

Generator with Energy Conversion and Anti-Gravity-Effects

An Experimental Investigation of the Physical Effects in a Dynamic Magnetic System

We have experimentally studied the physical effects in a system based on rotating permanent magnets. It is demonstrated that a magnetic system made of rare-earth magnets (REMs) is capable of converting various forms of the energy, provided that certain critical operating regime is set.

The generator comprises an immobile stator and a rotor moving around the stator and carrying fixed magnetic rollers. The magnetic system of the working body of the generator has a diameter of about 1 m. The stator and magnetic rollers were manufactured from separate magnetized segments made of REMs with a residual magnetization of 0,85 T, a coercive force of $[H_c] \sim 600$ kA/m and a specific magnetic energy of $[W] \sim 150$ J/m³. The stator incorporated REMs with a total weight of 110 kg and the rollers contained 115 kg of the same REM material.

On attaining the critical regime (~ 550 rpm), the rotor exhibited a sharp increase in the rotation speed; this was accompanied by a slow-down in the rate of the current weight variation. The system weight variations depend both on the power consumed by the active load and on the polarization voltage applied. For a maximum output power (7 kW), a change in the total platform weight reached 35% of the initial value in the immobile state (350 kg). The platform weight could be controlled by applying a high-voltage signal to the cellular ring electrodes situated 10 mm above the external roller surface. The effect of the system weight variation is reversible with respect to the direction of rotor motion and exhibits certain hysteresis within 50-60 rpm.

Besides the phenomena described above, a number of other interesting effects were observed in the system studied. In particular, the generation operation in the dark is accompanied by a corona discharge with a pinky-blue light emission and by the ozone production.

One more effect, which was never reported previously, is the appearance of vertical "magnetic walls" around the generator. The measurements revealed zones of increased magnetic field strength on the order of 0.05 T arranged coaxially relative to the system center. The layers of increased magnetic field strength are propagating with virtually no attenuation to a distance of 15 m from the converter center and then rapidly decayed at the boundary of this 15-m-area. Each layer zone is 5-8 cm thick and exhibits sharp boundaries; the layers are spaced by 50-60 cm.

Another interesting phenomenon consists in an anomalous temperature drop in the immediate vicinity of the generator. At a general room temperature level in the laboratory ($+22 \pm 2^\circ\text{C}$), the temperature at the generator surface was $6-8^\circ\text{C}$ lower. Similar temperature variations were detected in the vertical magnetic "walls". The same pattern was observed at a height of 5 m above the setup in a second-floor room above the laboratory (despite the steel-reinforced concrete blocks separating the rooms).



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1. Introduction

We have experimentally studied the physical effects in a system based on rotating permanent magnets [1]. Starting from our own theoretical thoughts, accessible technology and financing, the essential corrective amendments were brought in the basic design of the device.

Received effects:

- Generation of mechanical energy in self-governing mode of operations;
- Change of weight of the generator;
- Formation of a local magnetic and temperature fields as concentric cylinders around generator.

These effects according with our opinion are connected with a manifestation of the gyromagnetic resonance in rare-earth magnets therefore we will give here short description of mechanism of nonlinear interactions in atomic ensemble of a working body of the generator.

A corner stone of the modern physics is a problem of occurrence of internal energy of elementary particles. Whence does it arise? What is the reason of eternal movement? What does make our world by similarity "of the Perpetum Mobile"? In this paper we will try to answer some of these questions. To answer on them it is necessary to consider in brief what we name by a positive and negative charge. From what magnetic and electrical field consist? From what elementary particles consist?

It is necessary to tell that our space-time continuum is incorporated in uniform global system with a common power balance. In our world process of a common power balance (i.e. the law of energy preservation) have implementing by means of quantum singularity (QS), being a basis of such objects as a black and white holes [2,3,4]. At a microlevel QS topologically is connected to nucleuses (of centers) of elementary particles and are creating microwhite holes (MWH sources) at the formation of positive elementary charge and microblack holes (MBH drains) at the formation of negative elementary charge. The space of fluctuations of MWH and NMH is limited by sizes of its own space of the order 10^{-18} m . *This is the area of formation of a charge* and in an excited condition represents the channel of a power exchange in phase space of the conjugated worlds.

Expansion and compression of the quantum holes translate energy of the conjugated world in our space through area of ring singularity of the quantum hole. In the conjugated world our microwhite hole is a microblack hole accordingly, in which at its excitation the substance – sub-elementary particles is soaked up. Passing through area of singularity, sub-particle are transformed to thin energy and are formed already from our party into elementary particles - plankeons (PL) with characteristic radius of $r = 10^{-35}$ m. The same occurs and from our side. Our plankeons are soaked into our microblack holes and are moving as a thin energy into the conjugated world.

Thus quantum holes, at the moment of excitation of appropriate quantum of space, represent the simple pump carrying out retranslating of energy (as subparticles) between the conjugated worlds. It is as was already spoken, provides a common power balance of whole system. Nevertheless, during gravitational polarization of atomic structure (see lower) the conditions for local infringement of power balance are created. This situation is connected to internal processes in the field of singularity ring of microholes inside of elementary particles and we will not to discuss this here. The result of this process can be expressed in a local change of the mass expenditure of the plankeons through a quantum singularity of the elementary particles. It leads to intensification of a complete Spectrum of inner atomic interactions and creating of a new macro effects as an unknown radiation, which caused abnormal magnetic and thermal fields around converter.



Mr. Godin explains a variant of his one-ring converter

2. The nature of occurrence of single charge. Subparticles.

Now let's begin consideration of a 'charge' concept. For understanding of the nature of an elementary charge it is necessary to analyze process of interaction of objects with radius about 10-18m, for example of particles, that we will name subelectron Se and subproton Sp, with quantum of space. Let's assume that each quantum of space corresponds to one's own elementary particle. Quantum of spaces does not exist isolated and is arises simultaneously with elementary particle which stimulated it or with its corresponding pulse-vector of spatial dislocation.

In this paper we will tell only that subelectron has a complex multilevel structure with a central nucleus as a quantum analogue of a pulsing black hole (or white hole in a case of subproton).

As already it was marked, the pulsing microwhite hole is a re- translator of energy between the adjacent worlds and actually is a source of energy for all elementary particles and accordingly micro- and macro-objects Fig. 1.

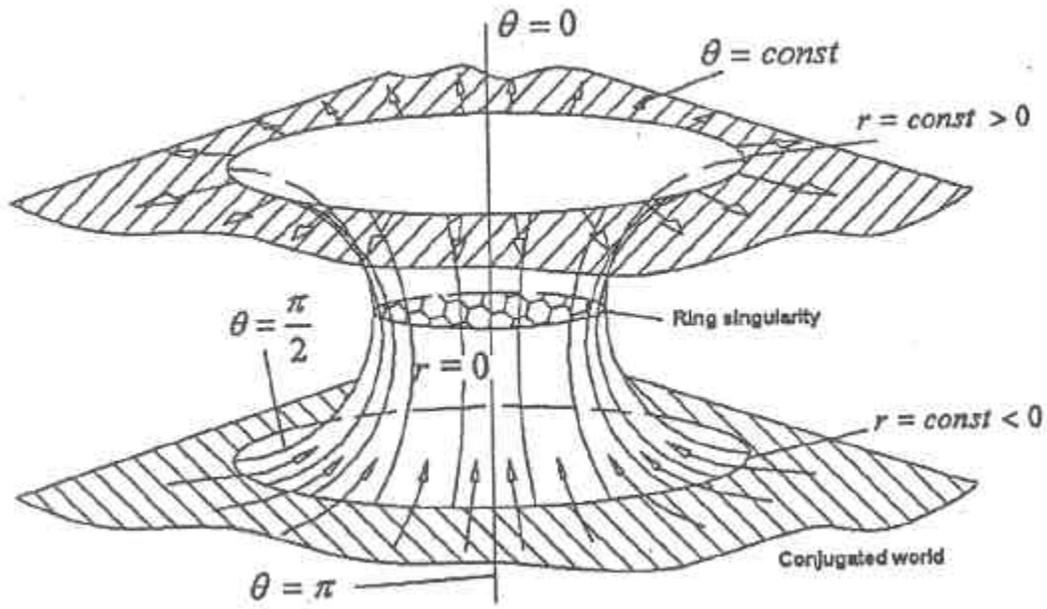


Fig 1. Micro B/W holes as Energy retranslators.

For the beginning we will conditionally divide space by the discrete-elements, which correspond to the size of 10 - 18 m and we will put there an isolated subproton SP Fig.2.

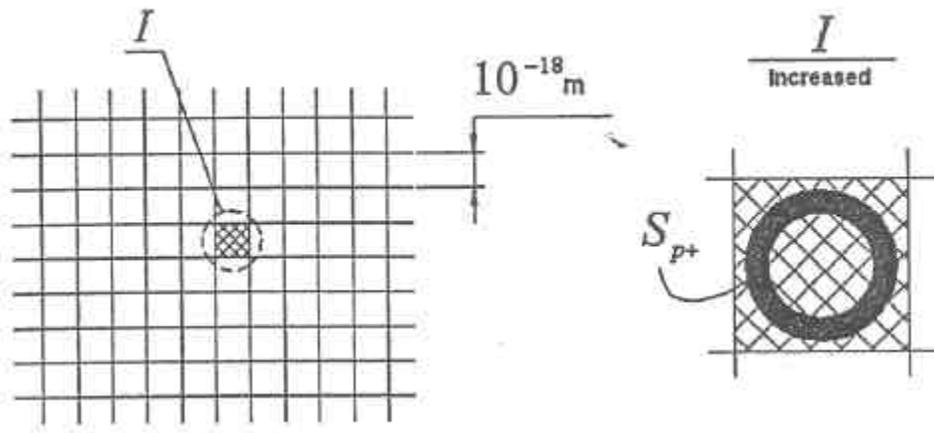


Fig 2. The discrete elements of space-time

This subproton being in quantum of space during a certain interval of time, by one's own nucleus causes a pulsation of a microwhite hole that is topologically connected with this point of space. The pulsation of a nucleus of a microwhite hole creates plankeons of the 'right' rotation, which are distributed sphero-symmetrically in own phase space space Fig.3.

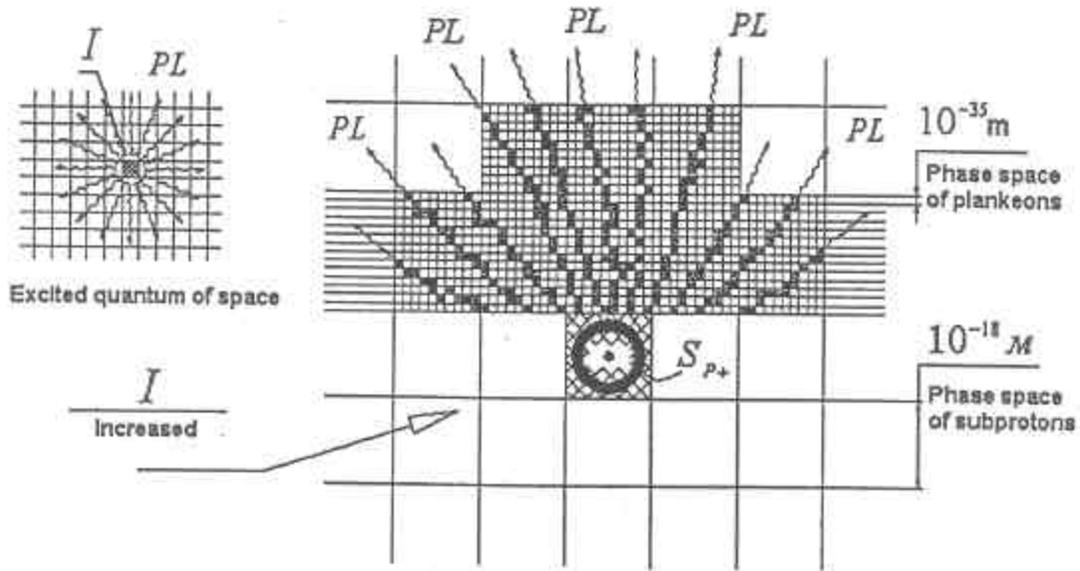


Fig 3. Plankeon Creation

Let's consider in more detail movement of plankeon PL after its radiation by excited quantum of space. Leaving gravitational radius of a microwhite hole, the particle is moving in a 'free' space on a helical trajectory. This movement forms vortical tube similar to whirlwinds in superfluid helium. In our laboratory space they are perceived as a line of an electrical field or as the Faraday's tubes of force Fig.4.

