

# THE FINAL FORM OF THE ATOMIC THEORY

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**Abstract:** We found the centripetal force to apply to atomic physics, which is very different from the accepted physics. We found the speeds and accelerations hidden in a circular smooth motion. We formulated some of why atomic physics was misformulated, and we proved the area and volume of spheres, different from the existing ones.

We set principles, like the ancient Greek philosophers, to formulate the theory.

We formulated the two different magnetic fields, producing a circularly rotating charge.

We found a consistent system of units required by atomic theory and showed that System International is inconsistent.

We have formulated the existence of the ether. An ether with low viscosity does not contradict the Mickelson-Morley experiment and much more, it does not contradict the geocentric system of the universe, where the earth is almost stationary.

**Keywords:** Atomic physics, atomic physics, geocentric system.

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## 1. INTRODUCTION

Atomic physics was misformulated, many mistakes were made, and some of them are mentioned.

There is a constant velocity, when the particle rotates in a circle, that falls towards the center. We will find the velocities and accelerations of a body circling, as well as the area and volume of a sphere.

We will formulate the law of inverse radial distance cube of a circularly rotating body, proven by solid mathematics, and formulate the new atomic theory.

When two particles circulate with each other across, then logic and the laws of nature say that the two particles must have the same mass in order to move in stability and form the hydrogen atom.

As we demonstrate, there is a constant force of impulse in the direction of the particle's path to the hydrogen atom, which is balanced by the observance caused by the surrounding ether in the particle.

There is electrical power consumed by the atom and this is supplied from zero, from the sources of immaterial zero, which is something, being being and non-being at the same time.

## 2. METHODOLOGY

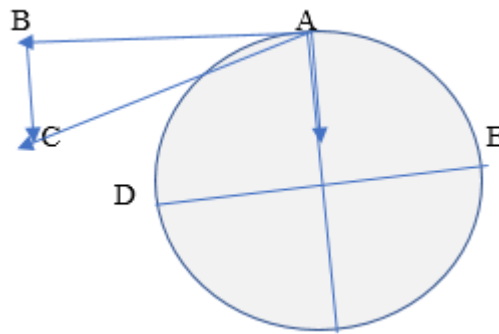
In the work, induction and abduction are widely used in the sense of logic applied to theory and mathematics.

The new thing that the work brings is the formulation of principles, like the ancient Greek philosophers, who made theories. Principles are prerequisites, so work presupposes the strength of Balmer's empirical formula for the wavelengths emitted by the hydrogen atom at electric potentials and low pressure.

A prerequisite is the acceptance of the validity of logic itself by the researcher, when applied correctly, as we think we have applied here.

In order to formulate an atomic theory, bodies small and invisible, clairvoyance (not metaphysics) and imagination are prerequisites. And even imagination that is trained from a young age to create realistically.

CENTRIPETAL, ORBIT AND RESULTANT FORCES



We consider a mobile vehicle, moving at a constant speed  $v_p$ , on a circumference of a circle and counterclockwise. When at point A, it has centripetal force  $F_{centripetal}$ , permissive force  $F_{orbital}$  and resultant force  $F_x$ .

The period of the orbiting vehicle is T, the circumference is  $2\pi R$ , R = radius of the circle. So, the velocity times the circumference is  $v_p = 2\pi R/T$ .

The permissible velocity at point A is parallel to the diameter DE. On DE and from E to centre O a time of 1/4 of period T will elapse. So the velocity at point O times DE will be,  $R=R_{max}\cos(\omega t)$

$$\Delta R/\Delta t = (A_{max}/\Delta t)\Delta \cos(\omega t)$$

And because  $\Delta t=T/4$ ,

$$v_k = v_{max}\Delta \cos(\omega t) = (4R/T)\Delta \cos(\omega t) \text{ και}$$

$$v_k^2 = v_{max}^2 \Delta^2 \cos^2(\omega t) = v_{max}^2 \Delta^2 \{1 - \sin^2(\omega t)\}$$

και επειδη  $1 - \sin^2(\omega t) = \cos^2(\omega t)$ ,

$$v_k = -v_{max} \Delta \sin(\omega t) = -(4R/T)\sin(\omega \Delta t)$$

$$= -(4R/T)\sin(\omega T/4) = -4R/T$$

This will be equal to  $v_{orbital}$  ( $v_k = v_{orbital}$ ), and  $v_{orbital}$  is the permissible speed at point A.

