  $e=3.03 \times 10^{-16}$  Cb-unit. It depends on the pressure and temperature conditions in which the hydrogen is present.

The bubble that rotates at the speed of light within the hydrogen atom, at high and low temperatures. Under normal conditions of temperature and pressure, due to an increase in the viscosity of the ether, it decreases from when it was in the tube where we were taking its spectrum and it was at a low pressure and ends in speed  $v$ , but the energy is conserved and that is why the mass increases. Both the rotation frequency and the speed of light are maintained, the rotation radius is reduced.

Thompson did the following experiment. He radiated from a thermionic cathode, charged bubbles, which he considered as electrons and these passed through a capacitor with an electrical voltage  $V$  and a magnetic field of two coils  $B$ , the distance and length of the capacitor plates are  $d$  and  $l$ , and the bubbles diverge angle  $\theta$ .



The reason is that Thompson found  $\frac{e}{m} = \frac{V\theta}{B^2ld} = 1.76 \times 10^{11} 19$ . But, the electrical voltage is  $V=RI$  according to Ohm and the unit of current was defined by Faraday and is proportional to the molar mass gr-mole, i.e. 0.2037 gr-mole, to have it in kgr-unit the molar mass. Again, the magnetic field was measured by the formula<sup>20</sup>  $B = \frac{mg}{18li}$ , where  $m$  is the mass from the scales to the current balance and have an acceleration  $g$ ,  $l$  is the distance between the two sides of the parallelogram current conductor and  $I$  is the current flowing through the conductor. Thus, the correction to be made for the mass is offset against that of the current, in the magnetic field. Then the correction for the acceleration of gravity remains, which we said is half of the acceptable value and the unit of magnetic field half. Then,

$$\frac{e}{m} = \frac{V\theta}{B^2ld} = \frac{1.76 \times 10^{11} \times 0.2037}{\frac{1}{2} \times \frac{1}{2}} = 1.43 \times 10^{11}$$

so with the electric charge  $e=3.03 \times 10^{-16}$  Cb-unit that we found, and is,  $m= 2.3 \times 10^{-27}$  kgr-unit and, since the energy is conserved and is, , the rotation speed  $v=1.19 \times 10^6$ ,  $\frac{ke_m^2}{R^2} = \frac{4}{\pi^2} mv^2 = 1.32 \times 10^{-15}$  We said that the rotation frequency  $f=3.27 \times 10^{15}$  Hz is conserved, so it will be,  $v=\omega R=2\pi f \cdot R$ , and

$$R= 5.79 \times 10^{-11} \text{ met.}$$

This radius of hydrogen is in normal conditions.

<sup>19</sup> MODERN PHYSICS, Serway, p. 96.

<sup>20</sup> PHYSICS II, Halliday-Resnick, p. 176

Hydrogen is monoatomic<sup>21</sup>, in 22.4 lit volume, contains 0.002 kgr, so  $0.002 \times 0.2037 / 22.4 \text{ lit} = 4.07 \times 10^{-4} \text{ kgr-unit} / 22.4 \text{ lit}$ , at a pressure of  $P_0 = 1 \text{ Atm}$  and a temperature of 273.215 k.

$$\text{hydrogen atoms. } N_0 = \frac{4 \times 10^{-4}}{2 \times (2.3 \times 10^{-27})} = \frac{8.85 \times 10^{22}}{22.4 \text{ lit}} = \frac{8.85 \times 10^{22}}{0.0224 \text{ met}^3} = 3.95 \times 10^{24} / \text{met}^3$$

At pressure  $P_Y = 0.0008 \text{ Atm}$  there are fewer molecules, these are  $N_Y$ , so,

$$\frac{P_Y}{P_0} = 0.0008 = \frac{\frac{m_Y}{A} \gamma}{\frac{m_0}{A} \gamma} = \frac{N_Y m_H}{N_0 m_H} = \frac{N_Y}{N_0}$$

And  $N_Y = 3.16 \times 10^{21} \text{ molecules/met}^3$ . If these molecules were arranged in cube vertices, then the edge of the cube is, a met. So,  $\alpha = (3.16 \times 10^{21})^{-\frac{1}{3}} = 6.8 \times 10^{-8} r_Y$ , the mean distance radius between atoms, is,  $r_Y = 3.4 \times 10^{-8} \text{ met}$ . We said that at this small pressure and temperature within the tube where the hydrogen is, the radius of the atom is,  $r = R/2 = 7.225 \times 10^{-9} \text{ met}$ . So the average distance of the atoms, for the radius of atoms is times greater,  $\frac{r_Y}{r} = \frac{3.4 \times 10^{-8}}{7.225 \times 10^{-9}} = 4.7$

The average distance between atoms at the pressure of an atmosphere and a temperature of 273.15 k, is,

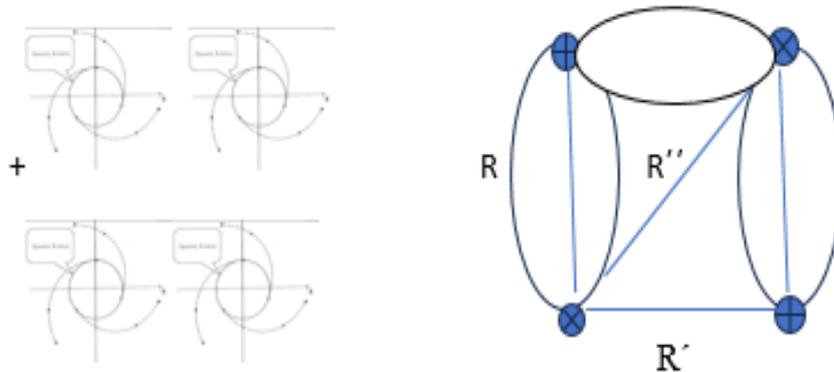
$$a = (3.95 \times 10^{24})^{-\frac{1}{3}} = 6.32 \times 10^{-9} \text{ met}$$

And the average radius of distance between atoms, at this pressure is,

$$\text{met. } r_0 = \frac{1}{2} \alpha = 3.16 \times 10^{-9}$$

#### ATOMIC FUSION OF TWO HYDROGEN ATOMS INTO ONE HELIUM, AT LOW PRESSURE

At low pressure and elevated temperature, two hydrogen atoms fuse as follows:



Helium atom, consists of two hydrogen atoms. The bubbles are spinning not only at each of the two hydrogen atoms at speed  $c$ , but again at speed  $c$ , the two bubbles of the different atoms are spinning.