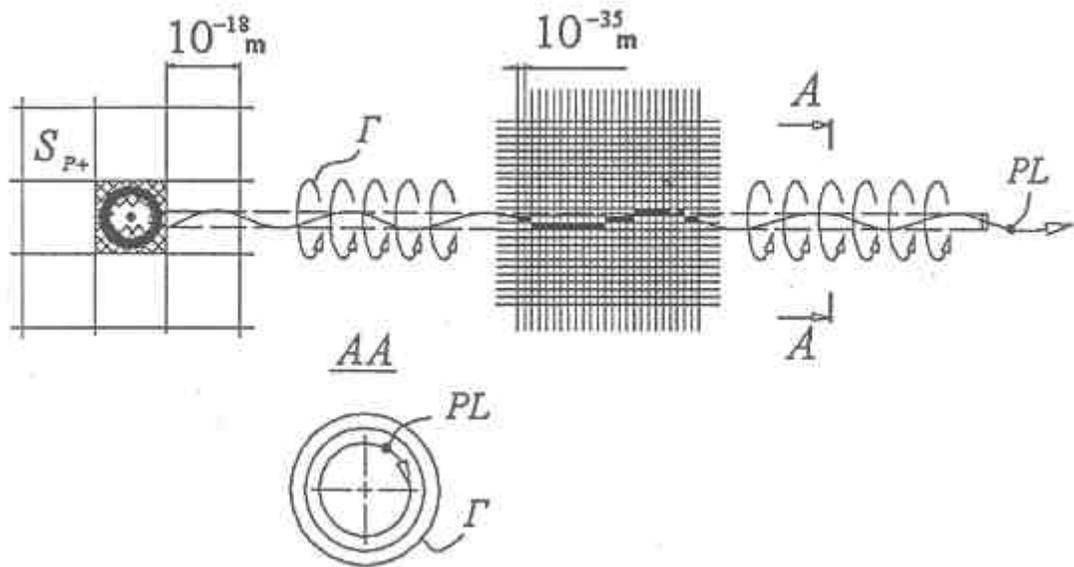


Fig 4. The tube of the Faraday's electrical force

Thus the elementary charge is not a property of the electron and is not its internal characteristic. The formation of 'charge' occurs much deeper in scales of $10 - 18$ m, as a result of interaction of internal structure of subelectron Se or subproton Sp with space-time of the conjugated world through singularity of quantum holes. At present, the modern laboratory tools are not capable to find out really 'individual' charge connected to phase space of subparticles. The perfect equipment is capable to distinguish only collective process of consecutive excitation of space quantum by subparticles at their movement on orbits of elementary particles.

3. The nature of magnetic field.

The various processes of interaction of elementary particles including processes of excitation of space-time quantum, plankeons radiation and formation of 'charged' vortical tubes will be described below. It is necessary to note that these processes occur on a background of other phenomenon having the same nature but occurring in the other phase space. This phenomenon on a macro-level is arising as a magnetic field. We will give this phenomenon some attention.

The subparticles in one's own phase space form charged vortical structures, which are included into the elementary particles, which has moving in a space of plankeons in a superfluid incompressible media. This movement is similar the movement of a steel ball in a liquid. Now take into consideration here two pictures of movements: relative Fig.5 and absolute Fig.6.

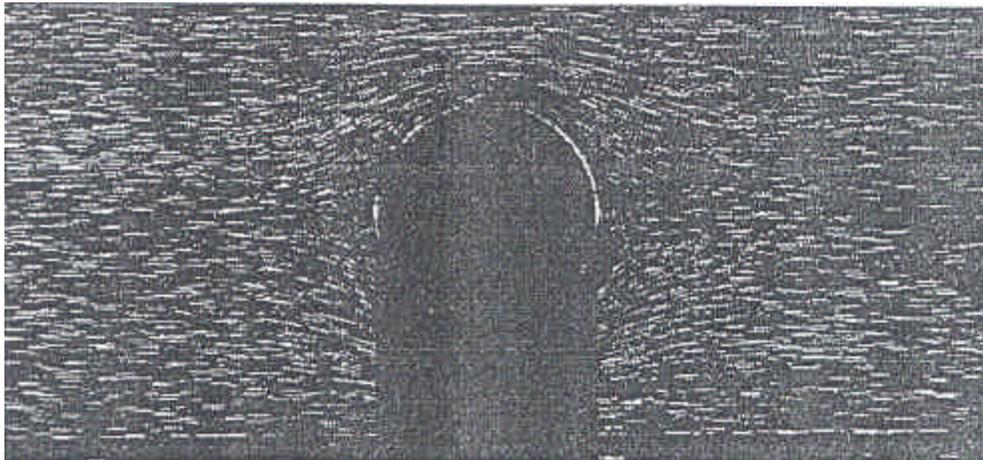


Fig 5. The camera has the same speed as the ball

On this photo [5] the ball moving in a pipe at $Re = 0.10$ is represented. The sphere freely falls with a constant speed along an axis of a pipe having twice-greater diameter and glycerin filled. The camera has a move with the same speed as a sphere to do a picture of structure of relative flowing.

As against of a snapshot on Fig.5, the camera on a snapshot Fig.6 remains motionless with respect to liquid, removed from a ball.

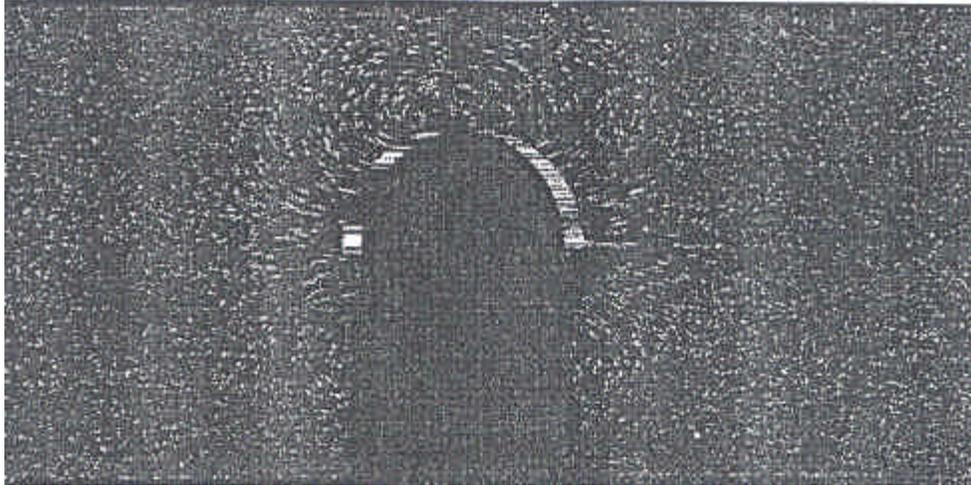


Fig.6. The photo camera remains motionless rather the liquid around a ball.

The pictures of relative movement are well known to all of us. This position of supervision will not be interesting for us here. It is offered to consider in detail a second snapshot - the picture of absolute moving represented on Fig.6. There are lines of the particles current of a liquid interacting with moving sphere. In case of superfluid incompressible liquid the picture of these lines will represent by one's own a classical dipole Fig.7, and in a context of our model these lines are formed as a result of plankeons movement in their own phase space-time.

As we already have found out above, proceeding from internal parameters, plankeons have moves in space by spiral trajectories forming vortical tubes with external circulation of speed. Thus, examining a picture of vortical fields around of moving particle we come to G. Stokes theorem about circulation of speed on a closed contour Fig.8.

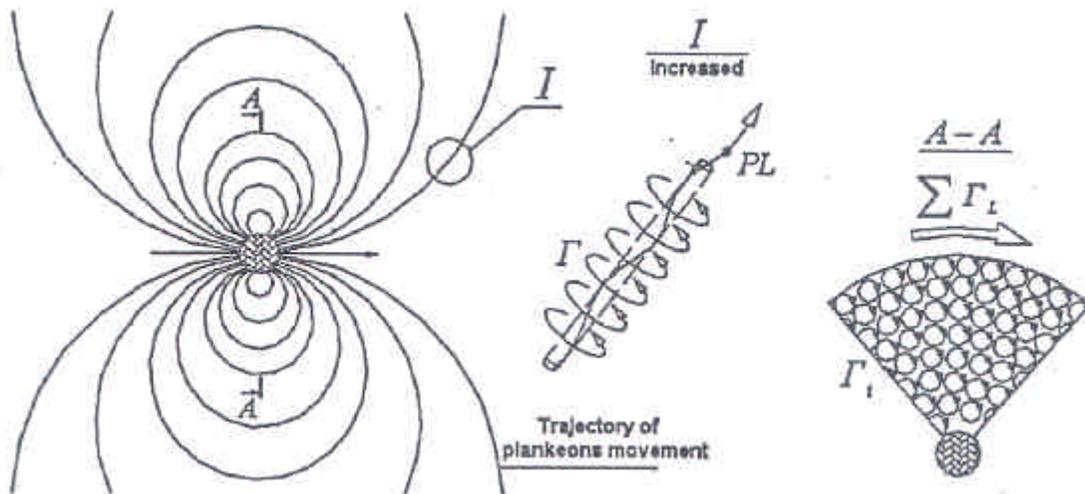
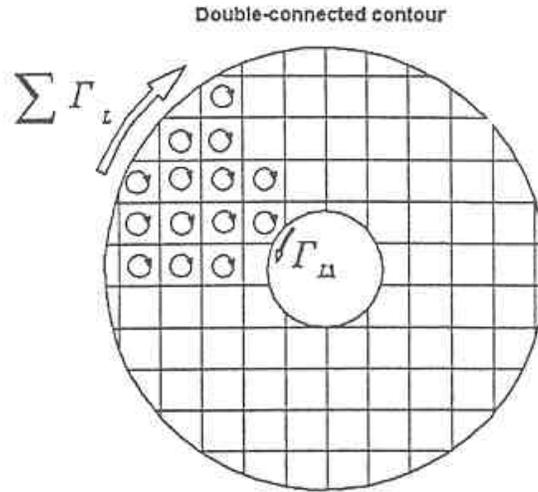


Fig.7, Fig.8. The vortical fields around of moving particle and speed circulation around a closed contour.

For a two-connected contour is received an equality:

$$\Gamma_L = 2 \int_{(S)} \omega_n dS + \Gamma_{L1} \quad (1)$$

where Γ_L - circulation of speed on a contour L , ω - vector of angular speed of a vortical tube. Thus, this general vortical picture caused by total circulation of speed also is perceived in our laboratory space as a magnetic field.



4. Structure and internal dynamics of an electron and of a proton.

Further it is necessary to consider a planetary model of electron (positron) and, proton. An electron on Fig.9 in our model is examined as a compound particle with external radius of $r_e = 2,8 \cdot 10^{-15} m$ and internal nucleus radius of $r_{nuci e^-} = 1,54 \cdot 10^{-18} m$

On an orbit with radius of $r_e = 2,8 \cdot 10^{-15} m$ around of a nucleus steady particle S_e with radius of $r_{S_e} = 1,5 \cdot 10^{-18} m$ is moving. Subelectron creates an orbital ring current forming a plane of its own orbit. The plane of ecliptic of a ring current S_e is precessing constantly in a space around of electron nucleus Fig. 10.