But  $v_{orbital}$  and velocity on circumference are not equal, so there is a resultant velocity  $v_x$  directed towards the center of the circle, but not exactly.

It is,

$$v_p^2 = v_x^2 + v_{orbital}^2$$

$$\text{και } v_x^2 = v_p^2 - v_{orbital}^2 = (2\pi R/T)^2 - (4R/T)^2$$

then  $v_x = 4.84 R/T$ . It is larger than  $v_{orbital}$  and constantly falls towards the centre of the circle at approximately that speed.

Since the permissible velocity is,  $v_{orbital} = 2\pi R/T$ ,  $T = 2\pi R/v_{orbital}$  then the centripetal velocity is ,

$$a_{centripetal} = 2\pi R/T^2 = v_{orbital}^2 / 2\pi R$$

That is, centripetal acceleration and centripetal force are different by  $2\pi$  in the denominator from what the calculus proved and we have already rejected calculus<sup>1</sup>.

Then, and the permissible acceleration is,

<sup>1</sup> ALEKOS CHARALAMPOPOULOS, OVERTURNING OF INFINITESIMAL CALCULUS AND RESTORATION OF THE MATHEMATICS IN CONNECTION WITH THE COSMIC THEORY "THE IDION" International Journal of Mathematics and Physical Sciences Research, Oct2020-Mar2021

$$a_{\text{orbital}} = -(\Delta v_{\text{max}} / \Delta t)(\sin(\omega t) = \Delta \{ (4R/T) / (T/4) \} \sin(\omega T/4) = 16R / T^2$$

$$= (16/2\pi) a_{\text{centripetal}}$$

That is, a relatively large permissible acceleration and force occurs in the circular smooth motion of a particle.

And there is also a resultant acceleration  $\alpha_x$  or BC in the figure and,

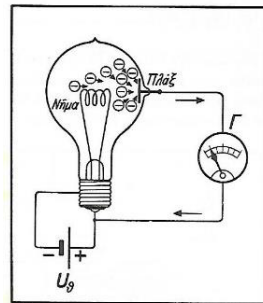
$$\alpha_x^2 = a_{\text{orbital}}^2 - a_{\text{centripetal}}^2 = \{ (16/2\pi) - (1/2\pi) \}^2 a_{\text{centripetal}}$$

$$\alpha_x = (15.5/2\pi) a_{\text{centripetal}}$$

### THE HYDROGEN ATOM AT LOW PRESSURE

We took the spectra of the elements, as well as 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,  $\lambda = \lambda_0 \{ (1/n_f^2) - (1/n_i^2) \}$ , where  $\lambda$  is the wavelength of radiation with initial  $\lambda_0$  wave and  $n_f$  = final level of the electron and  $n_i$  = initial level.

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

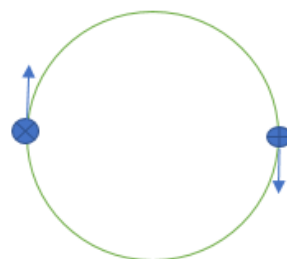


Σχ. 438. "Όταν ή πλάξ συνδέεται, μέσω του ειδικού του γαλβανόμετρου, προς τον θετικόν πόλον πηγής συνεχούς τάσεως, τα ηλεκτρόνια κινούνται εκ του διακόπρου νήματος προς την πλάκα.

He considered that the incandescent filament emits electrons, which make up the observed current. But only photons are emitted in the lamp, which become carriers of the small current. There are no electrons and protons!