For a helium atom, fusion takes place at a high temperature, where the orbital velocity is  $c$ , and two hydrogen atoms fuse as in the figure above, but there are for each bubble the following energies, while they are,  $R=R, R'=R: \sqrt{2}$

$$\frac{ke^2}{R^2} + \frac{ke^2}{R^2} - \frac{ke^2}{R'^2} = \frac{4}{\pi^2} m_p c^2 + \frac{4}{\pi^2} m_p c^2 - \frac{4}{\pi^2} m_p v^2$$

$$\frac{1}{R^2} + \frac{1}{R^2} - \frac{1}{R'^2} = \frac{4}{\pi^2} \frac{m_p c^2}{ke^2} + \frac{4}{\pi^2} \frac{m_p c^2}{ke^2} - \frac{4}{\pi^2} \frac{m_p v^2}{ke^2}$$

$$\text{And, so, } \frac{ke^2}{R'^2} = \frac{4}{\pi^2} m_p v^2 v^2 = \frac{\pi^2}{4} \frac{ke^2}{m_p R'^2} = \frac{\pi^2}{4} \frac{3 \times (3.03 \times 10^{-16})^2}{3.67 \times 10^{-32} \times (\sqrt{2} \times 1.45 \times 10^{-8})^2}$$

$$\text{then } v = 2.09 \times 10^8 \text{ met/sec.}$$

<sup>21</sup> THE DEATH OF ATOMS AND THE NEW CHEMISTRY IN TERMS OF WORLDVIEW 'THE IDION', Vol. 12, Issue October 2024- March 2025

Initially, the two hydrogen atoms had. In the atom of the helium, they have,  $E_p = 4 \frac{ke^2}{R^2} = 5.24 \times 10^{-15} E_{kin} - unit$

$$E_p' = 4 \frac{ke^2}{R^2} - 2 \frac{4}{\pi^2} m_p v^2 = 5.24 \times 10^{-15} - 1.32 \times 10^{-15} = 3.9 \times 10^{-15} E_{kin} - unit$$

There is a loss of energy, which is compensated by the emission of a photon with an equal amount of positive energy. The energies of the atom are constant (kinetic and potential energy), at all pressures and temperatures, and have a constant velocity of rotation  $c$ , because they maintain velocity in all variations. They also keep their mass constant, and in the dynamic energy that is constant, under the various conditions of pressure and temperature, they change with equal percentage change, the amount of electric charge and radius.

$$\Delta E = -1.32 \times 10^{-15} E = 1.32 \times 10^{-15} E_{kin} - unit \quad E_p = \frac{ke^2}{R^2}$$

The angular momentum is  $\hbar = m_p c R = 1.59 \times 10^{-31}$ ,  $h = 10^{-30}$ , So the photon emitted has a frequency of  $\Delta E/h = f = 1.32 \times 10^{15}$  Hz and a wave  $\lambda = 227.2$  nm. That is, during the atomic fusion of two hydrogen atoms, in a helium atom, photons X with a wavelength  $\lambda = 227.2$  nm are emitted.

In further fusion of helium atoms and generally smaller atoms in higher ones, shorter X-rays are emitted. These radiations are captured by telescopes-antennas and scientists believe they have found a black hole. Black holes have no logic, the universe is an infinite logic and black holes do not exist.

As you can see, the suns that achieve atomic fusion and high temperatures will evolve into gaseous planets such as Jupiter and Saturn and after billions of years into solid planets, such as Mars, but also the earth, which was originally the sun.

#### THE UNITS OF PHYSICS

It is: The unit of mass,  $kgr-unit = 0.2037 Kgr$

The unit of force  $kp-unit = 0.2037 kp$

$$kp-unit = g, \quad kgr-unit = 4.905 kgr-unit$$

$$Nt-unit = 0.2037 Nt$$

$$kp-unit = 4.905 Nt-unit$$

The energy unit,  $E_{kin} - unit = E_p - unit = 0.2037 Joule$

But the following<sup>22</sup> happens. The established physics and we, accept a minimum electric charge, which when moving produces the electric current, is,

$$I = Ne/t,$$

$I$ =the electric current,  $N$ =the number of elementary minimum loads,  $e$ = the minimum load and  $t$ = the time in which the load moves. If  $E$  is the electric field formed by the electric charges in the conductor, there is a force  $F = NeE$ . We know that the potential difference  $\Delta V$  is  $\Delta V/L = E$ , i.e. the potential difference at the ends of the conductor length  $l$ , divided by its distance  $l$ , is equal to the electric field  $E$  formed by the two charges. Then  $F =$

$$NeE = Ne \frac{\Delta V}{l} = Nma = Nm \frac{\Delta x}{\Delta t^2}$$

$m$  = the elementary mass, the mass of the elementary charge  $e$ .

$$\text{Then, (1)} \quad V = \frac{m}{e} l \frac{\Delta x}{\Delta t^2} = k \frac{m}{e} v^2$$

$k = l/\Delta x$ , a coefficient dependent on the resistance of the conductor and we will see below.

$$\text{But} \quad I = \frac{Ne}{t} = \frac{Nel}{lt} = \frac{Nev}{l} = \frac{NevA}{lA} = \frac{NevA}{Vot} = nevA$$