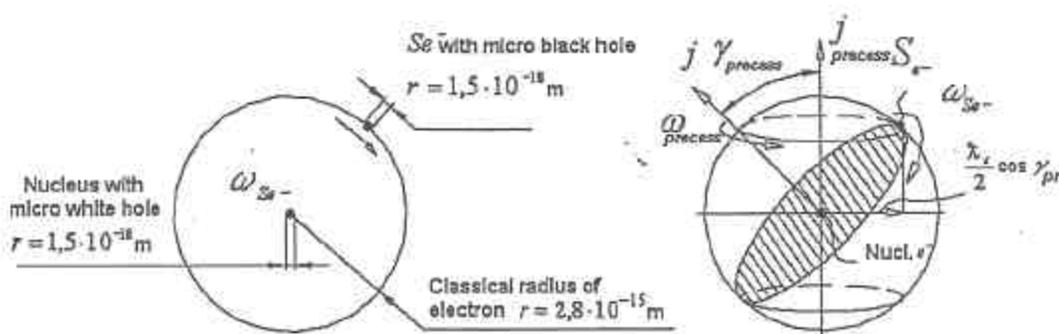


Fig. 9, Fig. 10. Complex structure of electron and its precession around nucleus.

The proton on Fig. 11 in our model is considered as a compound particle with external radius $r_e = 2,8 \cdot 10^{-15} m$ that is actually an external radius of electron. It is a radius of electron-positron shell of the proton. Inside this neutral shell, there are a proton having external radius of $r_{p+} = 2,1 \cdot 10^{-16} m$ and an internal nucleus with radius of

$r_{nuci e^-} = 1,54 \cdot 10^{-18} m$, topologically conterminous with a nucleus of electron-positron shell. The steady particle S_{p+} with radius of $r_{S_{p+}} = 1,5 \cdot 10^{-18} m$ is moving along an orbit with radius of $r_{p+} = 2,1 \cdot 10^{-16} m$ around of the incorporated nucleus. The subproton creates an orbital ring current forming a plane of its own orbit. The ecliptic plane of a ring current S_{p+} is precessing constantly in a space around of the nucleus Fig. 11.

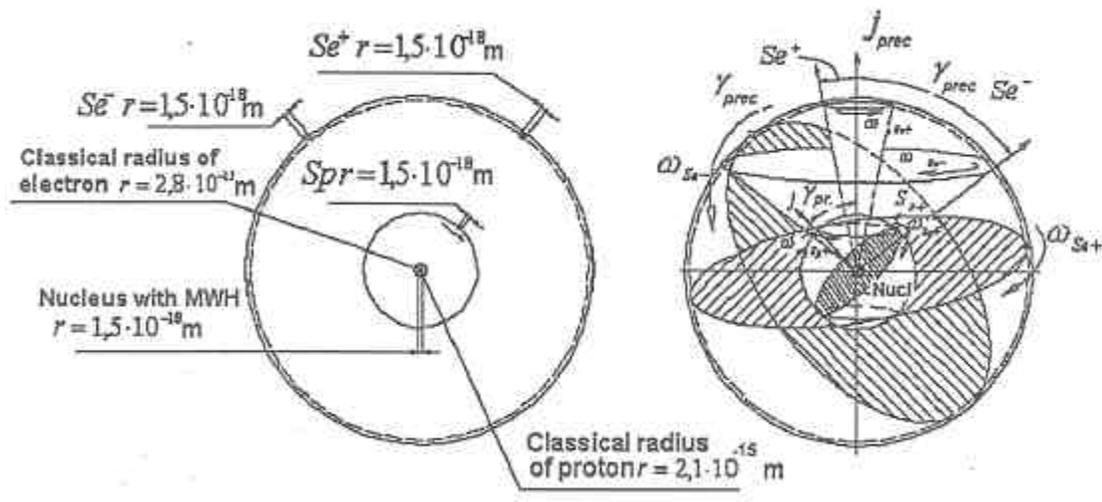


Fig. 11. The complex structure of proton.

5. Concept of collective charge. Formation of e^- and p charges.

Here we approach to the moment, when within the framework of our model it is possible to describe a nature of occurrence of an elementary charge of electron. Subelectron moving on an electron orbit consistently raises quanta of space-time through which a plankeons are radiated, forming vortical tubes in own phase space. The nucleolus of electron forms almost the same vortical structures. The vortical pipes of subelectron and nucleuses form a joined vortical system - *vortical string*. Through this string the exchange quanta of soliton type are transferred. Approximately more than 90% of vortical strings from one act of a quantum space excitation is transferred into an exchange string connecting orbital subelectron to a nucleus of electron and only an insignificant part is radiated normally out of an orbit periphery. As the plane of a subelectron orbit is constantly wobbling Fig. 10, the plankeon radiation out of orbit periphery has spherically symmetric nature. This normal peripheral radiation is detected as an elementary charge of electron for the external observer. It is necessary also to note that the most part of 'charge' (if it is possible to tell so) is concentrated inside the orbit of S_{e^-} , i.e. actually inside of electron (inside the radius of $r_e = 2,8 \cdot 10^{-15} m$) Fig. 12.

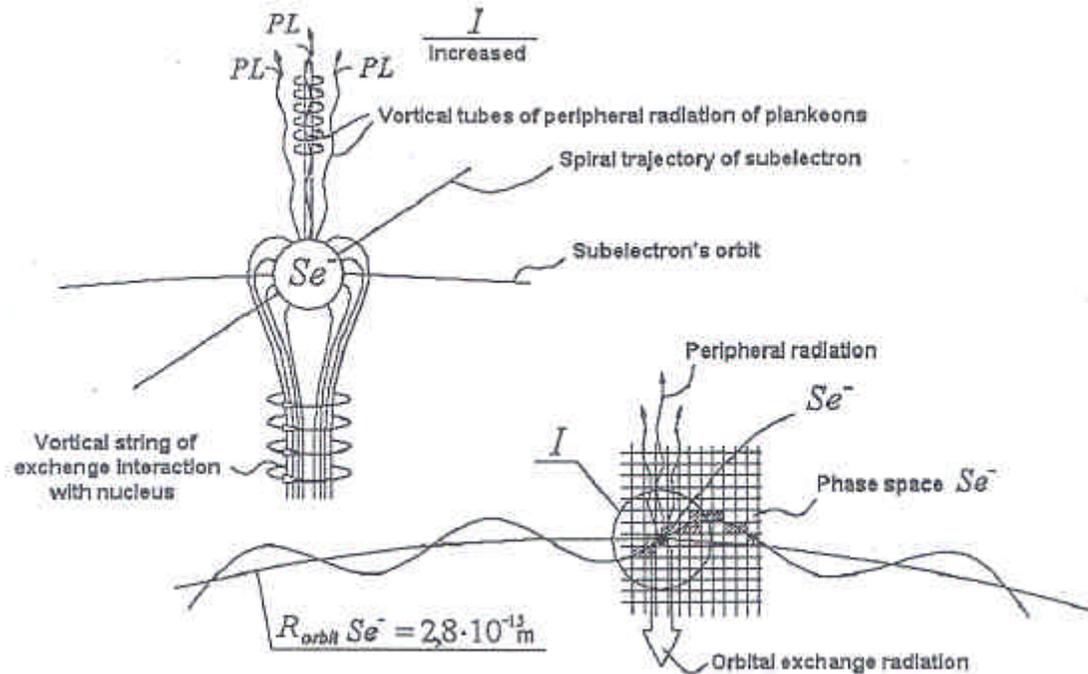


Fig. 12. Plankeon radiation by subelectron.

At transition of Se^- into a next quantum of space one is excited as well as previous, forming the same picture of vortical fields by the plankeon radiation. The act of plankeon radiation is quantized rather of Se^- energy which can happened at a different power levels. The difference of energy (as well as at electron) is expressed in change of three basic parameters of movement - radius of orbit, change of amplitude and frequency of a spiral trajectory along the orbit and a change of parameters of a precession movement in a plane of subelectron ecliptic. These quantum conditions are connected with change of kinetic energy of rotation in result of inverse exchange by energy with the conjugate world caused by presence of internal and external potentials.

Let's tell literally some words about nucleus of electron. It has a radius of $r_{nuci e^-} = 1,54 \cdot 10^{-18} m$. In its structure, as well as in nucleus of the proton, a microwhite hole with a singular point of transition into associated world is included. The nucleus makes a chaotic quantum fluctuations around the center of electron weight and as well as Se^- , is exciting quantum of space creating similarly of Se^- of a vortical structure with opposite rotation (a 'charge of an opposite sign!'). The quantum fluctuations of nucleus has spherical symmetric nature and each act of moving in the next quantum of space is synchronized with the same moving of Se^- on an orbit. Thus arises a coherent plankeon radiation, supported by subelectron and nucleus, which provide of structural energy exchange Fig. 13.

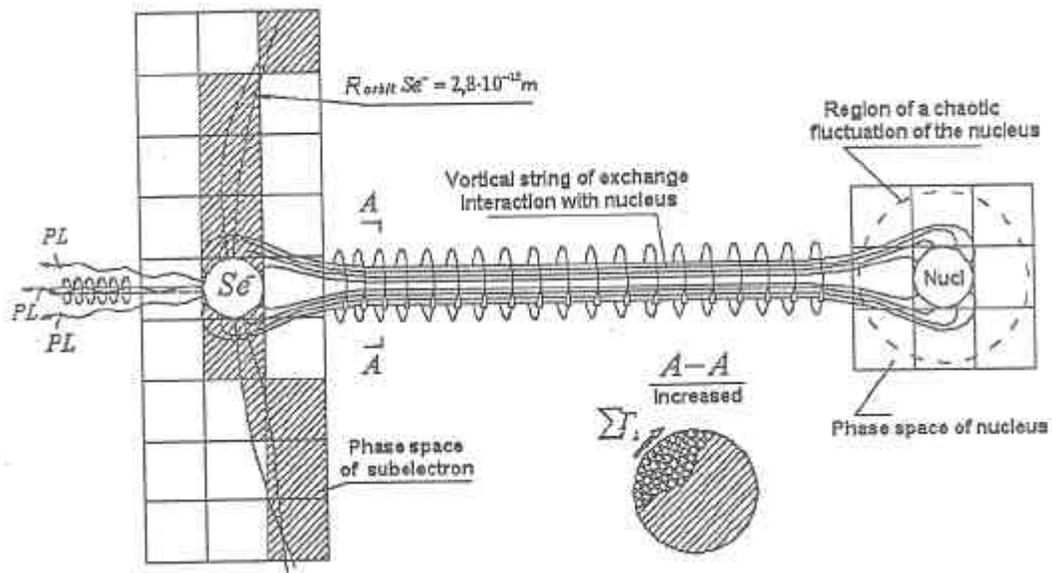


Fig. 13. Structural energy exchange between subelectron and nucleus.

Here it is necessary to suppose that the subelectron, moving along an orbital trajectory, is leaving from one quantum of space (QS) disappears on quantum of time and then appear already in next QS. The vortical structure, which is reflected on Fig. 13 for the moment of transition of a particle in next QS does not disappear together with it, as it is in own phase space of planckons of our world. The energy of this vortical structure is being dissipated constantly, but up to the moment of occurrence of a particle in next QS has no collapsing. The old vortical string - the result of previous act of exchange of Se^- with nucleus, is the ready vortical streamer for the new vortical structure, which appears as a result of excitation of next QS of Se^- and a nucleus accordingly. As a result a new vortical structure connect with an old exchange string, which have a displacement rather a new QS, thus happens a new act of a power exchange between Se^- and nucleus. This occurs during a complete cycle time of Se^- on an orbit. As a result of these new connections the body of a vortical string constantly is being subjected to deformations for a stretching, compression and bend. The deformations as the bends of a vortical string in our model are considered as quantum solitons, a certain elementary particles answering for the exchange interaction. These processes of exchange will be illustrated below on an example of similar orbital movement of electron around of atom nucleus.

