

this movement their masses increase according to (11). This increase takes place because the mass of the field of particle, which is called "gravito-inert mass", increases. With a top speed ( $v=c$ ) an antiparticle appears from it. But antiparticle is the same formation as a common particle, but its spins are opposite to spins of common particles. Gravito-inert mass is a mass of magnetic field of particle. Kinetic energy of

magnetic field is equal to  $m_{gi} \frac{v^2}{2}$  and when it becomes

equal to  $m_g c^2$ , then a new antiparticle will form from this magnetic field, i.e. with energy of  $m_{gi} v^2 = 2m_g c^2$ .

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# On the Eve of the Sixth Revolution in Physics

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## Condition of modern theoretical physics and the ways of its development

### **Methodological crisis in modern theoretical physics.**

Modern physics achieved outstanding results in the field of cognition of laws of nature and in many applied fields. The twentieth century is characterized with such great achievements as splitting of nucleus and creation of atomic energy on this base, creation of quantum generators, discovery of astronomic objects with unexpected properties, research of properties of "elementary particles" of the matter and many others. Absolutely new directions of natural science appeared, which not only solved many theoretical problems, but also put them to serve the all mankind.

However, in spite of this, it becomes more evident, that in some fundamental fields of natural science, first of all in theoretical physics, some contradictions appeared and they keep on accumulating. They are nicely named as "divergences", which have the fundamental character and which are the serious hindrance of further development of fundamental and applied science.

The numerous attempts to combine the basic fundamental interactions on the base of conceptions existing in modern physics turned out to be practically unsuccessful. The amount of opened "elementary particles" of matter does not correlate with the full uncertainty of their structure. Energy of radiation of the stars including the Sun is not explained because its radiation shall wear out long ago taking into consideration the time. Even in such a developed field as electrodynamics we have the whole classes of problems, which cannot be solved in the frames of

existing theory. For example with the movement of two similar charges a paradox appears: quiet similar charges should repel from each other by the law of Coulomb, but they attract each other because they are the currents. If they are still immovable in relation to each other, then why do they attracting in the movement?

In spite of many public appearances, statements and popular and special articles having the aim to prove the greatness of modern physics and great possibilities, which are waiting for the mankind in relation with its achievements, we should state that there is no anything similar in reality. There are a series of contradictions, so called "paradoxes" in physics; some of its theses became discrepant with the theses of dialectical materialism. For example, the idea of "Big explosion" is in contradiction to the thesis of dialectical materialism about the absence of origin, birth or creation of the Universe. But some theorists suppose that dialectical materialism should be corrected because some parts of it are in contradiction with the universally recognized theories in physics, for example with the relativity theory.

In the applied physics different promises do not realize nevertheless. Many years passed from the moment when the "stable plasma" was created and existed for 0,01 second. Since then the numerous units were constructed to get a thermonuclear energy, which should provide the mankind with the energy. However the units exist, institutes and plants were built for this purpose, conferences and meetings are hold, awards and academic degrees are given... The only problem is: we have no thermonuclear energy itself, and nobody knows if it will ever appear.

We have spoken a lot and for a long time about STR – scientific and technical revolution, about achievements of science; the nuclear weapon and nuclear power were created, the flights into the close space were organized, the numerous materials were developed, computers of high complexity, robots and other things were created, and so on. However with all this we should state that the quantity of new discoveries decreases and development has a quantitative character, and even with the studying of "elementary particles" of the

substance we do not use qualitatively new ways but simply increase the power of atom-smasher blindly believing that the new energy level may give us something new, though we have nothing qualitatively new from it.

The presence of “paradoxes”, absence of qualitatively new ideas means that the ideas existing in the natural science are known already, and the natural science and theoretical physics in particular are in a deep crisis. Fundamental researches became unimaginably expensive and the results became poor. It is the second aspect of crisis in natural science, i.e. economic aspect.

But the main feature of crisis is that the theory and methodology of the modern fundamental science appears less useful to help the applied sciences in solving of the problems, which are set by practice. It means that the methods of modern fundamental science became a real hindrance in development of production forces, in usage of nature by the man and therefore, in development of the society itself.