<sup>22</sup> THE NEW THEORY OF ELECTRICITY AND THE ERRORS OF THE EXISTING ONE, International Journal of Engineering Research and Reviews, Vol. 12, Issue 4 October 2024- December 2024

Where A is the cross-section of the electrical conductor of length l, at the ends of which there is the potential difference ΔV, and lA=Vol, the volume of the conductor, and n=N/Vol, the density of the charges, and we have, (2)  $v = \frac{l}{neA}$

(1), (2) imply,

$$V = k \frac{m}{e} \frac{1}{(neA)^2} I^2 = k \frac{m}{e} \frac{1}{n^2 e^2 A^2} I^2 = k \frac{m}{e} \frac{l^2}{N^2 e^2} I^2 = RI^2 = RI_{OHM}$$

$$I = I_{OHM}^{\frac{1}{2}}$$

The unit of current, because it was defined in the electrolysis of silver nitrate by Faraday and is proportional to the molar mass of silver, and the unit of mass is equal to 0.2037 Kgr, then,  $Amp_{OHM} - unit = 0.2037 Amp_{OHM}$

$$Amp = Amp_{OHM}^{\frac{1}{2}} = 2.21(Amp_{OHM} - unit)^{\frac{1}{2}}$$

$$Amp - unit = \frac{1}{2.21} Amp = 0.451 Amp$$

The unit of electrical voltage is, Volt-unit= 0.2037 Volt

Electricity is,

$$Joule = Volt.Amp_{OHM}.sec = 0.2037^2(Volt - unit).(Amp_{OHM} - unit).sec = 0.0451 E_{el} - unit$$

The electricity of the new electricity, P=VI.sec ,

$$Joule = Volt.Amp.sec = Volt.\sqrt{Amp_{OHM}sec} = 0.2037x\sqrt{0.2037x}(Volt - unit).(Amp - unit).sec = 0.092 E_{el} - unit$$

$$E_{kin} - unit = E_p - unit = 0.2037Joule = 0.0092E_{el} - unit$$

#### PRESSURE AND VOLUME OF HYDROGEN

In a cubic meter of hydrogen, at zero Celsius, there are atoms, in one cubic meter. Consequently, at another temperature T, and in one cubic meter, it is true,

$$N_0 = 3.95x10^{24}P_0V_0 = N_02mv_0^2$$

$$PV = N_02mv_T^2$$

If the new formula is in a constant volume of one cubic meter, then,

$$\frac{P}{P_0} = \frac{T}{T_0} = \frac{v_T^2}{v_0^2}$$

Also, in a cubic meter of hydrogen, its density is,

$$\rho_H = \frac{0.08988x0.2037 \text{ kgr-unit}}{\text{met}^3} = 0.0183 \frac{\text{kgr-unit}}{\text{met}^3}$$

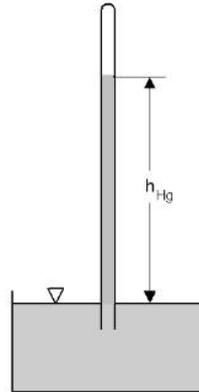
$$\text{and } v_0 = \sqrt{\gamma \frac{P_0}{\rho_H}}$$

$$P_0 = \frac{N_02mv_0^2}{\text{met}^3} = \frac{0.0183v_0^2}{\text{met}^3} = \frac{\rho_H \cdot \text{met}^3}{\text{met}^3} \frac{\gamma P_0}{\rho_H} = \gamma P_0 \quad \text{And, } \gamma=1.$$

This formula applies to all gases and air.

$$\text{The speed of sound at 273.15 degrees Kelvin is, so, } v = 331 \frac{\text{met}}{\text{sec}} = \sqrt{\frac{P_0}{\rho_{air}}} = \sqrt{\frac{P_0}{1.3x0.2037}}, \text{ then } P_0 = 7683 \frac{\text{kp-unit}}{\text{met}^2} = 1565 \frac{\text{Nt-unit}}{\text{met}^2} = 7683 \frac{\text{Nt}}{\text{met}^2}$$

This is the pressure of an atmosphere, at 273.15 degrees Kelvin and is 0.076 times less than that measured by Torricelli.



Torricelli experiment, mercury column in an inverted tube, located inside a container mercury

He measured the atmospheric pressure high. Of course, the mercury in the tube had an acceleration  $g$ , which we gave that the correct value is half. In fact, Torricelli estimated it to be so high because he did not take into account the counterpressure formed in the supposed vacuum formed by the mercury in his pipe. It was not a complete vacuum, we cannot achieve a complete vacuum. Mercury atoms were suspended there, attracted to each other by both the walls of the tube and the mercury column and formed a pressure, which was not calculated. Besides, the pressure he calculated is a very great pressure, which man would not bear. Pressure is a bearable pressure for man to accept.  $P_0 = 1.013 \times 10^5 \frac{Nt}{met^2}$   $P_0 = 7683 \frac{Nt-unit}{met^2}$

#### THE EQUATION OF IDEAL GASES AND OTHER CONSTANTS

It is an experimental fact that the volume of a gas, relative to its temperature, is,

$$V = V_0(1 + a\theta) = V_0a \left( \frac{1}{a} + \theta \right) = V_0aT$$

Where, the initial volume of the gas, at a temperature of zero Celsius and constant pressure. And  $\alpha = 1/273.15 V_0^0K$ , a constant,  $\theta =$  the temperature of the gas in degrees Celsius. I also proved this formula, in a related experiment I did, for a small temperature range.  $\theta$

The pressure of the gas is, where the initial pressure of the gas, at a temperature of zero Celsius and a constant volume.  $P = P_0(1 + a\theta) = P_0aT$

Pressure and gas volume formulas, at different temperatures, are considered prerequisites for building thermodynamics.