6. Quantization condition and spiral movement of particles.

Now when the question with creation of charge has become more cleared for a further investigation we must return to electron again and to consider its planetary structure of precession Fig.10 and features of movement of this structure in a nuclear ensemble.

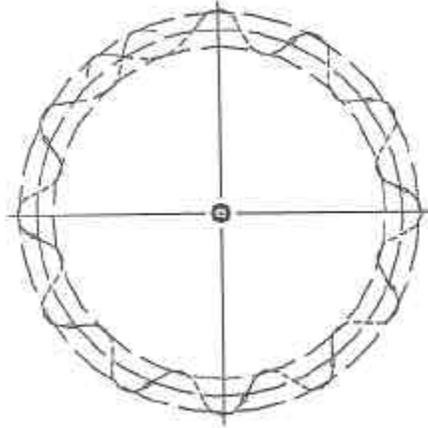


Fig. 14. Stacked waves of L. de Broglie.

As is known in physics the rather long time existed concept of particle-wave dualism. A number of the facts testified that the micro objects have a dual nature finding both property of particles and waves. L. de Broglie has put forward a hypothesis that length, which should be compared to a particle moving with speed V , of mass m is equal: $\lambda = h/mV$. On these basis the classical Bohr's formula for a flat circular orbit:

$$mVa = nh, \quad n=1,2,3\dots$$

we can interpret as a condition that on a circle of radius a the integer of lengths of de Broglie waves is stacked Fig. 14.

$$2\pi a = n \frac{h}{mV} = n\lambda. \quad (2)$$

From here it is easy to understand an origin and sense of discrete value describing behavior of an internal movement in the atom. Really, if the movement is characterized by some steady wave configuration existing in a limited area of space, such wave configuration obviously should represent a self-closed standing wave. If, for example, such wave inscribed into a circle, the self-closure is possible only in that case, when on this circle the integer of lengths of waves is packed. The real movement of electron in atom occurs in three dimensions and the wave configuration (wave function) appropriate to it is a more complex.

In our model the condition of de Broglie quantization concerning to a flat wave is examined as 3-D movement of a discrete object along a spiral trajectory, the axis of this spiral is a radius of orbit and radius of the spiral is equal to amplitude of a flat wave (projection of a spiral to a plane). It is necessary to tell that the submitted model of quantum movement of a discrete object along an orbit is applicable to all range of complex elementary particles, where there is an orbital movement. In this short announcement we shall try to describe phenomenologically a nature of wave function of electron. Let us take into consideration one-electron atom.

Electron as a stable composite particle is moving along an orbit around of proton. The trajectory of movement on an orbit represents a spiral. The projection of a spiral to a plane corresponds harmonic curve, which reflects wave nature of movement of object.

Next characteristics of electron follow from here: frequency - ν_e - equal frequency of the rotation of electron - particle around of an axis of a spiral; length of a wave - λ_e - - step of a spiral; phase speed of electron wave propagation, conterminous with speed of object V along an axis of a spiral Fig. 15.

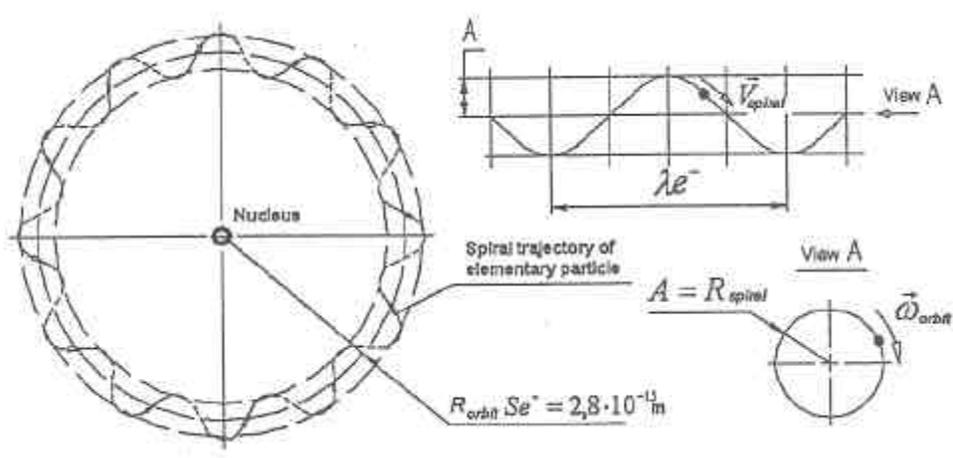


Fig. 15. Spiral trajectory of electron movement.

7. Vortical strings of exchanged electromagnetic interaction.

The set of various kinetic moments - orbital, spiral and spin, has results that the ecliptic plane of electron (as well as S_e in electron structure) are wobbling around of nucleus and at a long supervision a density of probability of the electron detection in this area will have a spherical symmetry. For consideration of one-electronic atom in a context of interaction of electron and proton we need W recollect internal structure of electron Fig. 10, 11 as well as proton Fig. 12.

In case of interaction of an orbital element of the elementary particle with singularity of quantum space, as a result of plankeon radiation, a vortical structure (an exchange vortical string) of electromagnetic interaction is being formed. In phase space of electron and proton this looks as follows: electron consisting from a nucleus and Se rotating around it, raises by means of this ensemble a radiation of plankeons in space and forms a 'charged' vortical tubes. The same occurs and with the structural ensemble of the proton. Exchange interaction of Se and nucleuses of electron by means of the vortical strings Fig. 13 and their nonlinear deformations was described above. With exchange electromagnetic interaction of electron and proton the matter is the similar except for some nuances connected with change of scale of phase space Fig. 16.

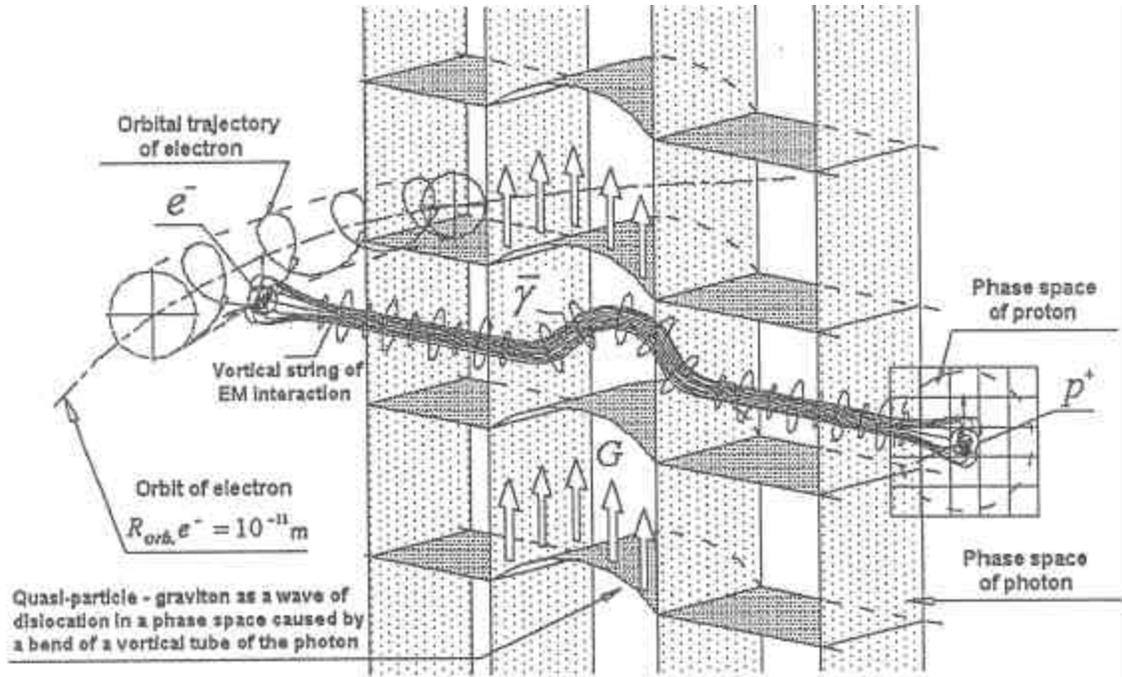


Fig. 16. The string dislocation - graviton in phase space of photon.

In Chapter 4 of our book [12] the questions of formation and dynamics of bends of vortical tubes were examined in detail. Here it is necessary to add that the deformations of a vortical string are connected first of all with discrete behavior of interaction of elementary particles with space, with character of a spiral movement of the orbital particles and chaotic walk on quanta of space of the nucleuses, topologically linked with them. Bended deformations of vortical strings in this case are considered as a body of photon (as a soliton) propagating along a vortical string.

The extended vortical string has circulation on the closed contour is equal:

$$\Gamma = \frac{1}{2} \pi dV_{circ} \cdot$$

The circulation of speed around of vortical tube (VT) is defined by the formula:

$$\vec{\Gamma} = 2\pi\vec{\chi} \quad (3)$$

where, $\vec{\chi}$ - vector of durability of VT on rotation; it is directed along of VT to the side of the large finger of the right hand, if other fingers at scope of VT specify a direction of its rotation. Dimension of $\vec{\chi}$ α and $\vec{\Gamma}$ - [m²/sec].

8. Zero oscillators of exchange string. Polarization of the vacuum.

Proceeding from origin of vortical tube we has received, that the exchange photons are polarized linearly with a spin is equal to zero. The phase space of VT actually consists of not excited zero oscillators of electron-positron pairs (see Chapter 8 of our book [12]), which not precessing are moving linearly along an axis of VT, being within the bounds of own quantum of space Fig. 17.

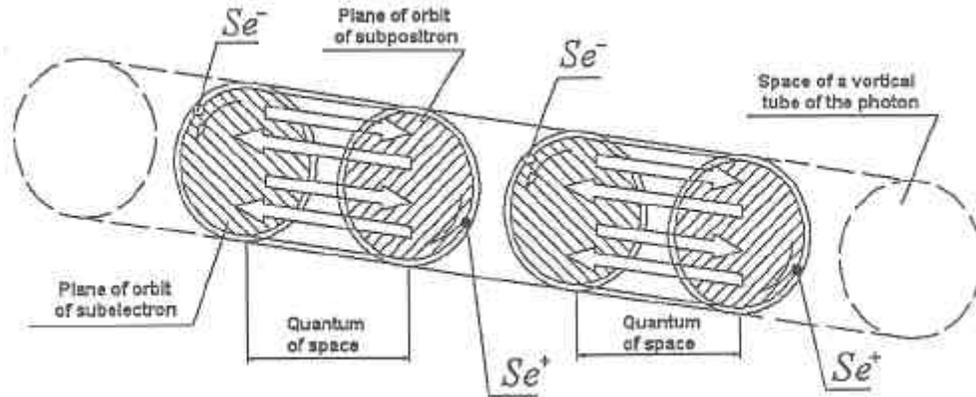


Fig. 17. Movement of electron-positron pairs along the vortical tube.

It is necessary to note that A plane of orbit of subelectron and of subpositron in this case are not precessed and therefore the similar objects cannot still form an own nucleus with quantum singularity. VT of exchange interaction under certain conditions can be split on external potential with creation of electron-positron pairs Fig. 18.