Similar difficulties, which appeared in the most of fields of natural science, are not objective difficulties of development of cognitive activity of the man as we usually consider them. Misunderstanding of the essence of processes, preference of phenomenology, i.e. external description of the internal mechanism of internal essence of phenomena inevitably generates all this difficulties and disorders in the modern physical pattern of the world. This pattern is far from the unified physical pattern of the world.

As we know, the modern methodology of theoretical physics is mainly based on the postulated ways. The scheme is the following. If we take as a basis of analysis the results of the limited quantity of experiments, then we can formulate some contradiction of facts with the existing theories. Further we set the postulates, which are hypothetical statements that they should correspond to the nature, as the author believes. On the base of the postulates the new theory is created, which gives some corollaries. And then these corollaries are compared with the results of new experiments. If the results of these experiments correspond to the predicted ones, then it is considered that the theory got an experimental confirmation and it is true, and therefore the postulates set in its base are also true.

However with all this we miss, that every finite total of facts can be predicted by various theories and these theories often mutually exclude each other. Thus some fact can prove two different theories.

It is interesting to note, for example, that all “experimental confirmations” of special and general theory of relativity by A. Einstein can have different interpretation. Thus STR – special theory of relativity, which rejects the existence of the ether in nature as a principle uses as a main instrument the transformations by Lorenz. Lorenz derived it in 1904 for the case of movement of charges in ether, i.e. the year before

Einstein created his theory of relativity. That is why the coincidence of experiment's results with the calculations on STR can mean the “confirmation” of Lorenz's theory, which is contrary to STR. But we can have other interpretations of the same results. Besides, in every experiment there are unaccounted facts, which are thrown away illegally, if the results of experiments are adjusting to the agreed scheme.

Regarding this the formation history of the special theory of relativity is significant. If in 1880-81 and 1886-87 A. Maikelson and E. Morly really didn't get the positive result in their search of “ether wind”, then in 1901-1905 E. Morly in his new experiment (by Maikelson's advise) got the speed of ether wind equal to 3 km per second. And in 1921-1925 D.K. Miller made a measurement of ether wind on the mountain Mount Wilson (1800 km above sea level). Here he got a value of the wind speed equal to 10 km per second. It is interesting that A. Maikelson himself later in 1929 together with F. Piece and F. Pirson repeated this experiment and got the wind speed on the same place equal to 6 km per second (conditions of the experiment were changed). But up to that time the STR had quite solid positions in science and the leading physicists rejected all the received positive results on ether wind. These results are not recognized until now.

The theory of relativity itself brings the variety of forms of matter movement to the space-time distortions, which in principle do not allow understanding the real essence of phenomena. The conclusions of theory of relativity are applied much more far outside the conditions of its initial experiments and its philosophic conclusions bring us to very sad thoughts.

The situation is not better with the second principle of modern theoretical physics, i.e. quantum mechanics, which was the origin of the quantum theory of field. Quantum mechanics propagates the structure-less essence of particles and absence of any reasons for the particles to have their features, i.e. presence of magnetic moment, charge, spin and so on.

The particles are considered to be the points, i.e. they are non-dimensional. But though this circumstance leads to the energy paradox, this fact does not confuse anybody. Nobody prejudice the initial planetary model of atom, developed by Reserford in 1911, and in view of its limited nature led to the various contradictions, though its success at first was indisputable.

Instead of studying the particular structures and mechanisms of interaction finally all was brought to the external, superficial description, which led to consideration of the probabilistic assessments of the processes.

It came to the situation when some mechanism in phenomena of microworld became an impossible fact. Also the cause-and-effect relationship in the phenomena of microworld became to be rejected, that imposed the principal limits on the cognitive properties of the man.

“Common” mathematical dependencies in the theory of relativity and quantum mechanics got the status of absolute truth and all new theories are checked on the compliance with them. These theories are thrown away if they do not comply.

However we should remember the trivial fact that every physical phenomenon has numerous sides and features and to describe a simple phenomenon we should have infinite quantity of equations. And in no circumstances we can consider that the equations we are working with describes the phenomena completely, whether these are Shredinger’s equations of microworld phenomena, equations of Maxwell for the electromagnetic field or the “law” of gravity by Newton. It means that improvement of the fundamental laws and improvement of their mathematical description should be a general case. Also the aureole of impeccability of some initial formulas today should be dismissed.

