

Method and Device to Control Temporal Parameters of Physical Processes by Means of Changing of Energy Density of Space

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The report was presented at the conference "Time Machine", April 12, 2003, Moscow

This invention belongs to the methods and devices to provide control on rate of physical processes (that include the process of the existence of matter in space-time) by means of increasing or decreasing of energy density of space (i.e. energy density of physical vacuum or density of the aether).

Let us consider the history of the invention:

Earlier there were proposed some methods and devices to influence rate of physical and chemical reactions, biological processes or period of oscillation of the system. In the works by N.A. Kozyrev [1] there is a description of the experiments on the influence of some process (for example, process of evaporation or crystallization of matter) upon the period of another process, which serves as a detector and can be compared with reference oscillation process. In one case, rate of oscillations of the detector decreases in the surrounding area near the process of matter evaporation. In another case, rate of detector oscillations increases in the surrounding area near the process of matter crystallization. If we use a term of "entropy" then it is possible to say that the processes which are accompanied with entropy increasing (for example, conversion of matter from solid state into liquid one) influence on the matter (surrounding processes) in such a way that entropy of systems decreases. In another case, for example, near the process of crystallization, entropy of systems increases in the surrounding area near this process. Kozyrev used the term of "wave of density of time" and he made a conclusion that in addition to "directivity" of time (time course) there are active properties of time, for example, "density of time".

To develop this approach for applied purposes it is necessary to use in-depth analysis of the physical sense of the "time density" notion. Connection of notions about "time directivity" and "entropy of the system" was demonstrated in the work by Ilya Prigozhin "Introduction into thermodynamic of irreversible processes", 1964 [2]. In the work "Quantum fluctuations of vacuum in curved space and theory of gravitation" by A.D. Sakharov [3] the conception of vacuum structure was suggested. In the USA the work "Can the vacuum be engineered for space flight applications?" by H.E. Puthoff [4] is well-known. The author considered the applied aspects for study of vacuum structure and described the method and device to obtain propulsive force by means of changes of vacuum properties.

Substantive conception of time and methods for creation of waves of energy density were also considered by Prof. K.P. Butusov in the work "Time is a physical substance", 1991 [5]. In the book "What is The Time?" by Yu. G. Belostotsky [6] the connection between the notions of time and aether was demonstrated. This connection was considered from the point of view of astrophysics there.

We can say also that modern conception of aether is successfully developed by V.A. Atsukovsky in his works [7].

In my articles, for example, "Physical principles of the Time Machine" [8], it was demonstrated that to develop experimental works on the topic it is useful to clarify the terminology and to consider "**waves of time density**" as **longitudinal waves of energy density in space**. In this case the notion of "time density" has a physical sense of energy density (aether density).

This approach can be realized practically by means of classical electro-technical and radio engineering methods and it is a development of aether-dynamical conception on the nature of electricity and magnetism by M. Faraday, "Experimental researches on electricity", volume 3, [9].

Let us consider a usual bipolar magnet from the point of view of aether-dynamics. Then it is possible to say that it is inflow and outflow of aether, i.e. it is a balanced energy system which does not change energy density in space. In this case it is evident that creation of magnetic monopole or modeling of quazi-monopole by means of electro-dynamical methods is a technical basis to create some local change of energy density in space.

Electric processes could also be used alongside with the magnetic phenomena. For example, in another book "Symmetrization of Maxwell-Lorenz equation" by Prof. Butusov [10] the creation of longitudinal wave was also considered. It was demonstrated

that electrically charged sphere can radiate longitudinal wave when the sphere radius is changing, i.e. when its surface is changing while the value of electric charge is the constant.

One more well-known method is described in the book “Experimental gravitonics” by Polyakov [11]. There is a consideration of the generation of gravitational waves at the high-frequency magnetization and demagnetization of ferromagnetic material, i.e. at the powerful volume magnetostriction. Since at this phenomenon there are changes of matter density (i.e. changes of energy density in space, which is occupied by matter), then volume magnetostriction is a special case of changes of energy density.

Earlier Vadim A. Chernobrov has described method and device to control temporal characteristics of physical and chemical processes by means of creation of the magnetic monopole (quasi-monopole). In this magnetic mono-pole there is a convergent wave, which is created by several sources situated at the spherical frame. According to this method in the multilayer spherical structure where every layer (the so called “electromagnetic work surface”) is an assembly of electromagnets, by means of series connection of the layers it is created the wave, which converges to the center of the device. The device has the same outside magnetic poles of the electromagnets (and the same inner poles) and thus model of macroscopic magnetic monopole is created.

We assume that at in-phase operation of all sources of waves, interference of longitudinal waves provides some change of value of energy density of space in the focus of the system.