Hydrogen is the simplest element, consisting of two smaller "particles", which must be equal and similar in charge and mass, in order for the particle to perform harmoniously the movements and its center of mass. This is a prerequisite for it to happen.

These two particles are bubbles of dilute ether within the surrounding denser. They move in a circle about their center of mass, create a magnetic field B each and electric current I = ef, f = rotation frequency and the interaction of their electric charges with the magnetic field, create the mass of the bubble  $m_b = 1/ 2 kBe^2$ , k= dimensional fixed. The hydrogen atom is a bound photon, with a rotational velocity of the c-particles.



A hydrogen atom with the two bubble-particles rotating around their center of mass at speed c, it is a bound photon.

The radius between the bubbles is r and r/2 their distance from their center of mass. There is one electric attraction due to electric charges that is inverse to the cube of their radius and another, due to the electrical attraction of opposite charges-carriers electrical, such as when parallel currents are attracted conductors. The two forces are equal and that is a prerequisite. The analysis is done in the privileged system of one bubble and the radius between the bubbles is r in the law of inverse cube of radii. And rotational speed c, so the force of attraction,

$$F = \{k d B e^{2/r^3} + \{\mu_0 I_1 I_2 2\pi(r/2)/2 \pi r\} = m_b c^2 / (r/2) = m_p c^2 / r$$

The d is coming from the  $F = m r = m \omega^2 r^4 / r^3$ , είναί  $d = (\omega r^2)^2$ .

#### THE LAW OF ATTRACTION OF WANDERING BODIES

We found the centripetal acceleration to be,  $a_{\text{centripetal}} = 2 \pi R / T^2 = v_{\text{orbital}}^2 / 2 \pi R$ .

The centripetal force is,  $F_{\text{centripetal}} = m 2 \pi R / T^2 = m v_{\text{orbital}}^2 / 2 \pi R$ .

$$F_{\text{centripetal}} = m v_{\text{orbital}}^2 R^2 / 2 \pi R^3 = (\hbar^2 / m) / 2 \pi R^3 = k / 2 \pi R^3.$$

The law of attraction of rotating electrical opposite particles, or gravitational masses, is inverse to the cubic force of their radius. This is open to strict use of mathematics in conjunction with the principle of conservation of angular momentum, or equal velocity area, of rotating bodies.

#### SPHERE AREA AND VOLUME

In a circle, it centers on a point with zero dimensions and a circumference of dimensions  $2 \pi R$ . The average of the two dimensions is  $Z = (2 \pi R + 0) / 2 = \pi R$ . The radius is  $R$ , so the area of the circle is,  $S_{\text{circle}} = (\pi R) R = \pi R^2$ .

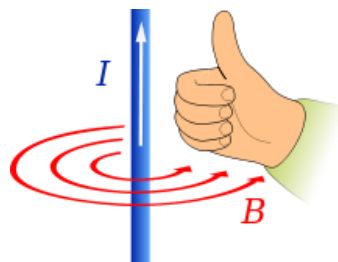
The average of the circle is  $\pi R$ , but of an equal circle intersecting with the first is,  $S_{\text{circle}} = \pi R^2$ , so the area of the sphere is,

$$S_{\text{sphere}} = (\pi R)(\pi R) = \pi^2 R^2$$

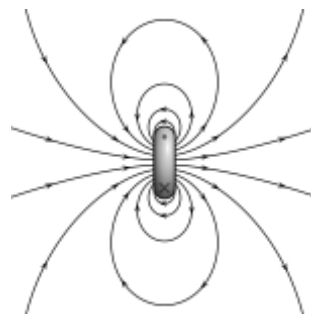
And the area of the sphere?, multiplied by the radius of the circle, gives us the volume of the sphere, that is,  $V_{\text{sphere}} = (\pi^2 R^2)(R) = \pi^2 R^3$

#### THE MAGNETIC FIELDS OF THE HYDROGEN ATOM

The magnetic field of a straight conductor is  $B_p = \mu_0 I / 2 \pi r$



The magnetic field at the center of a circular current conductor is  $B_c = \mu_0 2 \pi I / 2 \pi r = \mu_0 I / r$ .