When both pressure and volume change at the same time, at the same temperature, then it is,

$$, T \text{ in degrees Kelvin. } PV = P_0V_0(1 + a\theta)^2 = P_0V_0(aT)^2$$

When only the volume changes and the pressure is constant, then,

$$P_0V = P_0V_0aT$$

When the pressure changes and the volume is constant, then,

$$PV_0 = P_0V_0aT$$

Established physics gives for ideal gases the formula,

$$PV = P_0V_0aT = RT$$

Find you, who made a mistake and proved this formula for the ideal gases.

And, again,  $P_0\Delta V = P_0(V - V_0) = P_0V_0(aT - 1) = C_P\Delta T = mc_P\Delta T$

$$V_0\Delta P = P_0(P - P_0) = P_0V_0(aT - 1) = C_V\Delta T = mc_V\Delta T$$

So, and  $C_P = C_V, c_P = c_V$

### SPEED IN A HYDROGEN ENVIRONMENT

We will have<sup>23</sup>, and under constant pressure,

$$P_0\Delta V = P_0(V - V_0) = P_0V_0(aT - 1) = N_02m_Hv_0^2(aT - 1) = mc_P\Delta T = N_02m_Hc_P\Delta T$$

$$P_0V_0(aT - 1) = 7683 \frac{kp - unit}{met^2} V_0(aT - 1) = N_02m_Hv_0^2(aT - 1) = N_02m_Hc_P\Delta T$$

$$v_0 = \sqrt{\frac{7683}{2N_0m_H}} = \sqrt{\frac{7683}{0.0183}} = 458 \frac{met}{sec}$$

This is also the speed of hydrogen, in an atmospheric pressure.

$$\text{then, , if } \Delta T=1, \alpha=274.15 \text{ so, } v_0 = 458 = \sqrt{\frac{c_P\Delta T}{(\alpha T-1)}} c_P = 1.25 \times 10^5 \text{ Joule}$$

But,  $f = \frac{m_H}{h} c_P T = \frac{2.3 \times 10^{-27}}{10^{-30}} \times 1.25 \times 10^5 \times 273.15 = 7.85 \times 10^{10} \text{ Hz}$  , this frequency is in microwaves, which is thermal energy.

The radius of hydrogen under normal conditions of pressure and temperature is,  $r = \frac{R}{2} = \frac{5.79 \times 10^{-11}}{2} = 2.89 \times 10^{-11} \text{ metr}$  as mentioned above. And under normal conditions of temperature and pressure, and the mean radius of distance between the hydrogen atoms, at the same pressure, is.  $r = 3.16 \times 10^{-9}$ , met. This means that the atoms of the gas are very far apart and collide, as described in the kinetic theory of gases

### FUSION TEMPERATURE OF HYDROGEN ATOMS

It has been said above that the negative energy in the fusion of two hydrogen atoms, into one helium, is, this energy must be replenished in the helium atom by the heat to which we subject the hydrogen, in order for it to fuse. Under constant pressure, it will happen,  $E = -1.32 \times 10^{-15} E_{kin} - unit$   $P_0\Delta V = P_0V_0(aT - 1) = E = N_0 \times 1.32 \times 10^{-15} E_{kin} - unit$

$$T = \frac{N_0 \times 1.32 \times 10^{-15}}{aP_0V_0} + 1 = 1.85 \times 10^8 \text{ k}$$

$$\text{But we said, } \frac{P}{P_0} = \frac{T}{T_0} = \frac{v_T^2}{v_0^2}, \text{ then, } \frac{P}{P_0} = \frac{v_T^2}{v_0^2} = \frac{T}{T_0} = \frac{1.85 \times 10^8}{273.15} = 6.78 \times 10^5$$

We found,  $v_0 = 498$  so,  $v_T = 4.1 \times 10^5 \text{ met/sec}$

These are the magnitudes of temperature, pressure, and average thermal velocity of the hydrogen atom when fusion occurs.

$$f = \frac{m_H}{h} c_P T = \frac{2.3 \times 10^{-27}}{10^{-30}} \times 1.25 \times 10^5 \times 1.85 \times 10^8 = 5.3 \times 10^{16} \text{ Hz}$$

It will even be,  $v_T = 4.1 \times 10^5 = \omega r_T = 2\pi f r_T = 2\pi \times 4.91 \times 10^{16} r_T$

Consequently  $r_T = 1.22 \times 10^{-12} \text{ met}$

. This is the radial thermal oscillation in the hydrogen atom, at temperature and fusion pressure.

### HYDROGEN BEAM IN GASEOUS, LIQUID AND SOLID STATE

We said, that at a temperature of 273.15 k and a pressure of an atmosphere, the radius of the hydrogen atom is, and that atoms are at a very great distance relative to that radius. It's in a gas state. At a temperature of 22.02 k it becomes liquid, and at a temperature of 14 k, it becomes solid. When the hydrogen atoms are, , at normal pressure and temperature conditions, then they are a mean distance away, met.  $r = 2.86 \times 10^{-11} \text{ met}$   $N_0 = 3.95 \times 10^{24}$   $r = 3.16 \times 10^{-9}$

At low temperatures for hydrogen, because the viscosity of the ether decreases, the speed of rotation of the charges, the atom's charges, their radius also increases. Then the radius of the atoms becomes comparable to the distance of the atoms and when they are almost equated, then the temperature is very low and the hydrogen is in a solid state. At a slightly larger difference in radii and distance, it is liquid. As the temperature rises, the viscosity of the ether increases and the radius of atoms decreases, their mass increases and they go into a gaseous state.  $r = 3.16 \times 10^{-9}$

<sup>23</sup> The specific heat capacity of hydrogen c<sub>P</sub>, calculated experimentally, this is c<sub>P</sub>=3.41 cal.gr<sup>-1</sup>.grad<sup>-1</sup>=3410 cal.kgr<sup>-1</sup>.grad<sup>-1</sup>

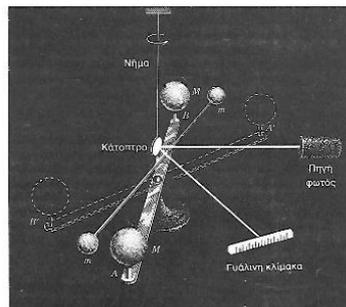
When the temperature exceeds zero Celsius and rises towards 2000 degrees, then successively the viscosity of the ether decreases again and their rotation speed and radius increase. It transitions to a liquid state and then to solid. Then, at high temperatures and pressures, fusion takes place. In solid and liquid phase, the atom of the element has a large radius, and when it switches to a gas phase it shrinks. And at high temperatures the radius increases, and then it becomes liquid plasma.