Experimental facts prove that detectors installed in the center of the device (for example, mechanical or electromagnetic oscillators) show change of period of their own oscillations. We have protected them by shielding from heat radiation as well as from another kind of electromagnetic influence. Thus it is possible to assert that the detectors decelerate or accelerate their oscillation period depending on the energy density, which is generated in the center of the device.

However for the experiments made by means of such a device, accurate adjustment of all wave sources is required to provide their in-phase operation. At the same time, operational stability of the system depends on the operational stability of each of the wave sources. Increase of the impulse frequency causes increase of the effect; however, it is limited by the parameters of electromagnets and generator of impulses. Besides to increase the effect it is necessary to use more powerful energy sources since current in the windings of electromagnets determines the value of the magnetic field of the created quasi-monopole.

Since the efficiency of such systems directly depends on the frequency and the value of changes of energy density in space, then in the next version of realization of this technology we suggest using of the plasma shells instead of electromagnetic working surfaces. This will allow significant improving of specific parameters of the device.

Thus let us consider general engineering principles of operation and outline the ways to develop this method. In the Fig. 1 a three-layered electromagnetic emitter is represented. This electromagnetic emitter is designed according to the invention in which the directed radiation of wave of energy density is created along the axis of the device.

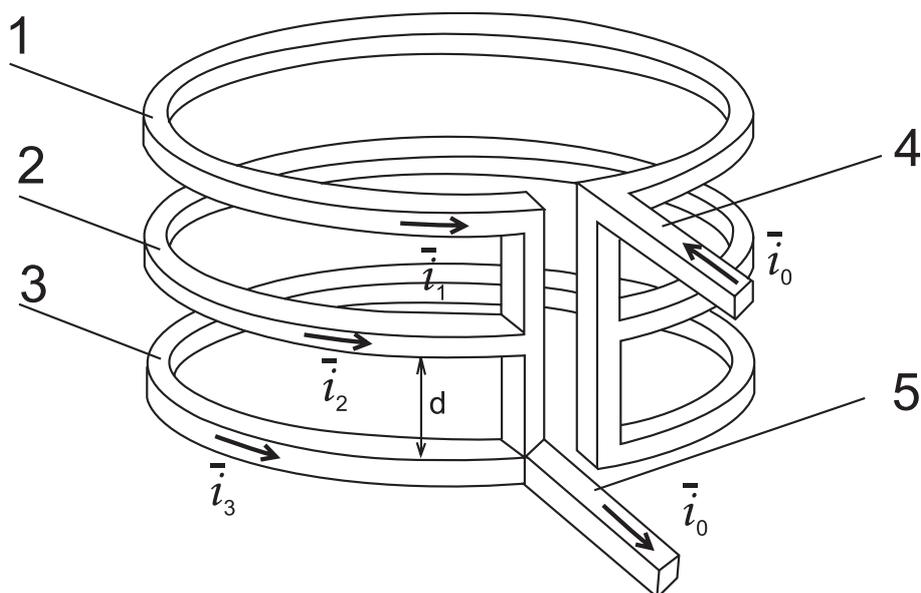


Fig. 1. Three-layered electromagnet

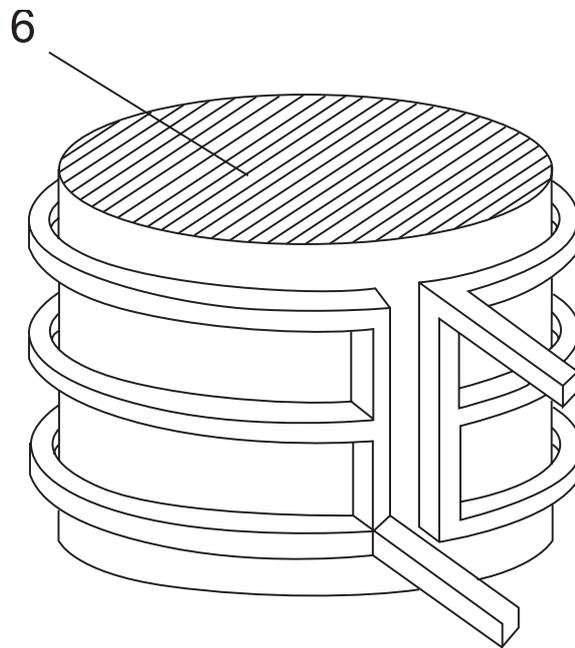


Fig. 2. Three-layered electromagnet with ferrite core

The device is designed according to the idea by Vadim A. Chernobrov for creation of the directed wave of energy density by means of phase shift in propagation of impulse front in three current branches, namely i_1, i_2, i_3 . These branches are displaced along the electromagnet axis at some distance d .