Today many people know that the theory of relativity as well as the quantum mechanics in its modern statement leads the scientists from attempts to learn the internal essence of phenomena. It replaces the essence with the external, superficial description based on some particular postulates and assumptions. That is why we shouldn’t be surprised that such an approach appears to be less productive. Narrowness of the directions of researches resulting from such a methodology das not allow us to discover the fundamental processes in nature, which reasonably leads to the situation when many substantial factors in experiments and theoretical researches appears to be unaccounted and many useful possibilities appears to be untapped. The phenomenological method, which took root in the science today, shows its feebleness.

The given situation in the theoretical physics is the evidence of a deep methodological crisis in the theoretical physics. Accumulation of contradictions, dissociation and differentiation of its directions, superficiality of descriptions of phenomena, a misunderstanding of fundamental essence of the phenomena leads to the loss of the leading role at the setting and making of the applied researches. And we have no reason to suppose that this crisis can be solved by the same ways, which are used now by the theoretical physics or by creation of “crazy ideas” according to Niles Borh recommendations (when nobody will be able to understand something).

To find a way out from this deadlock, to solve the accumulated contradictions and move further in fundamental as well as in applied researches we should remember, that the method different from the phenomenological, i.e. dynamic one always have been existing in science. This method makes us to find the internal mechanism of the phenomena, to investigate the structure of material formations and interactions on the fundamental levels of material organization. With the dynamic approach every structure is implied to consist of parts and every part consists of the smaller ones. The phenomenon is just a movement of these parts

and their interaction in some particular case. The explanation of phenomenon as a whole by dynamic approach is led to observation of cause-and-effect relationship between the elements of phenomenon. Description of the external sides of phenomenon by dynamic approach is only an effect but not the main cause of phenomenon as it follows from phenomenology. The dynamic approach implies the possibility of creation of the obvious models on the all levels of matter organization.

The dynamic approach in natural science always justified itself. The main way of development of natural science was a stepwise extension in the structure of matter, transfer to more fundamental levels of its organization. Transfer on the new level always meant the radical turn from the common conceptions, that is an ordinary revolution in physics and provide the way out of the crisis.

The history demonstrates us examples of effectiveness of the dynamic approach to the solution of accumulated contradictions. When the quantity of various molecules became huge, atoms were set in the consideration. And when the kinds of atom became huge, than the concept of “elementary particles” appeared, which constitute the atoms.

With this the structures of higher levels of matter organization became clear. It appeared that material formations of the higher hierarchic levels of material organization are different from each other in the set of elements, which are the material formations of the lower hierarchic levels. And these lower formations, for example atoms or “elementary particles” at first has been provided with the simplest, the most essential attributes, it reflected in their names: atom (“indivisible”), “elementary particles”, i.e. the simplest particles. And the crisis has been solved well.

Disclosure of the structures, understanding of the internal mechanism gave a chance to the directed actions. The directed researches were made, the new methods appeared, and increase of variety of the higher level didn't frighten anybody, because the reasons were clear.

Absolutely new perspectives of theoretical and applied researches and adaptations were opened. The next revolution in physics showed its new possibilities to the whole world. These new possibilities immediately became the property of applied scientists and served to mankind.

Thus in VI-IV centuries B.C. took place the transition of natural science from the nature in a whole to the substances, i.e. earth (solidity), water (liquid), air (gas) and fire (energy). This gave the development of philosophy.

In XII-XIII centuries A.D. different substances were set into consideration, this gave the development of pharmacology.

In XVI century the idea of molecule (small mass) was introduced and mechanics appeared.

At the end of XVIII century a concept of atom was introduced, and chemistry and electricity appeared.

At the end of XIX- beginning of XX century an idea of "elementary particles" was introduced, and it stimulated the development of nuclear power.