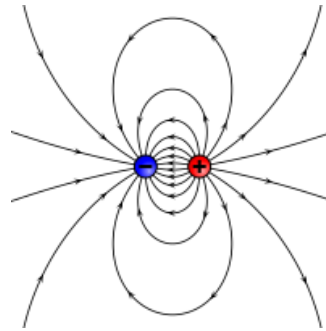
The magnetic field at the centre of the hydrogen atom will be the sum of one rotating charge in a circle of radius  $r$  with respect to the other, both having phase difference  $\pi$ , i.e. both,

$$B_p = \mu_0 2 I / 2 \pi r = \mu_0 I / \pi r.$$

But each moving charge has a magnetic field and affects the other, and the magnetic field of the two is,

$$B_c = 2 \mu_0 I / 2 \pi R = \mu_0 I / \pi R$$

and  $R = 2 r$  = distance (radius) of the two charges, orbiting in a circle of radius  $r$ , opposite each other.



Influence of one magnetic field on the other particle

### THE HYDROGEN ATOM

In measuring systems, many measures are arbitrary. In System International, one measure of distance, unit of force and mass, time, electric current, are arbitrary. This means that one does not imply the other, since they do not arise from logical sequence. Here we will find the logical system of units, with only acceptance of length in meters, as in System International.

We have accepted Balmer's formula as explaining the spectrum of the hydrogen atom. Thus,  $1/\lambda = (1/\lambda_0) \{ (1/n_f^2) - (1/n_i^2) \}$ , is the formula and  $\lambda_0 = c/f_0 = 91.1 \text{ nm}$ .

$\lambda_0$  is the wave that wraps the hydrogen atom, which for stability reasons has two equally smaller particles, equal and opposite electric charges. The two particles orbit in a circle opposite each other with the same frequency  $f$  and because they are located opposite orbiting, they have a phase difference, and have an opposite charge; The two particles are bubbles of thinner ether with granules inside. The granules hit the rubber crust, like gas, and a bulge is formed that propagates in the surrounding ether and is the propagation of ether pressure, the electric field dynamic lines of the charge. The encounter of the two orbiting particles of dynamic lines becomes the cause of gravity.

If we assume  $e$  the electric charge, according to what we have exposed, the force of attraction of the rotating opposite electric particles is  $F = e^2 / 2\pi R^3$ . and  $R =$  distance (radius) of the two charges, circling within radius  $r$  about the centre of mass ( $R=2r$ ). Then, because the mass of one particle is the result of the influence of two electric charges and the electric charge of one particle is within the magnetic field  $B_p$  that forms the moving charge of the other particle ( $m_p = kB_p e^2$ ), then since  $k =$  constant .

At the same time, each charge forms an electric current  $I = ef$ ,  $f =$  frequency of rotation around the center of mass, and because the two currents are opposites, an electric attraction of parallel opposite conductors develops, so that,

$$F_k = \mu_0 I^2 L / 2\pi R = \mu_0 I^2 2\pi r / 2\pi R = \mu_0 I^2 / 2\pi \kappa \alpha,$$

$$F = \frac{e^2}{2\pi R^3} + \frac{\mu_0 I^2}{2} = kB_p e^2 \frac{v^2}{2\pi r} = kB_p e^2 \frac{d^2}{2\pi r^3}$$

And  $d = vr$ .

But  $\lambda_0 = 2\pi r$ , and  $r = 1.45 \times 10^{-8} \text{ met}$ . This is the fundamental radius of the hydrogen atom, when it is at a pressure of 0.008 bar and gives its spectrum to an electrical discharge of the tube containing it.

For the equation to have a solution, it is required,  $\frac{e^2}{2\pi R^3} = \frac{\mu_0 I^2}{2}$ .