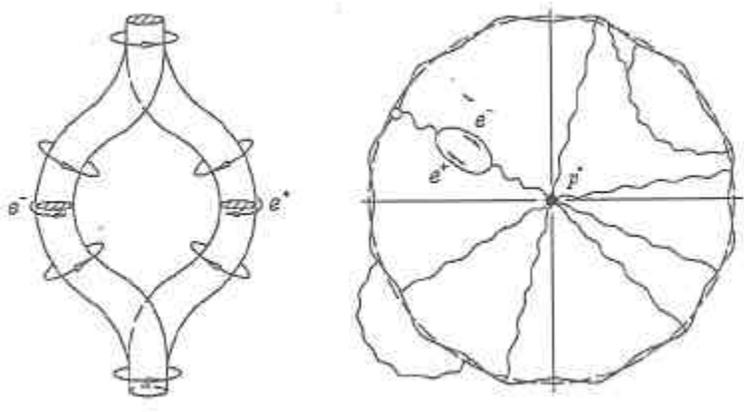


Fig. 18. Splitting of electron-positron pairs on an external potential.

9. Radiation and absorption of light by atom.

As a small remark to the outline, it would be desirable to tell some words about the mechanism of radiation and absorption of light by atom. For now we will be limited only by illustrative statement of a question.

First of all we will begin from a question of absorption of a photon by the electron. As we already have found out that photon represents the deformation of VT made from zero oscillators of not precessed electron-positron pairs. The similar vortical formations are included into a structure of vortical sponge of Bernoulli both in a not excited and in the excited (deformed) condition. The structure of electron, moving along an orbit, being in phase space of photon vortical structures, periodically interacts with them. This interaction is caused by a quantum position of a plane of ecliptic of subelectron in a structure of the electron. Precession angle of the subelectron orbital plane at a movement of electron along an orbit must be approximately equal to 12 degree. As a result of it the angle of the solved absorption of photon, i.e. overlapping of a plane of zero oscillations with a plane of a subelectron ecliptic is formed, Fig. 19. Moreover, such characteristics of photon as frequency, phase and direction of polarization should coincide with the characteristics of electron.

When a zero oscillator of photon enters into area of a quantum orbit of the subelectron an orbital capture of subparticles of zero oscillator by means of formation of new exchanged vortical strings is happened. This process is caused by increase of intensity of singular radiation of nucleuses for an exchange with new satellites. As a consequence of increase of number of satellites, the increasing of electron radius (approx. 5 %) occurs. It is indirectly caused by change of the moment of inertia of orbital system Fig.20, and change of parameters of orbital movement of electron. The amplitude of helicity and length of a wave are increasing sharply and then according to the acquired energy of a zero oscillator, electron is jumping on a higher level, which corresponds to a new range of kinetic energy.

The radiation of photons occurs in the inverse order under an interaction of the electron with external potential at observance of the same conditions as at the absorption - conformity of frequency, of phase and polarization.

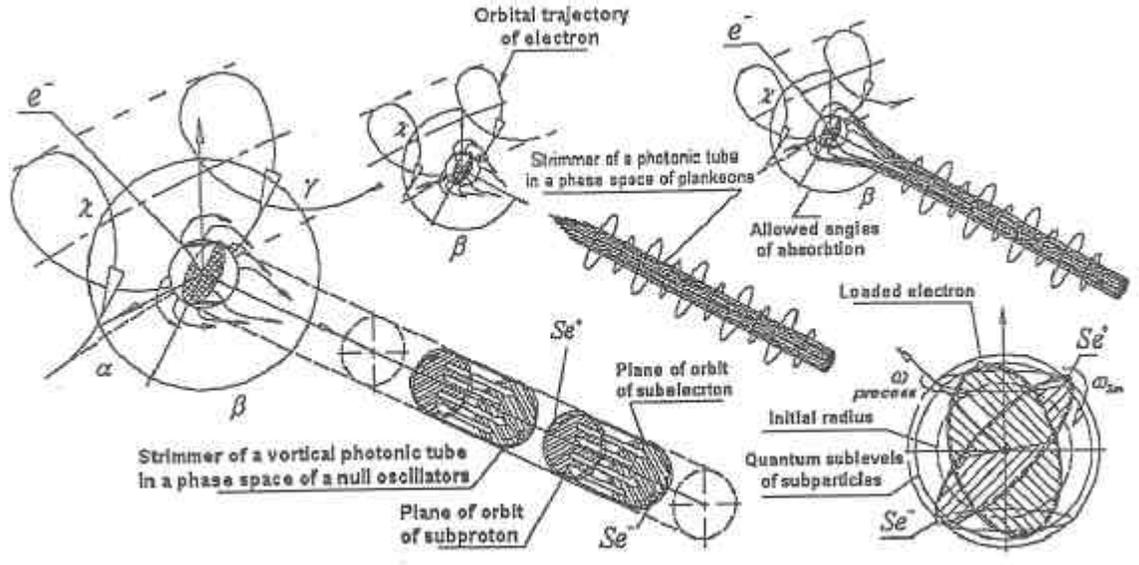


Fig. 19, Fig.20. The orbital movement of electron and creating of vortical strings.

10. Origin of the gravitational radiation. Gravitational polarization.

As it was marked in detail in Chapter 4 of [12], the bend of vortical tube creates displacement in a phase space of a vortical sponge of Bernoulli. This displacement is considered as a wave of dislocation, representing a classical quasi-particle, which carries a real quantum pulse. This quasi-particle is a body of graviton, the carrier of gravitational interactions. The speed of propagation of this quasi-particle is estimated at present moment as $|\vec{V}_g| = 5.75 \cdot 10^{36} \text{ m/sec}$.

Owing to precession of ecliptic plane of orbital subparticles the radiation of gravitons carries spherically symmetric character and, hence, is a completely compensated on a pulse. In Fig. 21 the basic circuit of gravitons radiation in a 'non-polarized' atom is shown.

As a result of influence of variable electromagnetic fields or in case of sudden EM perturbation, the gyromagnetic resonance, connected with a common polarization of not filled electronic sublevels, takes place. The process of polarization is directly associated with the termination of precession of the orbital electron. Actually the precession remains in limits of a very small angle of $\sim 1,5^\circ$. Thus an ecliptic plane of the electron becomes actually normal to external gyromagnetic field. As the consequence, the coherent and unidirectional radiation of gravitons occurs Fig.22. Since the atomic ensemble is a connected system, the pulses of separate gravitons are putted together and form a total coherent pulse for all system, which we can observe in a laboratory conditions.

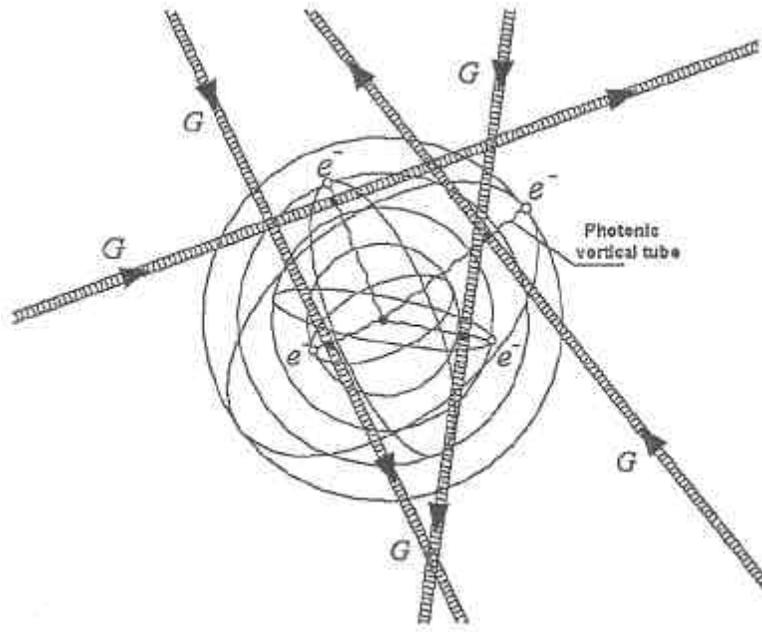


Fig.21. Spherically symmetric graviton radiation.

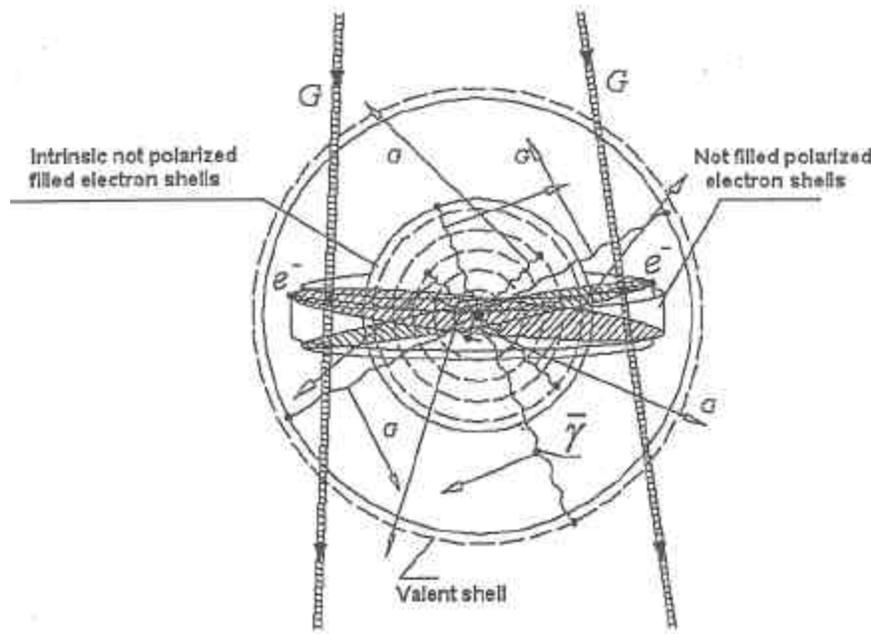


Fig.22. Violation of spherical symmetric graviton radiation.

it is necessary to emphasize that in a material of a working body of the converter at the point of precession termination of ecliptic plane of orbital electrons of not filled shells of atom the quazi-2D lattice is organized. The quantized vortex has a step of a lattice $a \sim 10^{-10} m$. The vortical strings attached to knots of the lattice are in phase space of atoms of a tetrahedral crystal lattice of converter magnets with a spatial group of $P4_2 / mnn$. As it was already marked above, the reason of occurrence of a quantized vortical string consists in a spatial movement of elementary and sub-elementary particles,

of ring-current of orbital electrons and of coherent gravitational radiation of not filled polarized orbits of atom.

In this case the vortical string arising in a phase space of atoms of crystal lattice is an inductive vortical structure in an atomic level Fig.23.

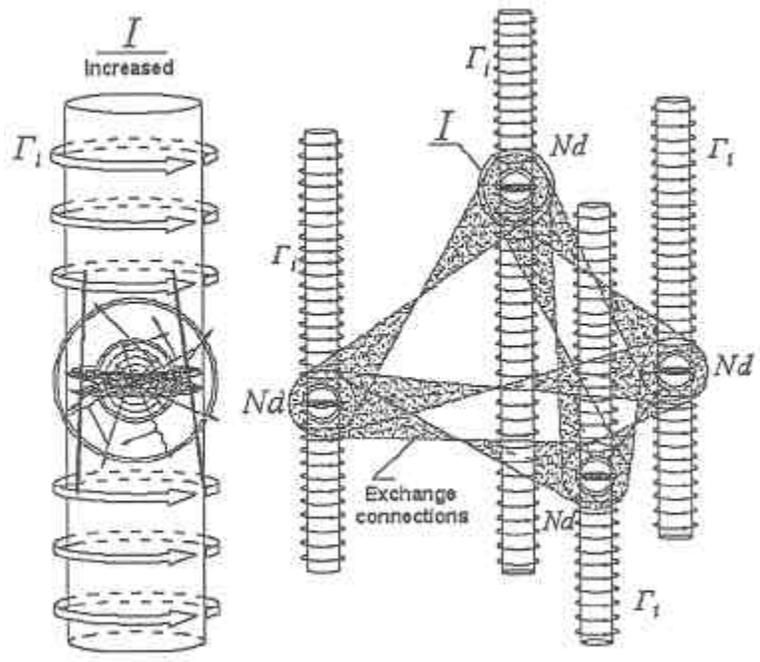


Fig.23. Arising of the coherent vortical structure in an atomic level.