Maybe today we must take into consideration the fact that the number of "elementary particles" constitutes from 200 to 2000 (it depends on calculation), that they all can transmute one into another, and we can apply the same method and introduce into our consideration the new, more "elementary" particle, new "brick" of the Universe. Then we will find that all so called "elementary particles" of the substance are the complex formations built from these "bricks". Thereby we legalize the building material for the "elementary particles" and a possibility to analyze the structure of these non-elementary particles of the substance appeared. This particle should be called "amer", because it was called in such a way by Democritus. In his opinion the amer is a part of an atom and is indivisible particle of matter, and the assembly of amers is ether. Ether is a medium, which fills all the world space and it is a building material for all kinds of substance. It provides all kind of interactions with its movements including the nuclear interactions, electromagnetic and gravitational and although some unknown ones.

***Just so we should do the next, sixth revolution in physics, which should give the new possibilities to the mankind to coexist with the nature as its part.***

### **The Etherodynamics**

It is experimentally proved that the physical vacuum can generate the "elementary particles" of the substance. It makes us to believe that the components of such particles, its "bricks" are already exist in the physical vacuum. Therefore the uniformity of physical vacuum matter and the matter of "elementary particles" of the substance is presented. But the "elementary particles" of the substance is the base of the atom structure – their nuclears and electron shells and the atom is the base of molecular structure in the substance, and the substance itself is the base structure for all bodies up to the stars and galaxies. Thus we can state the uniformity of essence of all material formations, which approves the idea of monism in the Universe on practice.

With the selection of model of the physical vacuum the most important is to determine the general physical invariants, i.e. the categories, which are permanent with all the transformations of material structures. The role of general physical invariants can be played only by the categories, which are absolutely general and their determination should be made from the analysis of the experimental data but not from the postulates. A simple analysis shows that the absolutely general categories

are the matter, space and time, because in all real processes the matter takes part and these processes take place in the space and time. It means the movement of matter. And all these mean that four categories, i.e. movement, matter, space and time should be considered to be initial and general physical invariants in all constructions and argumentation. They should not be changed with any circumstances and they should be the arguments but not the functions when we are considering some physical dependence of the values from each other.

General physical invariants appears as the initial values and they initially have a range of properties, which are: presence in all structures and phenomena; primary position; conservation for any transformations; unlimited divisibility; additivity, linearity and unboundedness. The enumerated properties result in the following:

- movement and its components, i.e. matter, space and time could not be ever created and can not be destroyed anyway;
- the real physical space is linear (Euclidean);
- the real physical time is linear and unilateral;
- there are no preferable scales, and that's why on all the levels of matter organization the same physical laws are acting, in particular there are no special laws for the microworld.

The result is that the physical vacuum is filled with the medium, which properties can be defined on the basis of analogy with the common microscopic mediums.

Isotropy of space, small resistance to the movement of bodies together with the high specific energy lead to the one conclusion that ether, i.e. the medium, which fills the world space is a gas with the common properties of a real viscose coercible gas.

As far as on all the levels of matter organization the same physical laws are acting and ether is a common gas, then its parameters can be defined on the base of analysis of known physical non-equilibrium processes by mathematical tool of the common gas mechanics.

In the base of calculation we should set the corresponding etherodynamic models of well-known physical processes and interactions. To calculate the parameters of ether we took the energy content of electrical field of the proton and a strong nuclear interaction of proton and neutron in the deuterium as initial ones. Principally we can take any other initial parameters.

As the author showed in his papers, the only form of gas movement, which provides the localization of coercible gas in the limited volume, is a toroidal vortical movement. With this the steadiness of toroid essentially increases if it has also a circular movement of the toroid.

The received spiral vortical toroid of the coercible ether is identified with the proton, i.e. the main part of the microworld.

why the energy of circular movement of ether around the proton is the energy of its electrical field.