### FIND ATOMIC SIZES

Then it is,

$$F = \frac{2e^2}{2\pi R^3} = kB_c e^2 \frac{v^2}{2\pi r} = kB_c e^2 \frac{d^2}{2\pi r^3} \text{ and,}$$

$$d^2 = (1/4kB_c)$$

But  $d = vr = \omega r^2$ , then,

$$\omega = 1 / \{ (4kB_c)^{1/2} r^2 \} = 2.37 \times 10^{15} (1/kB_c)^{1/2} \text{ rad/sec}_A$$

and,

$$f = \omega / 2\pi = 3.78 \times 10^{14} (1/kB_c)^{1/2} \text{ Hz}_A$$

The index A, means that the unit of time and frequency is the consistent unit measurement system of the atom with respect to the unit of measurement of distance met.

But for the atom's measurement system to be consistent, the electric current  $I=ef=1 \text{ Amp}_A$  must also be consistent. So,  $e=2.64 \times 10^{-15} (\text{kB}_c)^{1/2} \text{ Cb}_A$ .

$$\text{To } B_p = \mu_0 I / 2\pi R \text{ και, } e = 2.64 \times 10^{-15} (\mu_0 I / \pi r)^{1/2} \text{ Cb}_A.$$

It is,  $d^2 = (1/4 \text{ kB}_c)$  and,  $d = \omega r^2$ , then the circling velocity in Hydrogen atom is,  $c = \omega r = 34.36 \times 10^6 (1/\text{kB}_c)^{1/2} \text{ met/sec}_{\text{Has}}$

And, 
$$cr = 0.5 (1/\text{kB}_c)^{1/2} \text{ met}^2/\text{sec}_A.$$

It is,  $c = f\lambda_0 = 4.2 \times 10^{16} (1/\text{kB}_c) 91.1 \times 10^{-9}$ . But, it is counted the velocity of light in the System International and it is  $c = 3 \times 10^8 \text{ met/sec} = 34.36 \times 10^6 (1/\text{kB}_c)^{1/2} \text{ met/sec}_A$ . Then,

$$\text{sec}_A = 0.114 (1/\text{kB}_c) \text{ sec}.$$

The mass of the one particle is,  $m_p = \text{kB}_c e^2 = 6.96 \times 10^{-3} \text{ k}^2 \text{ B}_c^2$ .

The magnetic moment of a hydrogen particle is,

$$\mu = I\pi r^2 = 6.605 \times 10^{-16}.$$

The magnetic moment multiplied by the magnetic field at the center of the atom ( $B_c = \mu_0 I / 2\pi r = \mu_0 I / \pi r$ ), which has one rotating charge, is magnetic energy

$$E_m = \mu B_c$$

This is equal to the electric potential energy,  $E_d = e^2 / 2\pi R^2 = e^2 / 8\pi r^2 = m\mu_0 I / \pi r$  then,

$$\mu_0 = e^2 / 8rm = 9.1 \times 10^{-9} \text{ kB}_c.$$

$$\text{Είναί, } e = 2.64 \times 10^{-15} (\mu_0 I / \pi r)^{1/2} \text{ Cb}_A = e = 2.64 \times 10^{-15} \{k(e^2 / 8r\mu) (I / \pi r)\}^{1/2} \text{ Cb}_A$$

$$k^{1/2} = 2,5$$

$$k = 2\pi = 6,24$$

We know that the rotational speed is,  $c = \omega r = 34.36 \times 10^6 (1/\text{kB}_c)^{1/2} \text{ met/sec}_A$ . This is equal to the quotient of the electric field E of one charge multiplied by the other by the magnetic field  $B_p$  acting perpendicular to the electric charge on the other charge, i.e.

$$c = E/B_p = (e/2\pi R^3) / B_p = 17.2 \times 10^6 (B_c^{1/2} / B_p) = (34.85 \times 10^6 / B_c^{1/2}) \text{ mand/sec}_A$$