Generally speaking a vortex causes speeds in all points of space engaged by a 'liquid' i.e. it actuates all environment surrounding it. If in a liquid there are also other vortices, at points which are placed at their axes, there are speeds from action of the first vortex and so on. Thus, a vortical system is in movement the all time and this movement is caused by its own vortices.

Lets consider a simple case when all vortical lines, which are taking place in a liquid, are rectilinear and reach ad infinitum in both parties, i.e. cause a flat movement. For one such vortex the circulation around of which is equal to Γ , the field of speeds is defined in a polar system of coordinates by the formulas:

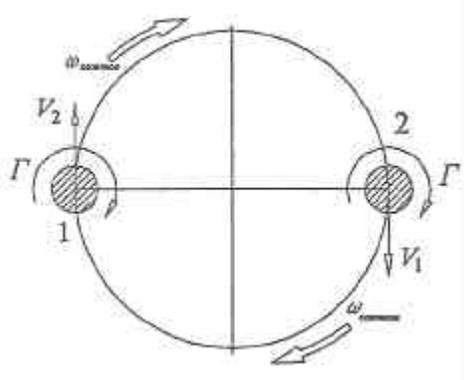
$$V_s = \frac{\Gamma}{2\pi r}, \quad V_R = 0 \quad (4)$$

Or in a rectangular system of coordinates, which beginning is on an axis of a vortex:

$$V_x = -\frac{\Gamma}{2\pi} \frac{y}{x^2 + y^2}, \quad V_y = \frac{\Gamma}{2\pi} \frac{x}{x^2 + y^2} \quad (5)$$

At presence in flow of the set of such rectilinear vortexes the field of speeds can be found by a method of imposing of flows, by summarizing of the same components of speeds from the separate curles.

Let's imagine, for example, a system consisting of two rectilinear vortexes with equal intensity and a sign. These curies gives to each other the opposite directed speeds with an equal values therefore the system comes in rotary movement around of axis passing through the middle distances between centres of whirlwinds.



To proceed to quantum mechanical analogies we will consider any flat vortical system, consisting of separate curles and we shall find its movement. It is possible to prove that for any system of flat vortexes the following equality takes place:

$$\sum_{k=1}^{k=n} \Gamma_k (x_k v_y^{(k)} - y_k v_x^{(k)}) = const, \quad \sum_{k=1}^{k=n} \Gamma_k (x_k^2 + y_k^2) = const. \quad (6)$$

The left part of the first- equality is similar to expression for the sum of the grouped moments of weights G_k concerning an axis Z , the left part of the second equality is similar to expression for the sum of moments of inertia of the same weights concerning an axis Z [11].

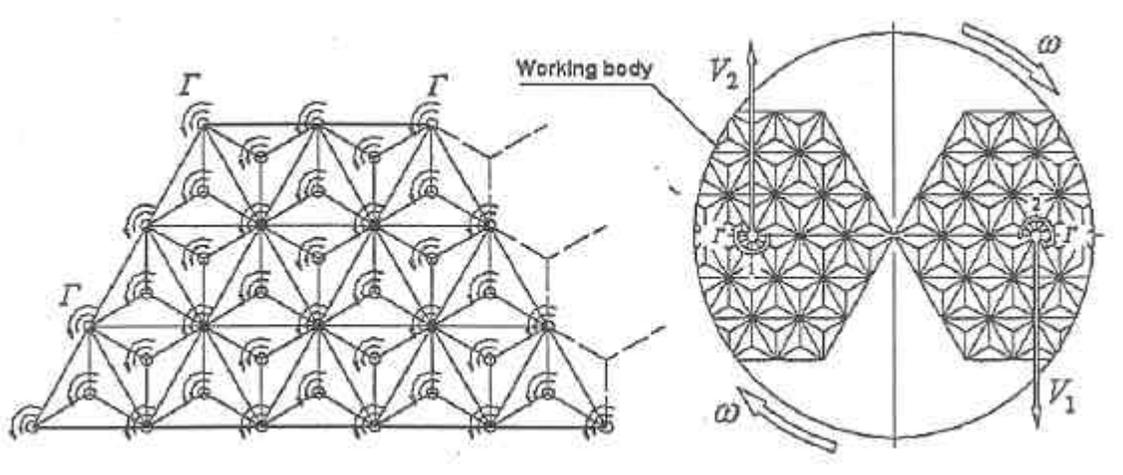


Fig.24. A relative rotary movement of magnetic system of the converter.

We will use this comparison for our task. Taking into account an openness of any natural system, in particular, the system of our converter, we see that due to preservation of quantity of system movement in whole, the elementary vortical structures of any element of a working body will interact with external environment of subelementary particles, generating a relative rotary movement Fig.24. Thanks to these properties, the element of a working body of the converter will rotate with acceleration as is observed in experiment.

11. Description of dynamic magnetic system and received effects.

11.1. Introduction.

We have experimentally studied the physical effects in a system based on rotating permanent magnets [1]. Below we describe the technology of manufacture, assembly, and the results of testing this experimental setup, which is referred to as the converter.

11.2. Description of the Experimental Installation.

The basic difficulty arises in choosing the materials and maintaining the necessary pattern imprinting on the plate and roller surfaces. To simplify the technology we decided to use a one-ring design with one-ring plate (stator) and one set of rollers (rotor). It is obvious, that it was necessary to strengthen the rollers on a rotor by the bearings and balance the rollers well. In the suggested design, air bearings were used which provided the minimum losses due to friction.

From the available description [1] it was not clear how it is possible to make and magnetize the stator with a diameter of about one meter. In order to make the stator from separate magnetized segments executed with rare earth magnets with the residual induction of 1T, the segments were magnetized in a usual way by discharging a capacitor- battery energizer through a coil. Afterwards the segments were assembled and glued together in a special iron armature, which reduced magnetic energy. To manufacture the stator 110 kg of rare earth magnets were used. To manufacture the rotor 115 kg of that material was used. High-frequency field magnetization was not applied. It was decided to replace an imprinting technology described in [1] with cross-magnetic inserts having a flux vector directed at 90 degrees to the primary magnetization vector of the stator and rollers

For these cross inserts, modified rare earth magnets with a residual magnetization of 1,2 T and coercive force a little bit greater than in a base material were used. In Fig. 25 and Fig. 26 the joint arrangement of stator 1 and rotor, made up of rollers 2, and a way of their mutual gearing or sprocketing by means of cross magnetic inserts 19, are shown. Between the stator and roller surfaces the air gap δ of 1-mm is maintained.

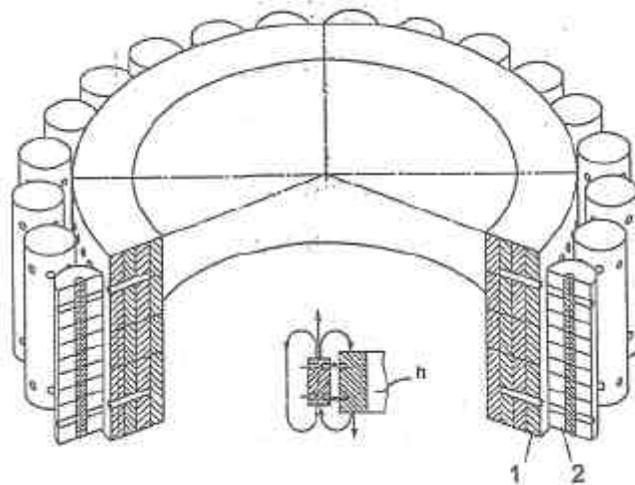


Fig. 25. Variant of one-ring converter.

No layered structure was used except a continuous copper foil of 0.8 mm thickness, which wrapped up the stator and rollers. This foil has direct electrical contact to magnets of the stator and rollers. Distance between inserts in the rollers is equal to distance between inserts on the stator. In other words, $t_1 = t_2$ in Fig. 26.

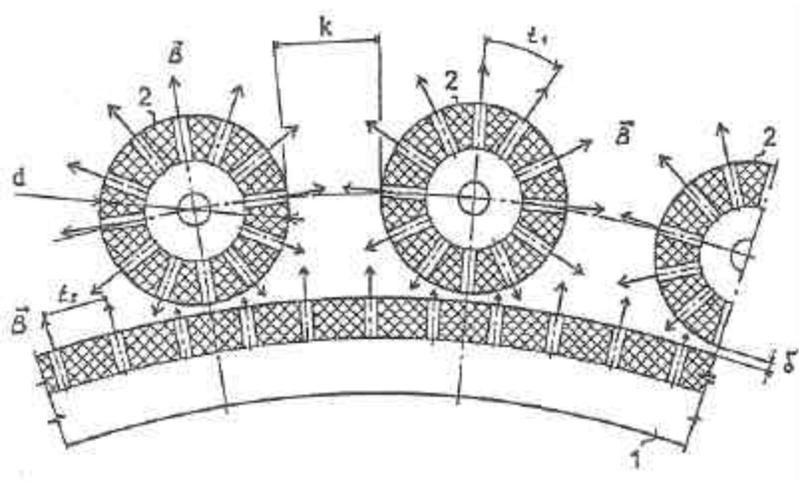


Fig.26. Sprocket effect of magnetic stator and roller inserts.

The ratio of parameters of the stator 1 and the rotor 2 in Fig. 26 is chosen so that the relation of stator diameter D to the roller diameter d is an integer equal to or greater than 12. Choosing such ratio allowed us to achieve a "magnetic spin wave resonant mode" between elements of a working body of the device since the circumferences also maintained the same integer ratio.

The elements of magnetic system were assembled in a uniform design on an aluminum platform. In Fig.27 the general view of the platform with the one-ring converter is displayed. This platform was supplied with springs, amortizators and had a possibility of moving vertically on three supports. The value of displacement about 10 mm was measured by the induction displacement meter 14. Thus, the instantaneous change of the platform weight was defined during the experiment in real time. Gross weight of the platform with magnetic system in the initial condition was 350 kg.

The stator 1 was mounted motionlessly, and the rollers 2 were assembled on a mobile common separator 3, also regarded as the rotor, connected with the basic shaft 4 of the device. Through this shaft the rotary moment was transferred. The basic shaft by the means of friction muff 5 was connected to a starting engine 6, which accelerated the converter up to a mode of self-sustained rotation. The electrodynamic generator 7 was connected to the basic shaft as a main loading of the converter. Adjacent to the rotor, electromagnetic inductors 8 with open cores 9 were located.

The magnetic rollers 2 crossed the open cores of inductors and closed the magnetic flux circuit through electromagnetic inductors 8, inducing an electromotive force emf in them, which acted directly on an active load 10 (a set of inductive coil, incandescent lamps with total power load of 1 kW). The electromagnetic inductors 8 were equipped with an electrical drive 11 on supports 12. Driven coils for smooth stabilization of the rotor's rpm were used but the speed of the rotor could be adjusted by changing the main loading 10.