Neutron is different from the proton only with the fact that on its surface the gradient boundary layer is created, which prevents the penetration of circular movement to the internal medium and it is considered as absence of electrical charge of the neutron. That's

Comparison of an expression for the energy of mechanical circular movement with the known expression for the energy of its electrical field leads us to a conclusion that the electrical charge is the circulation of quantity of orbital movement of ether's density on surface of the proton. With this the dielectric

## Qualitative definition of the main properties of ether

| Properties of the real world   | Properties of ether  |
|--|--|
| <b>The macroworld</b>  |  |
| Invariants of all physical phenomena – matter, space, time, movement   | Invariants of ether – matter, space, time, movement  |
| Isotropy of the features of substance and fields in the space  | Natural filling of space by ether without any vacuum or dislocations   |
| Small resistance to the movement of bodies   | Small density and viscosity  |
| High speed of spreading of the interactions  | High elasticity  |
| <b>Microworld</b>  |  |
| Mutual transformation of all elementary particles  | Possibility to form the various structures of the substance  |
| Condition of mutual transformations of the stable “elementary particles” is the mutual impacts with keeping of mechanical parameters of the movement, which are energy and impulse | Elements of ether should provide a possibility of mutual impacts with keeping of mechanical parameters of the movement, which are energy and impulse |
| Keeping of the matter in the boundaries of stable “elementary particles” of the substance  | Presence of the forms of movement, which provide the keeping of ether as a component of material formations  |
| Difference in the specific densities of “elementary particles” of the substance  | Coercibility of ether in the wide limits   |

### Conclusion: Ether is gaseous substance with the properties of real gas

| Parameter                                 | Value                             | Unit  |
|---|-----------------------------------|---|
| <b>Ether as a whole</b>                   |                                   |   |
| Density                                   | $\rho_e = 8,85 \times 10^{-12}$   | Kg m <sup>-3</sup>                              |
| Pressure                                  | $P > 1,3 \times 10^{36}$          | H m <sup>-2</sup>                               |
| Specific energy content                   | $w > 1,3 \times 10^{36}$          | J/m <sup>-3</sup>                               |
| Temperature                               | $T < 10^{-46}$                    | °K  |
| Speed of the first sound                  | $v_1 > 4,3 \times 10^{23}$        | m c <sup>-1</sup>                               |
| Speed of the second sound                 | $V_2 = c = 3 \times 10^8$         | m c <sup>-1</sup>                               |
| Coefficient of temperature conductivity   | $a \approx 4 \times 10^9$         | m <sup>2</sup> c <sup>-1</sup>                  |
| Coefficient of thermal conductivity       | $k_t \approx 1,2 \times 10^{89}$  | kg m s <sup>-3</sup> °K <sup>-1</sup>           |
| Kinematical viscosity                     | $\chi \approx 4 \times 10^9$      | m <sup>2</sup> s <sup>-1</sup>                  |
| Dynamic viscosity                         | $\eta \approx 3,5 \times 10^{-2}$ | Kg m <sup>-1</sup> s <sup>-1</sup>              |
| Adiabatic index                           | 1-1,4                             | -   |
| Thermal capacity for constant pressure    | $C_p > 1,4 \times 10^{91}$        | m <sup>2</sup> s <sup>-2</sup> °K <sup>-1</sup> |
| Thermal capacity with the constant volume | $C_v > 10^{91}$                   | m <sup>2</sup> s <sup>-2</sup> °K <sup>-1</sup> |
| <b>Amer (the element of ether)</b>        |                                   |   |
| Mass                                      | $m_a < 1,5 \times 10^{-114}$      | Kg  |
| Diameter                                  | $d_a < 4,6 \times 10^{-45}$       | m   |
| Quantity in the unit of volume            | $n_a > 5,8 \times 10^{102}$       | m <sup>-3</sup>                                 |
| Medium length of the free path            | $\lambda_a < 7,4 \times 10^{-15}$ | m   |
| Medium speed of the thermal movement      | $u_a = 5,4 \times 10^{23}$        | m s <sup>-1</sup>                               |

permittivity of vacuum appears to be the mass density of ether. The measure "Farads per meter" corresponds to the measure "kg per m<sup>3</sup>" which allows us to define the density of ether in near-Earth space, which is equal to  $8,85 \cdot 10^{-12}$  kg per m<sup>3</sup>.