#### THE FINAL ATOMIC QUANTITIES

And because  $e = 2.64 \times 10^{-15} (\text{kB}_c)^{1/2} \text{ Cb}_A$ , and  $k^{1/2} = 2,5$  then,

$$e = 6,61 \times 10^{-15} \text{ B}_c^{1/2}$$

$$f = 1.51 \times 10^{14} / \text{B}_c^{1/2}$$

$$\omega = 9,5 \times 10^{14} / \text{B}_c^{1/2}$$

$$c = \omega r = 13.778 \times 10^6 / \text{B}_c^{1/2}$$

It is the velocity of the rotating particle the quotient of the electric field exerted by one particle on the other, divided by the magnetic field that creates one and affects the other.

$$c = E/B_p = (e/2\pi R^3) / B_p = 0.5 \times 68.9 \times 10^6 \text{ B}_c^{1/2} / B_p =$$

$$c = (34.45 \times 10^6 / B_p) = 13.778 \times 10^6 / \text{B}_c^{1/2}$$

because  $B_p / B_c = 2\pi$

$$B_p = 1 \text{ T}_A, \text{ B}_c = 0.159 \text{ T}_A$$

$$B_c = 1/k$$

So it is, as we would expect,  $k = 1/B_c$ , and,

$$c = 34.45 \times 10^6 \text{ met/sec}_A$$

$$e=2.63 \times 10^{-15} \text{ Cb}_A$$

$$f=3.79 \times 10^{14} \text{ of}_A$$

$$\omega=2.38 \times 10^{15} \text{ rad/sec}_A$$

$$m_p=6.96 \times 10^{-30} \text{ kgr}_A$$

$$\hbar=3.47 \times 10^{-30}$$

$$h=2.2 \times 10^{-29}$$

$$E=m_p c^2=8.2 \times 10^{-15} = 1/2 m_H c^2$$

$m_H$ = mass of hydrogen atom.

#### ELECTRICAL VOLTAGE AND POWER

Between the two charges of the atom, an electric voltage  $V$  develops,

$$V = e/2 \pi R^2 = e/8\pi r^2 = 0.5 \text{ Volt}_A$$

Power  $P$  is consumed,

$$P = VI = 0.5 \times 1 \text{ Volt}_A \text{ Amp}_A = 0.5 \text{ Watt}_A$$

This electrical power is provided by Zero (God, ultimate higher reality) which is something and immaterial, just as immaterial is energy and power. The energies, kinetic, dynamic, thermal, magnetic, electric, are within Zero.

#### RELATIONSHIP OF ATOMIC AND INDIVIDUAL MEASUREMENT SYSTEMS AND THE SYSTEM INTERNATIONAL

The ionization of the hydrogen atom is achieved at an electrical voltage  $V=13.56 \text{ Volt}$ .

$\epsilon\tau\sigma$ ,  $0.5 \text{ volts}_a = 13.56 \text{ volts}$ ,  $\kappa\alpha$ ,

$$\text{volt}_a = 27.12$$

And the atom has power,  $P=27.12 \text{ Volts}$ .  $I_A=27.12 \text{ Watt}$ .  $I_A/I$

$$I_A/I = 0.5 \text{ Watt}_A/\text{Watt} = 0.5/27.12$$

$$I_A = 0.0184 \text{ I}$$

$$\text{Cb}_A = I_A \text{ sec}_A = 2.098 \times 10^{-3} \text{ Cb}$$

$$\text{Watt}_A = \text{Volt}_A \cdot I_A = 0.5 \text{ Watt}$$

It is reported that,

$$\text{sec}_A = 0.114 (1/kB_c) \text{ sec} = 0.114 \text{ sec}$$

And,

$$\text{Hz}_A = 8.77 \text{ Hz}$$

Also, the particle has energy  $E = P \cdot \text{sec}_A = 3.09 \text{ Joule}$ .  $I_A/I$

$$\text{Watt}_A = \text{kgr}_A \text{ met}^2/\text{sec}_A^2, \text{ Watt} = \text{kgr} \cdot \text{met}^2/\text{sec}^2, \text{ kgr}_A/\text{kgr} = 0.5 \text{ sec}_A^2/\text{sec}^2 = 0.0065$$