#### THE AVERAGE DENSITY OF THE EARTH'S MASS

When two masses are approximately stationary, they are forcefully attracted, . When one mass rotates around the other, then there is centripetal force and is,  $F = \frac{Gm_1m_2}{r^2}$

$$F = \frac{4}{\pi^2} \frac{mv^2}{r} = \frac{4}{\pi^2} \frac{m^2v^2r^2}{mr^3} = \frac{k}{r^3} = \frac{G'm_1m}{r^3}$$

In Cavendish's experiment, the two masses were approximately stationary, and the first formula for the pulling force of the two masses applies.



Σχ. 16-4 Ο ζυγός του Cavendish, που χρησιμοποιείται για την περιφερειακή επιβεβαίωση του νόμου της παγκόσμιας έλξης του Newton. Οι μάζες  $m$ ,  $m$  αναστρέφονται από ένα νήμα. Οι μάζες  $M$ ,  $M$  περιστρέφονται γύρω από ένα σταθερό σημείο. Ένα είδωλο του νήματος της λίστας ανακλάται στο κάτοπτρο που είναι συνδεδεμένο στις  $m$ ,  $m$  πάνω στην κλίμακα και έτσι διευκολύνεται η μέτρηση των  $m$ ,  $m$  που έλκονται να μετακινηθεί.

In Cavendish's experiment, two equal masses of  $M$ , attracted by two equal  $m$ , and the latter were at an even even.

In the experiment, there was a torque  $t$ , since the yoke oscillated at an angle  $\theta$ , and the length of the yoke was  $l$  and so they had,

$$F \frac{l}{2} = \frac{GMm}{r^2} \frac{l}{2} = \tau\theta \text{ and } G = \frac{2r^2\tau\theta}{Mml} = 6.67 \times 10^{-11} \text{ kgr}^{-1} \frac{\text{met}^2}{\text{sec}^2}$$

But we for the mass derivative, we showed that  $\text{kgr-unit} = 0.2037 \text{ kgr}$ , so,  $G = 3.27 \times 10^{-10}$

And, so,  $F = \frac{GM_{earth}m}{r^2} = mg$

$$M_{earth} = \frac{g}{G} r^2 = \frac{4.905}{3.27 \times 10^{-10}} (6.37 \times 10^6)^2 = 6.08 \times 10^{23} \text{ kgr} - \text{unit} = 1.238 \times 10^{23} \text{ kgr}$$

The volume of the earth is,  $V = \frac{4}{3}\pi r^3 = 1.08 \times 10^{21}$ , so the average density is,

$$\rho_{earth} = 114.34 \frac{\text{kgr}}{\text{met}^3} = 561.3 \frac{\text{kgr-unit}}{\text{met}^3}$$

Geologists estimate that the earth's crust is about 80 km from the seabed and reaches a maximum height of 120 km on land. We consider the earth to be a sphere, with an average crust depth of 90 km and an average estimated crust density.  $\rho_b = 2700 \frac{\text{kgr}}{\text{met}^3}$  The volume of the cortex, is, . Then the mass in this volume is,  $V_b = \frac{4}{3}\pi((6.37 \times 10^6)^3 - (6.37 \times 10^6 - 90000)^3) = 4.52 \times 10^{19} \text{ met}^3$   $m_b = \frac{2700 \text{ kgr}}{\text{met}^3} \times 4.52 \times 10^{19} \text{ met}^3 = 1.22 \times 10^{23} \text{ kgr}$

So in the interior of the earth, there is mass,

$$m_{in} = 1.238 \times 10^{23} - 1.22 \times 10^{23} = 1.8 \times 10^{21} \text{ kgr} = 8.83 \times 10^{21} \text{ kgr} - \text{unit}$$

Inside the crust is the fluid mantle, with an estimated area of 200,000 met. So further inside, there is a hydrogen sphere, with a volume,

$$V_{interior} = \frac{4}{3}\pi((6.37 \times 10^6 - 90000)^3 - (6.37 \times 10^6 - 90000 - 200000)^3) = 2.24 \times 10^{20} \text{ met}^3.$$

The density of hydrogen, in this interior, will be,

$$\rho_H = \frac{2 \times 2.3 \times 10^{-27}}{(1.45 \times 10^{-8})^3} = 0.0015 \frac{\text{kg} \cdot \text{unit}}{\text{met}^3}$$

This sphere has mass,  $m_{\text{interior}} = \rho_H V_{\text{interior}} = 3.37 \times 10^{17} \text{kg} \cdot \text{unit}$

Then the mass of the mantle is,  $m_m = 8.83 \times 10^{21} - 3.37 \times 10^{17} = 8.829 \times 10^{21} \text{kg} \cdot \text{unit}$

The volume of the mantle is,

$$V_m = \frac{4}{3} \pi ((6.37 \times 10^6 - 90000)^3 - (6.37 \times 10^6 - 90000 - 200000)^3) = 2.29 \times 10^{19} \text{met}^3.$$

$$\text{And } \rho_m = \frac{m_m}{V_m} = 385.5 \text{kg} \cdot \text{unit} = 1892.7 \text{kg}$$

So, we draw the conclusion that the average crust of the earth is less than 90 km and further inside is the fluid mantle and not as much as it is estimated today, but a few tens of kilometers and larger than we assumed above, so that the density of hydrogen in the interior of the earth is high.