Strong nuclear interaction is an interaction of nucleons through their general gradient boundary layer. The pressure of ether in this layer decreases due to the high gradient of speeds and the external ether push the nucleons to each other. Since the energy of proton-neutron bond in the deuteron constitutes 2,2245 MeV, the distance on which the interaction decreases to zero is equal to 1 Fermi and the square of the cross-section of nucleons is equal to  $2 \times 10^{-30} \text{m}^2$ , then the pressure in ether will be not less than  $2 \times 10^{32}$  kg/m<sup>2</sup>. But according to the refined data the pressure constitutes not less than  $1,3 \cdot 10^{36}$  kg/m<sup>2</sup>, accordingly its energy content is equal to  $1,3 \cdot 10^{36}$  J/ m<sup>3</sup>. The other parameters of ether are defined by the common formulas of gas mechanics. The parameters of ether in the near-Earth space and the parameters of amer (its molecule) are shown in the table below.

As we know, nucleons have the highest energy of interaction when they are components of alpha particles. In this case the energy is equal to 7,1 MeV. We can simply explain it in etherodynamic of the alpha particle: every nucleon is connected with the others through two surfaces, in comparison with the deuteron it immediately gives  $2,2245 \times 2 = 5,225$  MeV, the other part of energy is additionally gathered due to the deformation of proton's vortexes and extending of the square of their connection since ether push them to each other. Also part of the energy is derived from the common flows of ether inside and outside the alpha particle. You can see it clear on the model.

From this we can immediately receive the advisability of construction of the atomic nucleus on the base of alpha particles (even-even nucleuses), i.e. nucleuses of helium, beryllium, carbon, oxygen, neon, and magnesium up to zinc. We can naturally explain the changes in energy during increasing of the quantity of nucleons in the nucleuses (considering their deformation) that is so called "magic nucleus", which are the basic structures for all isotopes of oxygen, calcium, ruthenium, gadolinium and so on. From the structure of nucleuses we can get the natural explanation of their spins, form co-efficient, magnetic moments and so on. Thus etherodynamic modeling appeared to be very productive.

Consideration of the properties of proton allows making a conclusion on its three possible states: as a proton itself, as a neutron or an atom of the oxygen. In the first case the toroidal as well as the circular movements of ether exceed the bounds of the body of proton and the spiral flows of ether are formed around it. They have the same spiral factor as the body of proton. These flows are considered to be the magnetic field (toroidal movement) and electrical field (circular movement). It should be mentioned that Bio-Savar law can describe

In the second case the toroidal movement exceeds the bounds of the body of proton and circular motion is localized in the bounds of gradient boundary layer that is why the magnetic moment remains existing and the electrical charge is absent. In the third case there is the circular movement around toroid and toroidal flows are locked not though the body of proton like in the first case but outside of the body. This leads to the change of sign of the spiral movement to the opposite sign. This is considered to be the electrical field, which has a sign of charge opposite to the proton case. This adjoined vortex is the electron shell of the atom.

Thus we can get the vortex model of atom and on this base we can construct the models of electron shells for any atom or molecule, with this all quantum correlations remain valid and they get a simple interpretation. In particular, the psi-function have the sense of the mass density but it is not the "density of probability of appearance of the electron" that Eddington knew in 1940.

The corpuscular-wave dualism gets the natural explanation, because the structure of photon appeared to be similar to the known "Karman's track", which consists of linear vortexes situated as a checkerboard pattern with regard to each other. Here the length of wave is the distance between centers of co-directed vortexes of one range and the mass is the mass of every vortex. As to speak about the de Broglie waves, then their formation with the movement of particles can be explained only as a result of particle's movement in the medium, but not in an empty space.

If the strong nuclear interaction is the result of decrease of the pressure in the gradient field of the speeds of ether flows between the nucleons, then the weak nuclear interaction is the result of passing of the surface wave along the body of nucleons. If the crests of the waves from two nucleons are passing though the mutual boundary layer, then the nucleons slide apart and the forces of strong interaction become weaker. Beginning from some distance the forces of repulsive circular movement (that is the electrical field) become strong enough to destroy the nuclear. The waves can be created by the external impact of other particles (induced radioactivity) or they can be a result of development of the oscillations in the complex nuclei (natural radioactivity).