#### PROPULSION FORCE AND RESISTANCE FORCE OF ETHER

As mentioned, the rotating particle of hydrogen in a circular path has approximately a velocity of decline towards its center of mass, the

$$v_x = 4.84 \text{ R/T} = (4.84/2\pi) v_{\text{orbital}} = 0.77 v_{\text{orbital}}$$

and the person examined,  $v_{\text{orbital}} = c = 34.45 \times 10^6 \text{ met/sec}_A$ , so  $v_x = 26.53 \times 10^6 \text{ met/sec}_A$ , for the individual. It is,  $e=2.63 \times 10^{-15} \text{ Cb}_A$ ,  $B_c = 0.159 \text{ T}_A$ , so a propulsion force is developed from one particle to another, propulsion towards the circular path,

$$F = e v_x B_p = 6.9 \times 10^{-8} \text{ Nt}_A$$

This force results from the vertical drop of the magnetic field, which comes from the movement of the other particle and because the particle has a velocity of decline towards the center of the circle and is charged.

In the analysis of body accelerations circling circularly, we found acceleration

$$a_{\text{orbital}} = (16/2\pi) a_{\text{centripetal}} = 2,546 v_{\text{orbital}}^2 / 2\pi R = 9,83 \times 10^{21} \text{ met/sec}^2$$

And the particle has,  $m_p = 6.96 \times 10^{-30} \text{ kgr}_A$ , so,

$$F = m_p a_{\text{centripetal}} = 6.84 \times 10^{-8} \text{ Nt}_A$$

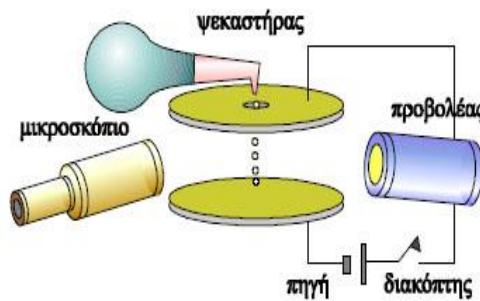
This is the propulsion force of the particle, which meets the resistance of the ether

$$F_A = bc = F = m_p a_{\text{centripetal}}$$

Και,  $b = 2.6 \times 10^{-15}$ .

As it approaches the surface of the bubble particle of the hydrogen atom, the ether becomes denser and b.

#### WHAT THE MILLIKAN EXPERIMENT SHOWS



As in the figure above, Millikan poured oil droplets coming from a bellows into a capacitor. He observed under a microscope and illuminated the oil drops with a spotlight. These fell into the capacitor at a speed  $v = 0.000286 \text{ met/sec}$ .

The drops due to friction were electrically charged and applied an electric field, in a direction opposite to the fall. It took different climb speeds and assumed that the drops had a different electrical charge. The lowest velocity of ascent (with the lowest electric charge) was  $v_A = 0.00013 \text{ met/sec}$ . The drops fell into the capacitor, into an atmosphere of pressure.

From classical mechanics, <sup>2</sup>we know that a body in the air falls with force  $F = mg$  and receives the resistance of air,  $F_{\text{air}} = 1/2 C \cdot \rho \cdot S \cdot v^2$  and  $\rho = 1,29 \text{ Kgr/met}^3$  density of air,  $S$  = surface area of the body falling into the air,  $v$  = the falling velocity and  $C$  is a coefficient of resistance, which for sphere-shaped bodies is  $C = 2$ .