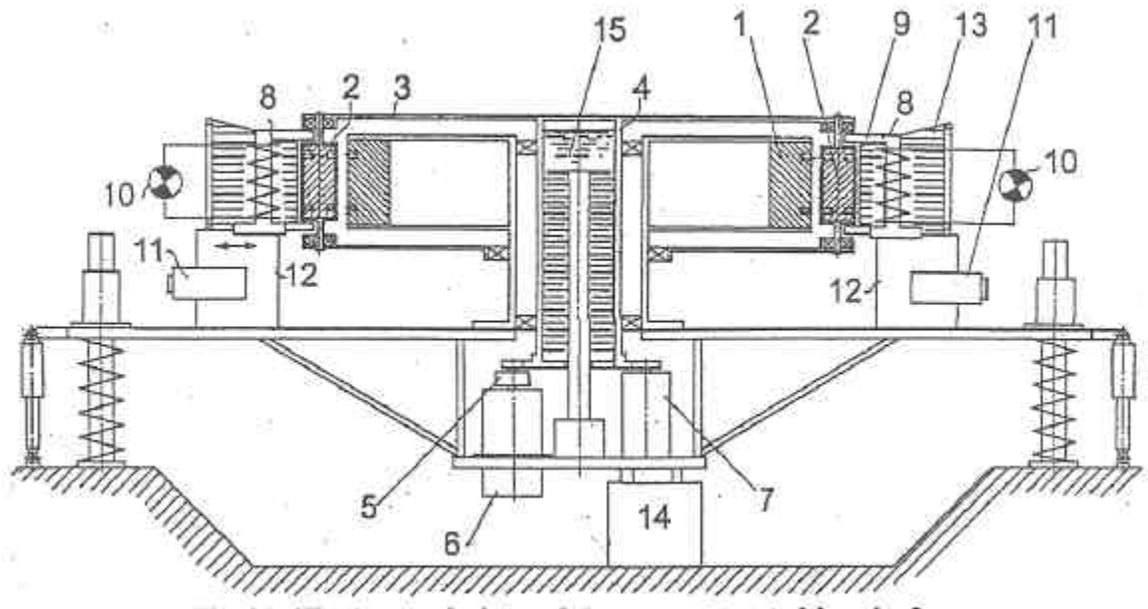


Fig.27. The general view of the converter and its platform.

To study the influence of high voltage on the characteristics of the converter, a system for radial electrical polarization was mounted. On the periphery of the rotor ring, electrodes 13 were set between the electromagnetic inductors 8 having an air gap of 10 mm with the rollers 2. The electrodes are connected to a high-voltage source; the positive potential was connected to the stator, and the negative to the polarization electrodes. The polarizing voltage was adjusted in a range of 0-20 kV. In the experiments, a constant value of 20 kV was used.

In case of emergency braking, a friction disk from the ordinary car braking system was mounted on a basic shaft of the rotor. The electro-dynamics generator 7 was connected to an ordinary passive resistive load through a set of switches ensuring step connection of the load from 1 kW to 10 kW through a set of ten ordinary electric water heaters.

The converter undergoing testing had in its inner core the oil friction generator of thermal energy 15, intended for tapping a superfluous power (more than 10 kW) into the thermo-exchange contour. But since the real output power of the converter in experiment, has not exceeded 7 kW, the oil friction thermal generator was not used. The complete stabilization of revolutions has been made by electromagnetic inductors connected to additional load - the set of incandescent lamps with total power of 1 kW.

11.3. Experimental results.

The magnetic-gravity converter was built in a laboratory room on three concrete supports at a ground level. The ceiling height the lab room was 3 meters the common working area of the laboratory was about 100 sq. meters. Besides the presence of the iron-concrete ceiling, in the immediate proximity from the magnetic system there was a generator and electric motor, which contained some tens of kgs of iron and could potentially deform the field patterns.

The device was started by the electric motor, which accelerated the rotation of the rotor. The revolutions were smoothly increased up to the moment the ammeter included in a circuit of the electric motor started to show zero or a negative value of consumed current. The negative value indicated a presence of back current. This back current was detected at approximately 550 rpm under clockwise rotation. The displacement meter 14 starts to detect the change in weight of the whole installation at 200 rpm. Afterwards, the electric motor is completely disconnected by the electromagnetic muff and an ordinary electro-dynamics generator is connected to the switchable resistive load. The generator rotor continues to self-accelerate and approaches the critical mode of 550 rpm where the weight of the device quickly changes.

In addition to dependence on a speed of rotation, the common weight of device depends from output power on the load and on an applied polarizing voltage as well. As seen in Fig.28, at the maximum output power equal to 6-7 kW, the change of weight ΔG of the whole platform (total weight is about 350 kg), reaches 35 % of the weight in an initial condition G_i . Applying a load of more than 7 kW results in a gradual decrease of rotation speed and an exit from self-sustained mode (right sides of curves on Fig.28 for a 7 kW loading).

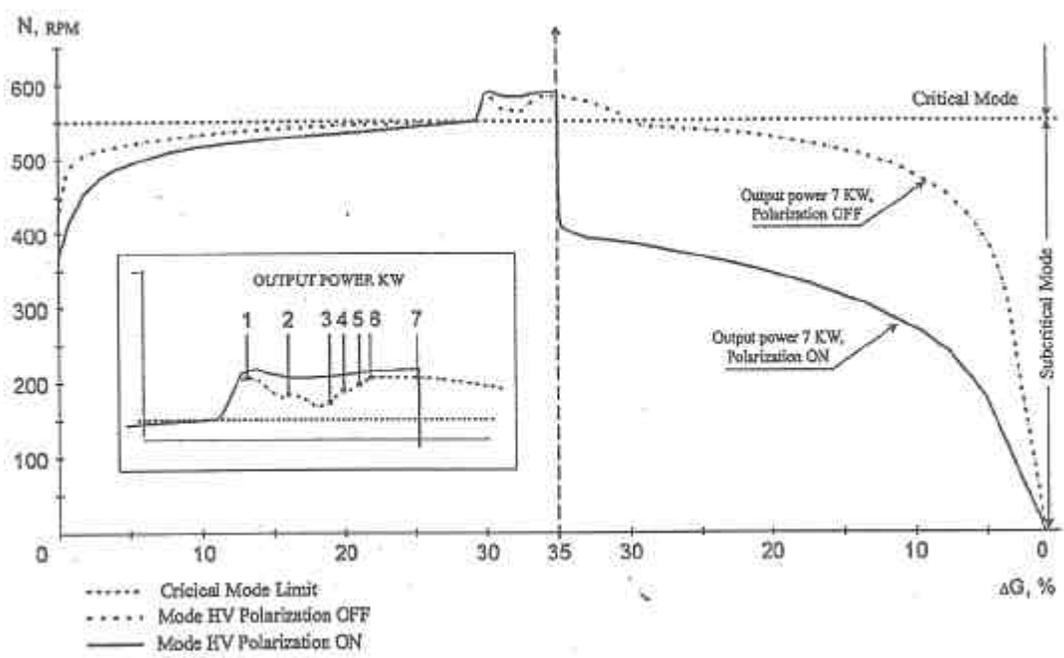


Fig.28. -G, +G changes in weight of the platform vs. rpm

The net weight G_n of the platform can be controlled by applying high voltage to polarization ring electrodes located at a distance of 10 mm from external surfaces of the rollers. Under the high 20 kV voltage (electrodes having negative polarity) the increase of tapped power of the basic generator to more than 6 kW does not influence, ΔG if the rotation speed is kept above 400 rpm. "Tightening" of this effect is observed as well as the effect of hysteresis on ΔG at rotation of a rotor on a clockwise and counter-clockwise (a kind of "residual induction"). The experimental diagrams given on Fig.28 illustrate the +G and -G modes of the converter operations vs. rotor rpm. The effect of a local change of the platform weight is reversible, relative to the direction of rotor turning, and has the

same hysteresis. A clockwise rotation causes the critical mode to occur in the area of 550 rpm and the propulsion force against the direction of gravitation vector is created. Correspondingly, a counter-clockwise rotation causes the critical mode to occur in the area of 600 rpm and a force in the direction of gravitation vector is created. The difference in approach to a critical mode of 50 - 60 rpm was observed. It is necessary to mention that the most interesting region are situated above the critical area of 550 rpm, but due to a number of circumstances the implementation of such research was not possible. It is necessary to note, that probably there are also other resonant modes appropriate to higher rpm of a rotor and to the significant levels of useful loading and weight changing. Proceeding from the theoretical assumptions, the dependence of tapped mechanical energy from the parameters of magnetic system of the converter and rpm of a rotor has a nonlinear character and the received effects are not optimum. From this point of view, the revealing of the maximal output power, of the maximal change of weight and resource of the converter represents the large practical and scientific interest. In tested sample of the converter the using of higher rpm was inadmissible because of insufficient mechanical durability of the magnetic system, which has been stuck together from separate pieces.

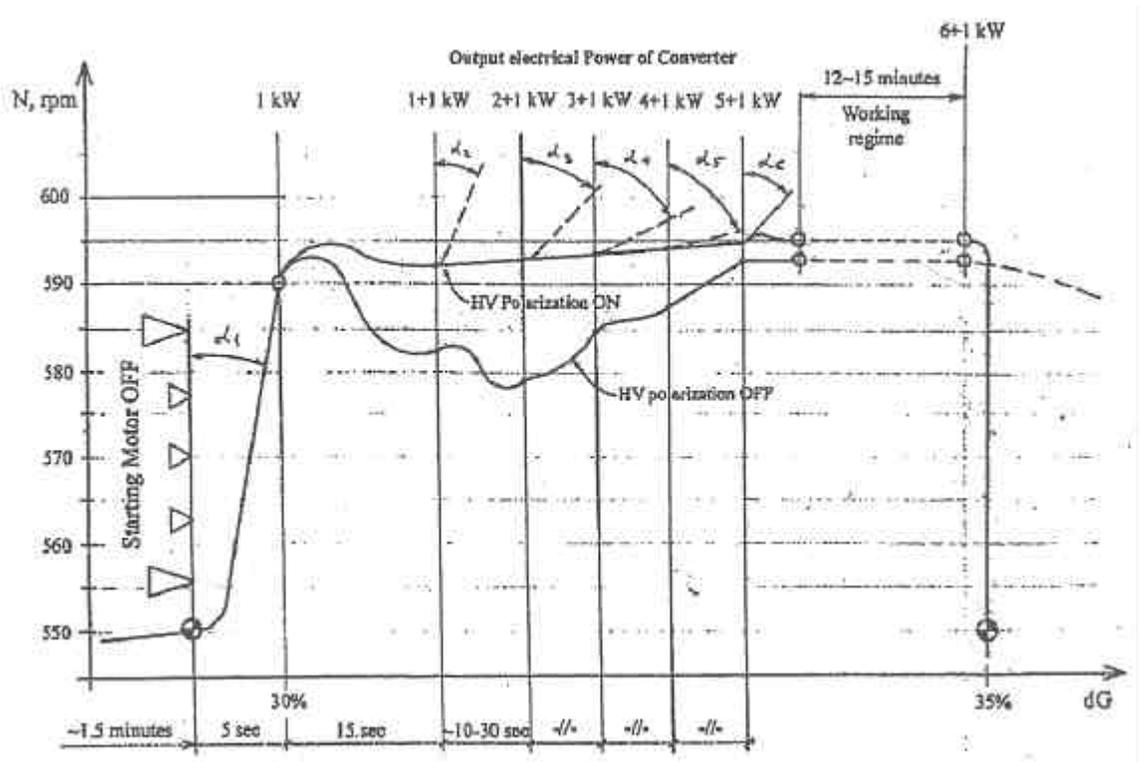


Fig.28 Diagrams of rotor accelerating and loading of the converter.