The earth was a sun that cooled and acquired a crust and a liquid mantle inside, and further inside, dense hydrogen gas, which at its core is fiery and its atoms are fusing.

#### GRAVITATIONAL RADIATION

The gravity of the earth presupposes that it imparts gravitational energy to a mass, thus it gives the hydrogen atom energy,

. So, it will have a frequency, . Hydrogen is the lightest element and this frequency, it is the smallest gravitational frequency, it is the frequency of one of the two hydrogen particles. Gravitational waves are electromagnetic waves within a range of frequencies.  $E = \frac{GM_{\text{earth}}m}{r} = mgr = 2.23 \times 10^{-27} \times 4.905 \times 6.37 \times 10^6 = 6.96 \times 10^{-20} \text{E}_{\text{kin}} = \text{unit} f = \frac{E}{h} = \frac{6.96 \times 10^{-20}}{10^{-30}} = 69.6 \text{GHz}$

#### THE DEATH OF ATOMS AND THE NEW CHEMISTRY

As I proved in my successive works in Atomic Physics, atoms have dynamic energy and kinetics. I gave them as constants. But these energies are multiplied by a series of numbers, the sum of which is equal to the unit, this is the result of an invention. The order is,

$$\sum_{n=1}^{\infty} \frac{1}{2^n} = \frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \frac{1}{16} + \dots = 1$$

And the energy of the atom is,  $E = E_0 \cdot \sum_{n=1}^{\infty} \frac{1}{2^n}$

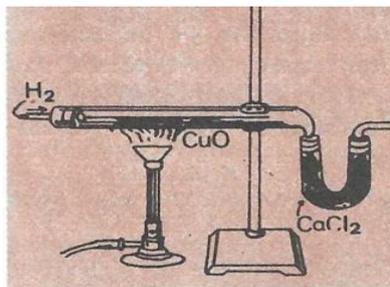
But if we consider that there are very few indivisible bubbles in matter, the bubbles which have charge and mass, and of which atoms are composed. But if the infinitely divisible is true, then this particle consists of smaller ones, and these of smaller ones, so that the final bubbles tend to zero. Then matter is a set of motions which accumulate in a body. When there is indivisibility, in the same way, the series  $\sum_{n=1}^{\infty} \frac{1}{2^n} = \frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \frac{1}{16} + \dots$ , somewhere in a minimum term ends up and is not infinite so that its sum is a unit, but is very little less than the unit. It is, where k is very large but finite.  $\sum_{n=1}^k \frac{1}{2^n} = \frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \frac{1}{16} + \dots + \frac{1}{2^k}$

In our work we proved that the hydrogen atom, where the bubbles-particles orbit around the center of mass, consumes electrical power and at the same time consumes kinetic and dynamic power. Then the energy of the atom is constantly renewed from zero, from where it takes it, but a little less than before each time, due to the fact that the order in which the energy is multiplied is not infinite. Thus, in the long run, the lack of energy accumulates and ends in the death of the individual, it breaks down into bubbles, which are the indivisible and perhaps the eternal and unchanging bodies.

In nature, where the principle of infinitely divisible applies, it must be accompanied by the infinite series and there must be eternity and immortality.

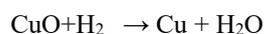
#### THE HYDROGEN ATOM IS A MONOATOMIC WEIGHT OF 1 AND OXYGEN IS A WEIGHT OF 12

Berzelius found that the weight of hydrogen in water is 1/8 of the weight of oxygen. He took a device as in the figure.



**Σχ. 16.5. Εύρεση της κατά βάρος συστάσεως με σύνθεση.**

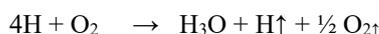
In a horizontal tube, he put CuO which weighed it. The tube continued in a U-shaped tube, where there was a weighed hygroscopic substance CaCl<sub>2</sub>. He heated the tube containing CuO and blew hydrogen into the tube. The oxygen of CuO with the hydrogen under the heat that was subjected, formed water,



and which received the water absorption from CaCl<sub>2</sub>. In the first tube remained CuO and Cu, which weighed them and weighed CaCl<sub>2</sub> which was watered and calculated the weight of the water. He also calculated the weight of the oxygen of the water from the difference between the original CuO and the CuO+Cu left after the experiment. He found a ratio of weight of hydrogen to oxygen of 1/8, if the water is the 2<sup>nd</sup>.

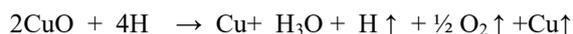
However, we maintain that in heating and combustion people are killed, they end up and turn into the sum of the bubbles-particles of which they are composed.

Hydrogen, in our opinion, is a monoatomic gas, with an atomic weight of 1. And when oxygen is burned in hydrogen, in an airtight flask, the following reaction occurs,



The symbol ↑ means that the atoms ended up in bubbles, and the water is three hydrogen atoms, with one oxygen atom, H<sub>3</sub>O.

In the Berzelius experiment the bubbles formed by the hydrogen atoms, copper and oxygen that ended up were carried away by the water vapor and were present in the mixture CaCl<sub>2</sub> and water. The following reaction occurred,



So, if he took 18 gr of water and found that 2 gr was H<sub>2</sub> in the water, it was actually H<sub>3</sub>, i.e. three hydrogen atoms. 2/3 = 0.66666, 3=(2/0.66666) gr, one hydrogen then is 0.66666 gr of what has been calculated in water. And the oxygen that after the removal was 16 gr, that is, the weight of the O, that was subtracted, the remaining Cu+CuO from the original CuO was 16 gr. But, in the reaction we gave, there is an O atom in the water and an O atom that ended up in bubbles and who were in the water. So at 16 gr, there is one atom of O in water and one O in bubbles, i.e. 8 gr each. The weight of its atom after combustion was in water (O)/0.6666=8/0.66666=12 atomic weights. So the oxygen atom O has an atomic weight of 12 atomic weights of hydrogen.