Finally, the gravitational interaction as the most general one can be explained only on the base of the most general kind of the movement of ether, i.e. by means of the thermo-diffusion. When ether is flowing in the gradient area on surfaces of the particles of any body, the temperature of ether decreases and around every body the zone of lower temperature of ether is forming. Since the gas pressure is proportional to the temperature, then around every body a zone of lower pressure is forming. The gradient of this pressure stipulates the mutual attraction of the bodies as well as absorption of the surrounding ether by the bodies. Due to this process the mass of all the bodies is

increasing constantly. We are the first who analytically got the law of gravity of the masses from the known equation of thermal conductivity. Appeared that on the relatively small distances (in the bounds of the Sun System) the law of gravity by Newton remains valid, but on the larger distances the sudden decrease goes on (Gauss integral), which naturally solves the famous Zelinger's paradox of gravity.

As a conclusion we should note that in the bounds of a stable galaxy of a spiral kind there is the circulation of ether. Ether moves from the periphery of the galaxy to its center (nucleus) by two spiral branches. This becomes apparent as a weak magnetic field (8-10 micro Gauss). In the nucleus of the galaxy there is the impact of two strings as well as there is formation of the spiral

toroidal circles (protons). Then the protons form the adjoined vortexes around themselves (electron shells) and from the proton-hydrogen gas the stars are forming, which are moving to the periphery by the same branches. There they dissolve in ether at the periphery since the protons will lose their energy and stability due to the viscosity. Ether which have got the freedom will return to the nucleus of the galaxy and this process is going on in our galaxy for hundreds milliard years and it will keep going until the new center of vortex formation will begin to concentrate ether. Then the new galaxy will appear and our galaxy will disappear. But it will not happen soon and we have enough time to understand that we should return to the concept of ether in modern science.

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## Experimental Demonstration of Cosmic Influence on the Earth Life in N.A. Kozyrev's Researches ("On the Influence of Time on Matter")



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*Editor's note: this article represents a part of the big scientific conception "World models in the new scientific progress". On applying of this conception a great number of practical technical devices have been created (as an example of such device we offer the description of universal electrical bio-heater, which was created by the group of researchers from Bishkek, Kyrgyz Science Technical Center "Energy" during the work on ceramic electroconvector).*

***We have to note that the position of our editorial board concerning "time" and Kozyrev's work is not in a good correlation with the authors' one.***

Nicolay Alexandrovich Kozyrev scientifically and experimentally discovered the action of relations' interconnection, which was falsely named as time. Time cannot cause action because it is absolute and does

not have any physical sense (Samat Kadyrov. Monograph "Theory of unified field").

**Author's note: relations' interconnection is an interaction of structurally similar objects. It is a nuclear resonant gain-frequency process: in a stationary electric field, which is modeled by systematic organization, there is a development of similar to structural one, in-focus rays of powerful regular coherent radiations. These coherent radiations are determined by properties of chemical components of interrelated substances.**

According to N.A. Kozyrev, it is ought to expect not identical density of relations' interconnection in space. Some processes decrease density; others on the contrary increase density of relations' interconnection. Action of the increased density is weakened according to the law of reversed squared distances; it is shielded by a solid matter, at thickness about 5cm, and is reflected by a mirror, according to the familiar optics law. The action of the decreased density on a detector is shielded, but does not reflected by a mirror. Properties of a matter can be changed under the influence of relations' interconnection. In this sense there is a big advantage in changes of electric current conductivity of resistor, which is brought into Witson bridge and is located near some process. For instance, in order to increase density it is useful to realize the process of evaporation of a volatile liquid; and for density decrease the process of cooling of a warmed-up agent can be realized. Due to these processes, change of conductor resistance is actually realized with opposite signs. Increase of density of the conductor with positive temperature coefficient leads to decrease of its resistance. At negative temperature coefficient there is an effect of the opposite sign, in the direction of changes, caused by temperature changes. Such correspondence to fall in temperature should be observed at changes of other properties of a matter, **because disorder in a matter structure is reduced along with fall in temperature.** The researches have shown the following results at the resistor, which was situated near processes of acetone evaporation on cotton wool and of solution of sugar in water. The