If we assume that the oil drops of mass  $m$  had a spherical shape, then it is true,

$$F = F_{\text{air}} = \rho S v^2 = mg$$

At the drop of the drop, but because it accepts resistance of the ether, the equation is,

$$F = F_{\text{air}} - F_{\text{other}} = \rho S v^2 + b v = mg$$

$$F_{\text{other}} = -b v.$$

When electrical voltage was applied to the capacitor, there was an electric field  $E = V/L$ , ( $L$ =capacitor armature distance), which had an upward direction and raised the charged electrical drop, then,

$$\rho S v^2 + b v_A + mg = e(-E) = -eV/L$$

If we add to the first the second, it emerges,

$$\rho S (v^2 + v_A^2) - b(v + v_A) = -eV/L$$

The front of the drop has an area  $S = \pi r^2$ .

<sup>2</sup> PHYSICS Alkinoos Mass, Volume 1, p.p. 378-382



The density of the oil is,  $\rho_{oil}=858\text{kg}/\text{met}^3$ . The density of the drop is,  $\rho_{oil}=m/\text{Vol}_{drop}$ ,  $\text{Vol}_{drop}=m/\rho_{oil}$ .

So the equation becomes,

$$\pi r^2 \times 1.29 \times (0.000286^2 + 0.00013^2) - 4.16 \times 10^{-4} b = eV/L$$

We consider  $e=2,64 \times 10^{-15} \text{Cb}_A$  to be the elementary charge, since the rate of charge rise in the capacitor is the lowest  $v=0.00013 \text{met}/\text{sec}$ .

Βρήκαμε  $\text{Cb}_A = I_A \text{sec}_A = 2.098 \times 10^{-3} \text{Cb}$ , οπότε,

$$e = 5.53 \times 10^{-18} \text{Cb}$$

In the experiment the electric field E in the capacitor was  $E = 5.84 \times 10^5$ , so

$$eE = eV/L = 5.26 \times 10^{-7} r^2 = 3.23 \times 10^{-12}$$

$$4 \times 10^{-7} r^2 - 3.23 \times 10^{-12} = 4.16 \times 10^{-4} b$$

and  $b = 10^{-3} r^2 - 7.76 \times 10^{-6}$ ,  $r^2 = 1000b + 7.76 \times 10^{-6}$

$$R = 31(B + 7.76 \times 10^{-9})^{1/2}$$

We found ether to be on the order of  $b = 2.6 \times 10^{-15}$ , so  $r = 0.0027 \text{met}$

Then the oil drop has a mass  $m = \rho_{oil} \text{Vol} = 1.72 \times 10^{-4} \text{kgr} = 0.172 \text{gr}$ .

We note that we determined the radius of the oil drop sphere, at  $r = 2.7 \text{mm}$ , while Millikan estimated it at about  $10^{-6} \text{met}$ . If the beam were the one Millikan calculated, and because the visible light of the projector that he threw at the capacitor and saw the bright "stars", due to the fact that the wavelength of visible light is in the range of  $10^{-6} \text{met}$ , the drops would not be visible! The light of the projector would be diffraction!

The mass of the particle is,  $m_p = 6.96 \times 10^{-30} \text{kgr}$ , and  $\text{kgr}_A/\text{kgr} = 0.0065$ , then it is,

$$m_p = 4.5 \times 10^{-32} \text{kgr}$$

and atom,  $m_H = 9 \times 10^{-32} \text{kgr}$ .

### 3. SUMMARY

We found the centripetal force to apply to atomic physics, which is very different from the accepted physics. We found the speeds and accelerations hidden in a circular smooth motion. We have formulated some of why atomic physics has been misformulated, and we have proved the area and volume of a sphere other than the existing ones.

We set principles, like the ancient Greek philosophers, to formulate the theory.

We formulated the two different magnetic fields, producing a circularly rotating charge.

We found a consistent system of units required by atomic theory and showed that System International is inconsistent.

We have formulated the existence of the ether. An ether with low viscosity does not contradict the Mickelson-Morley experiment and much more, it does not contradict the geocentric system of the universe, where the earth is almost stationary.

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