Lavoisier had weighed oxygen and hydrogen before combustion and found a ratio of hydrogen-to-oxygen weights, 1/6. He was accused of not having exact weights at that time and for this he did not find the 1/8 ratio that Berzelius later found. But, we remind you that hydrogen is a monoatomic gas, while Lavoisier considered it diatomic in its volume that reacted with oxygen, i.e. it had two H atoms, so the two monoatomic ones are 2x6=12 atomic weights (, close to what we calculated (12). In other words, its weights were extremely precise.

In the production of water, from hydrogen and oxygen in the presence of fire or electric spark in an airtight flask, the volumes of hydrogen are two and one of the oxygen that reacts. However, after accepting our analysis, the monoatomic hydrogen occupies half the volume of the corresponding oxygen O<sub>2</sub>. That is, the number of Avogadro is half in hydrogen in relation to the volume of oxygen. Then we multiply 2x6=12 the weight of H, because the volume of one H is half the volume of O<sub>2</sub> while the 2H, (H<sub>2</sub>) as much as the volume of oxygen and Lavoisier found 1:6, H<sub>2</sub> :O<sub>2</sub> because he used as reactants, two volumes H<sub>2</sub> (=1H) and one O.

## THE PRINCIPLE OF THE INCORRUPTIBILITY OF MATTER

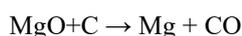
In the various experiments and with combustion, Lavoisier first weighed the reacting elements or chemical compounds and then weighed the airtight flask in which the reactions took place and the products were obtained. He found that weight is conserved and formulated that matter is transformed in its reactions, but it is preserved. He formulated the principle of preservation-incorruptibility of matter.

But we argued that in combustion atoms end up in the bubbles-particles that are composed, so the principle of incorruptibility is generalized and includes bubbles.

## THE ATOMIC WEIGHT OF MAGNESIUM Mg

Mg was considered by established chemistry to have an atomic weight of 24, which is as much as the O<sub>2</sub> we found.

If we heat MgO to 2000 degrees Celsius, with carbon C, we get,



According to the established chemistry,<sup>24</sup> this is what we get. In our opinion, however, the reaction occurs with the following products,



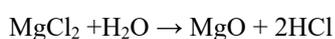
The products, due to the fact that CO is a gas, were captured in an airtight flask, where the reactants and then the products were weighed. The bubbles of 1/2 O<sub>2</sub> and C were carried away by CO and Mg↑ by Mg.

We consider that the reactants (2MgO+ 2C), have a weight according to the given science of 2x(24+16)+(2x12)=104. Then the products (Mg + CO + Mg↑ + 1/2 O<sub>2</sub>↑ + C↑), have weight with the atomic weights found by us and the weight of the carbon that we will find C=24,

$$2(24+16)+12+24=116=2\text{Mg} + (24+12)+12+24=2\text{Mg}+72$$

and Mg=22 atomic weights of hydrogen H.

And Cl is monoatomic, like hydrogen H. MgCl occurs naturally in crystals with water (MgCl<sub>2</sub> for established chemistry). At high temperature<sup>25</sup>, MgCl<sub>2</sub> is melted in water solution, and evaporated it decomposes.



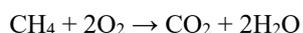
We give the reaction,



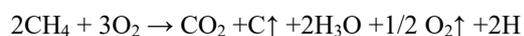
As you can see, the magnesium in the products that ended up in bubbles is monoatomic.

## THE ATOMIC WEIGHT OF CARBON

When methane is burned in an oxygen environment, the established chemistry receives the reaction,



We accept the reaction,



If the reactants had weight according to established science, 2x(12+4)+(3x(2x16)) i.e. (2CH<sub>4</sub>+3O<sub>2</sub>)=128, then the products are according to us, CO<sub>2</sub> + C↑ + 2H<sub>3</sub>O + 1/2O<sub>2</sub>↑ + 2H,

$$128 = \text{C} + (2 \times 12) + \text{C} + (2 \times (3 + 12)) + (2 \times 12) + (2 \times 1) = 2\text{C} + 80$$

So C=24 atomic weights of hydrogen.

As we indicated that the volume of O<sub>2</sub> is twice that of H, here the volume of CH<sub>4</sub> is 1.5 times that of oxygen O<sub>2</sub> and three times that of H (2x1.5=3) and the number of N<sub>A</sub> for the hydrogen atom, is divided by 2 and 1.5 for the oxygen and methane atom.

<sup>24</sup> ELEMENTS OF INORGANIC CHEMISTRY, Manolkidi-Beza, p. 353

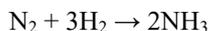
<sup>25</sup> ELEMENTS OF INORGANIC CHEMISTRY, Zengeli 1909, p. 343

The bubbles of carbon and oxygen after combustion are carried away by carbon dioxide and not by water vapor.

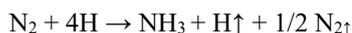
#### THE WEIGHT OF NITROGEN

We found that the atomic weight of oxygen is 12 atomic weights of hydrogen. Now let's find the nitrogen.

When we burn nitrogen in the presence of oxygen at a suitable temperature and pressure, we get according to the established science<sup>26</sup>,



We support the reaction.



That is, as oxygen with hydrogen  $\text{O}_2 + 4\text{H} \rightarrow \text{OH}_3 + \text{H}\uparrow + 1/2 \text{O}_2\uparrow$

If the reactants ( $\text{N}_2 + 4\text{H}$ ) are weighing  $2 \times 14 + 4 = 32$  according to established science, then the products according to us are,  $\text{N} + 3 + 1 + \text{N} = 32$ , and  $\text{N} = 14$  atomic weights of hydrogen.