In Fig.28 the dependence of total weight of the installation and its output power directed into active loading from rpm of a rotor of the converter is explained in detail. The diagrams are constructed for a case of HV polarization ON (top diagram) and HV polarization OFF (bottom diagram). The time from the starting of the engine up to a mode of self-generation of the converter, at the rotation of a rotor clockwise, approximately is equal 1.5 minutes. (The power of starting engine was about of 2 KW

with a reduction on a shaft of the converter is equal 1/10). At achievement of a critical mode (550 rpm.) the change of gross weight of a platform already achieves +1-30% from G_i . In the point of transition to a resonant mode, the revolutions with the large acceleration have increases up to 590 rpm and weight has changes up to + /-35% from G_i . This place of the diagram begins at once after a critical point (inclination of a curve a_1). At achievement of 590 rpm the first stage of active loading 1 kW is connected to the electrodynamic generator. The revolutions are sharply reduced and ΔG also is changing. As soon as the revolutions begin to grow again, the second switch able loading is connected and rotor rpm are stabilized at a level of 590-595 rpm. ΔG continues to change. The increasing of switch able loading occurs by steps on 1 kW up to total power of 6 kW. All intervals are equal ap- proximately of 10-30 sec. Afterwards the short-term increasing of revolutions and then the full stabilization of a mode during of 12-15 min were observed.

More than 50 launches of the converter with an absolute repeatability within three months were carried out. It is necessary to note that revolutions will grow with acceleration shown on Fig.28 by angles $a_1 \dots a_5$, if do not switch the next step of loading to the generator at rpm increasing. For returning to a previous rpm mode it is necessary to connect a twice more loading.

All the words above concern a mode with high voltage polarization of 20 kV, plus" on a grounded stator. Without polarization voltage (lower curve) the diagram is approximately the same, but is well indicated the more hard character of a loading and faster changing of weight of a platform due to decreasing of rpm.

Other interesting effect is the work of the converter in a dark room when corona discharges are observed around the converter rotor as a blue-pink glowing luminescence and a characteristic ozone smell. In Fig.29 the cloud of ionization covers the area of a stator and a rotor and have accordingly a toroidal form.

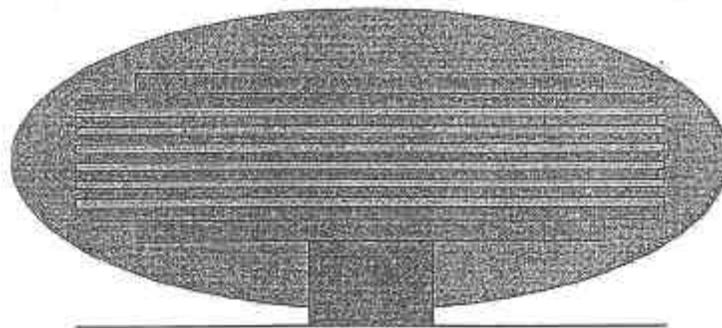


Fig.29. Corona discharges around the generator.

On the background of luminescence glowing on roller surfaces, we distinguished a separate <<wave picture>>. A number of more vigorous strips of discharges around the rollers were observed. These discharges were of a white-yellow color but the characteristic sound for arc discharges was not audible. There were not present any seen erosive damages by arc discharges on surfaces of the stator and the rollers as well.

One more effect previously not mentioned was observed - the vertical concentric magnetic "walls" around the installation. We noticed and measured the abnormal

permanent magnetic field around the converter within the radius of 15 meters. For the magnetic field measurement the Russian magnetometer F4354/1 was used. Magnetometer used the Hall-effect sensor in a copper shielding. The zones of an increased intensity of a magnetic flux 0.05 T located concentrically from the center of the installation were detected. The direction of the magnetic field vector in these walls coincided with direction of the rollers field vector. The structure of these zones reminded us of circles on water from a thrown stone. No any magnetic fields were registered between these zones by portable magnetometer. The layers of increased intensity are distributed practically without losses up to a distance of about 15 meters from center of the converter and quickly decrease at the border of this zone. The thickness of each layer is about 5 - 6 cm the border of each layer was very sharp. The distance between layers was about 50 - 80 cm were upper limit is seen when moving from the center of the converter. A stable picture of this field was observed as well as at a height of 6 m above the installation (on the second floor above the lab). Above the second floor, measurements were not carried out. The similar picture was observed and outside of a room of laboratory, directly in the street, on the ground. The concentric walls are strictly vertical and no had appreciable distortions. In Fig.30 the schematic placing of the converter in a room of laboratory and arrangement of concentric magnetic fields are shown.

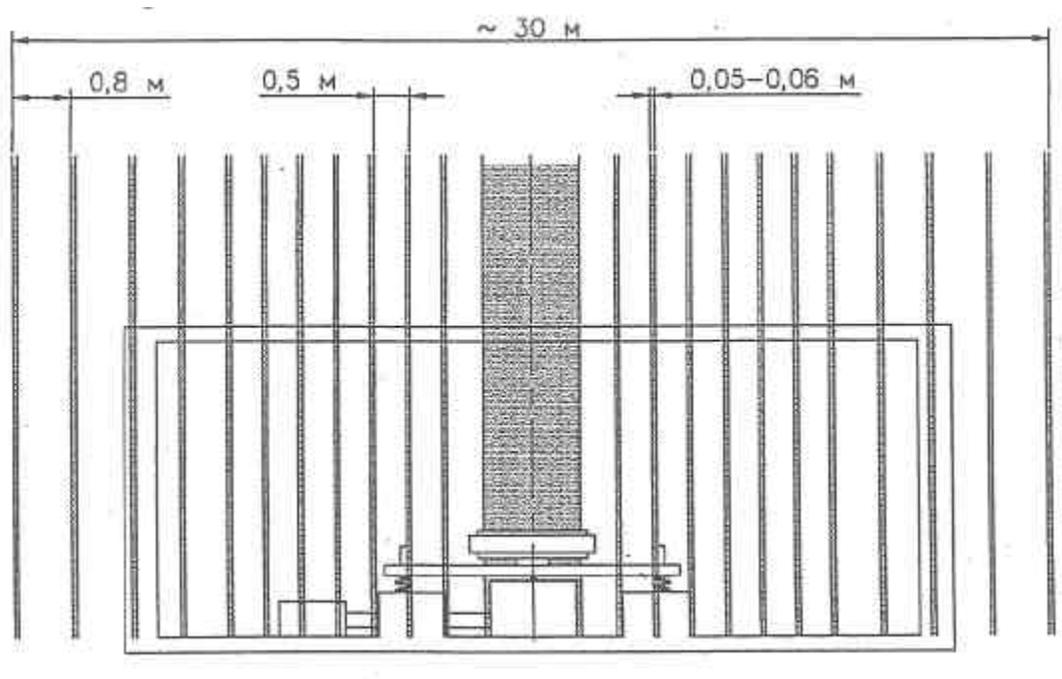


Fig.30. Schematic placing of the converter and field patterns in lab room.

An anomalous decrease of temperature in a vicinity of the converter was also found. While the common temperature background in laboratory was $+ 22^{\circ}\text{C}$ ($\pm 2^{\circ}\text{C}$) the stable fall of temperature equal to $6-8^{\circ}\text{C}$ was noticed. The same phenomenon was observed in concentric vertical magnetic walls as well as. The measurements of temperature inside the magnetic walls were carried out by an ordinary alcohol thermometer with an inertia of indication about 1.5 min. Inside the magnetic walls the temperature changes can even be distinctly observed by hand. When the hand is placed into this magnetic wall it feels very cold at once. A similar picture was observed at height above the installation, i.e. on a

second floor of the laboratory as well as despite of ferro-concrete blocking of a ceiling and also on an open air outside of the laboratory.

Concentric magnetic walls and accompanying thermal effects begin to appear approximately from 200 rpm, and linearly has increasing with speeding up of revolutions up to a critical mode. The measurements above 600 rpm were not made because of fear of destruction of magnetic system. In Fig.31 the curve of intensity of magnetic field in mT and change of temperature in Celsius degrees due to rpm changing is represented.

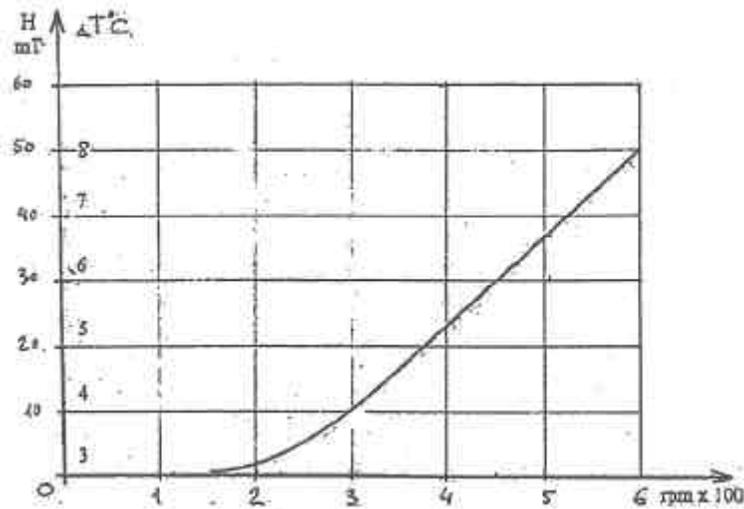


Fig.3 1. The dependence of intensity of magnetic field and changes of temperature vs rotor rpm of the converter.

11.4. Discussion.

All the results we obtained are extremely unusual and require some theoretical explanation. Unfortunately, interpretation of these results within the framework of conventional physical theory cannot explain all observed phenomena especially the change of weight. It is possible to interpret the change of weight either as a local change of gravitational force or as an antigravity force repelling its own field. Direct experiment, confirming the presence of a propulsion force was not performed, but in any case both interpretations of the weight change do not correspond to the -modern physics paradigm. A reconsideration of the standard theory- of gravitation is possible if we will take into consideration the possibility of local space-time curvature.

In conclusion we emphasize that issues of biological influence and especially of variations of real time stream effects, which must be taking place in an operative zone of the generator, were not considered at all. Our own experience allows us to do only cautious assumption that the short-term stay (dozen minutes) in a working zone of the generator with fixed output power of 6 kW remains without observed consequences for exposed persons.

Bibliography:

1. J. A. Thomas, Jr., ANTI-GR,4 VITY- the Dream Made Reality: the Story of John R. Searl (Direct International Science Consortium, London, 1994), Vol.VI, Iss.2.
2. Stephen Hawking, Roger Penrose. 'The Nature of Space and Time'. // Princeton, New Jersey //, 2000.
3. Penrose R. 'Gravity and quantum mechanics'// Institute of Physics Publication, Bristol and Philadelphia. //, 1993.
4. Kip S. Thorne, R. H. Price, D. A. Macdonald.'Black Holes: The Membrane Paradigm'. // Yale University Press, New Haven and London. //, 1986.
5. M. Van-Dayk.'Album of currents of a liquid and gas' // Moscow, Mir, 1986. (in Russian, translation from English).
6. G.K.Grebenschikov 'Model of a hydrogen atom' // St. Petersburg - Energoatomizdat , 1994 (in Russian).
7. A.A. Detlaf 'The course of physics' vol.2, Electricity and magnetism. Moscow, High School, 1977 (in Russian).
7. A.V. Shpoisk 'Nuclear physics' vol.2, Moscow, Nauka, 1984 (in Russian).
8. A.A. Sokolov 'The Quantum mechanics', Moscow, Nauka, 1979 (in Russian).
9. Tailor B., Parker V., Langenberg D. 'Fundamental constants and quantum electrodynamics'. M.: Atomizdat, 1972, p.200 (in Russian, translation from English).
10. 'The Physical encyclopedia', vol.2, Moscow, Nauka, 1971, p 172 (in Russian).
11. N.Ya. Fabricant 'The Aerodynamics', Moscow, Nauka, 1964, p.816 (in Russian).
12. V.V. Zolotarev, V.V. Roschin, S.M. Godin. About structure of space-time and some interactions. (The theory and original experiments on extraction of inner atomic energy). Moscow, 'Prest', 2000, 309p. with illustrations. (in, Russian).