However, the mole volume of nitrogen is  $4/2 = 2$  of hydrogen H, since in the initial reaction, they got a  $4/2$  ratio of hydrogen volumes  $\text{H}_2$  to nitrogen  $\text{N}_2$ . In other words, it is the

The ratio of the mole volume of nitrogen, to oxygen, is equal.

#### NEW RULES FOR THE NEW NATURE, WITHOUT DISTURBING THE EXISTING BALANCE

We have said that nature's general law of force is,  $F = Cr^c$ .

In the rules of the new nature, it will be,  $e^F = e^{Cr^c}$ , which has dimensions of power and will be the neon valid, for the work of a creator! It will also be true, . And the general formula for nature will prevail,  $e^{F_{centripetal}} = e^{\frac{4}{\pi^2} m\omega^2 r}$

$$e^F = e^{Cr^c} = e^{F_{centripetal}} = e^{\frac{4}{\pi^2} m\omega^2 r}$$

As you can see, the new nature does not disturb the balance of the old, since the previous formulas that have been in force in nature until now, are extended to the new ones.

At the same time, the force formulas will apply, with the same consistency,

$$\ln F = \ln(Cr^c) = \ln\left(\frac{4}{\pi^2} m\omega^2 r\right)$$

The chiefly formula.

Refer to the new mathematics, we will have,

$$\ln F = (\ln C)^{r^c} = \left\{ \ln\left(\frac{4}{\pi^2}\right) \right\}^{m\omega^2 r} = k^{m\omega^2 r}$$

$$(\ln C)^{r^c} = (k')^{r^c} = k^{m\omega^2 r} = 0.666^{m\omega^2 r} = \left(\frac{2}{3}\right)^{m\omega^2 r}$$

K' is constant and dependent on where the formula is applied, as we have already seen, on the rays.

For energy, it applies,  $\ln E = (\ln C)^{r^{c-1}} = \left\{ \ln\left(\frac{4}{\pi^2}\right) \right\}^{m\omega^2 r^2} = k^{m\omega^2 r^2}$

A dramatic consequence of the new nature is that the . That is, in terms of dimensions, it is, and

$$\text{and } C^{r^c} m\omega^2 r m\omega^2 r = C^{r^c} \omega^2 = \frac{C^{r^c-1}}{m}$$

$$T = \frac{m^{\frac{1}{2}}}{C^{\frac{1}{2}r^{(c-1)}}$$

<sup>26</sup> ELEMENTS OF INORGANIC CHEMISTRY, p. 294

We have already said from the definition of time, that the period is its unit, which will now have the dimensions of the square root of the mass it orbits, and the inverse C on the square root of its radius, which it will have accordingly, whether it is to be in the atom, or on the planet, or on the comet, etc. And it remains, from the nature that we are in, to move to the new nature, with the new rules and formulas, and in this formula, we will replace C with the dimensions that are in force now, that is, it will be dimensionally valid, and then, by introducing these dimensions, into the dimensions of the period of the new nature, we will have,

$$F = Cr^c, \quad C = \frac{F}{r^c} = m\omega^2 r^{-(c+1)}$$

$$T = \frac{m^{\frac{1}{2}}}{c^{\frac{1}{2}} r^{(c-1)}} = T = \frac{m^{\frac{1}{2}}}{(m\omega^2 r^{-(c+1)}) r^{\frac{1}{2}(c-1)}}$$

But  $\omega = 2\pi/T$  and,

$$T = \left(\frac{T}{2\pi}\right)^{\frac{1}{4}(c-1)} \frac{m^{\frac{1}{2}}}{(mr^{-(c+1)}) r^{\frac{1}{2}(c-1)}} = T^{\frac{1}{4}(c-1)} m^{\frac{1}{2}} m^{-(c-1)} \left(\frac{1}{r^2} \frac{c-1}{2}\right)^1 r^{\frac{1}{r^2} \left\{ \frac{(c-1)^2}{2} \right\}}$$

And then, dimensionally (we ignore the constant p),

$$T^{\frac{5(c+1)}{4}} = m^{-\left(\frac{1}{2}(c-1)\left(\frac{1}{r^2} \frac{c-1}{2}\right)\right)} r^{\frac{1}{r^2} \left\{ \frac{(c-1)^2}{2} \right\}}$$

Thus, in all cases of the general formula of force, where  $c = -2, -3$ , as in planets or comets, then the period T, which is a unit of time, has dimensions of some inverse force of kg·m and sec. In the case of galaxies, where  $c = -1$ , then there is not even a period, this is a unit dimensionless, i.e. again, there is no time in sec. In the case where  $c=1$ , as in the harmonic oscillation, then the period is equal to the unit, again it is not of sec dimensions.

In the nature we are going through, time is divided into discrete parts, in  $DT = \text{sec} \cdot 1-x$

And x is very large, estimated  $x=10^{33}$ . The directive to the control center of the universes to turn it into a limit dt, . Then time will freeze as motion, the movements will take place but it will not be time, the unit of the period of repetitive motion, will have the dimensions we saw above, with the combined new rules, which will apply to the new nature.

$$\lim_{\Delta t \rightarrow 0} \Delta t = dt = 0$$

## EPILOGUE

Science has come to formulate the theory of the Whole, where in the universes that function, they are governed by laws and formulas, determined by the Gods, the dimensionless zeros, and pass into nature through the center of control of the universes.

New mathematics is formulated and founded, which derives from principles, which are logical and which were formulated by the ancient Greek philosophers,

The result is a new physics, obedient to the strict laws of logic formulated by Aristotle.

The consistent definition of time is formulated, which was first formulated by Aristotle and which was repeated by Augustine, and which has the consequence, with the clarifications I make, that there is the possibility of freezing it from the control center of the universes.

The new nature and the mathematics that govern it, abolish the concept of time, which now has the dimensions of a second and whose new meaning will be with the previous freeze that will be brought by the creator, who is under and needs the synergy of the Gods. The new year will have other dimensions.

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