The device works in the following way. When the pulsed generator is activated, front of current pulse i_0 appears at the output 4. Impulse front at branch 1 advances impulse front at branch 2 that is caused by spatial shift of current branches 1, 2, 3 relatively to each other along the electromagnet axis at the distance d . Impulse front at branch 2 in its turn advances impulse front at branch 3 for a certain time T . The second output of the electromagnet 5 is placed in such a way that impulse front at branch 1 will phase lag behind the impulse front at branch 2 (which in its turn will phase lag behind the impulse front at branch 3) for the same period of time T . Therefore at branch 5 the united impulse front is generated again.

Time T can be calculated in the following way:

$$T=d/c \text{ (seconds)} \quad (1)$$

where c is a constant of propagation of impulse front. This constant is known as velocity of light.

At each impulse the T (i.e. value of relative lag of impulse front) is constant value. Thus high-frequency consequent excitation of layers of the electromagnet appears at each impulse. The frequency of the excitation is calculated by the following way:

$$f=1/T \quad (2)$$

where T is relative lag of impulse front in seconds.

There is an example of frequency calculation: for the shift distance $d=7$ mm we can calculate a lag $T = (7/2.997924) \times 10^{-11}=2.335 \times 10^{-11}$ (seconds) and frequency $f=1/T$ approximately comes to 4.28×10^{10} (Hertz).

Thus this design of three-layered electromagnetic emitter allows creating the waves of super-high-frequency band (for example of millimeter range) without using of semiconductor and other radio components.

It is very expediently to use the electromagnets designed with magnetostrictive material cores, that will significantly increase energy density of the longitudinal wave, which is generated by the multilayer electromagnet. In the Fig. 2 there is an emitter with the core. In the case of high-frequency ferromagnetic magnetostrictive materials 6 the efficiency of emitter operation significantly increases.

In the Fig. 3 there is represented spherical distribution of emitters 7 at the upper 8 and lower 9 hemisphere of the frame which could be opened in order to place detectors and different objects inside it. It can also allow researching in what way the changes of density of space energy influence the properties of different materials, velocity of physical and biological processes as well as chemical reactions. The installation of detectors 10 inside the device is shown on the Fig. 4.

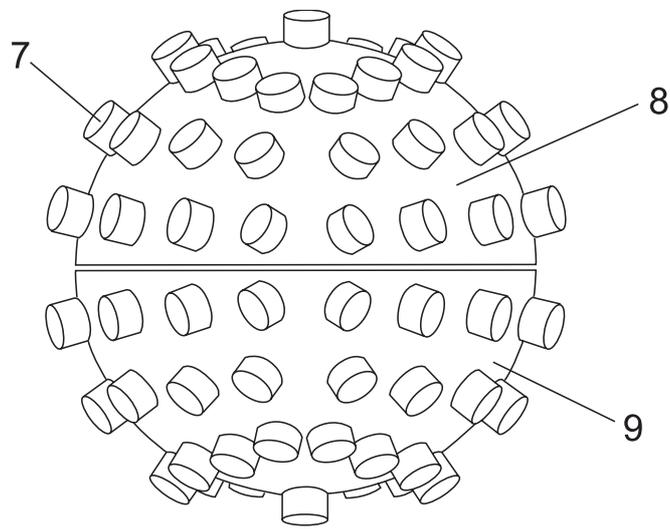


Fig. 3. Spherical design

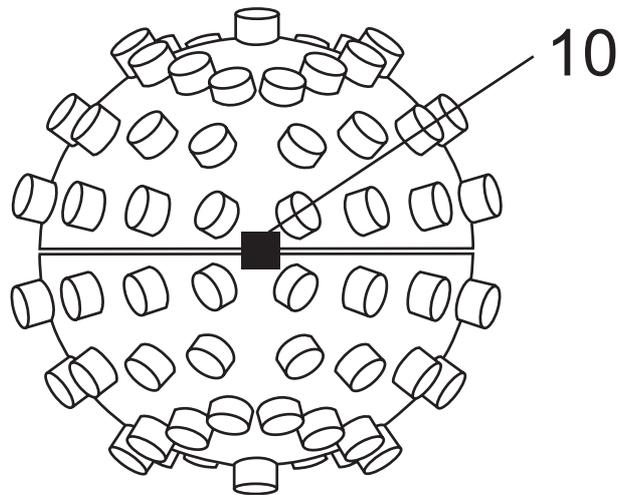


Fig. 4. Detectors inside of the system

Another version of design is represented on the Fig. 5, where the suggested method is realized by means of spherical electric capacitor with three coats 11, 12, 13. Each capacitor coat is connected to the outlet of three-phase pulsed generator 14.

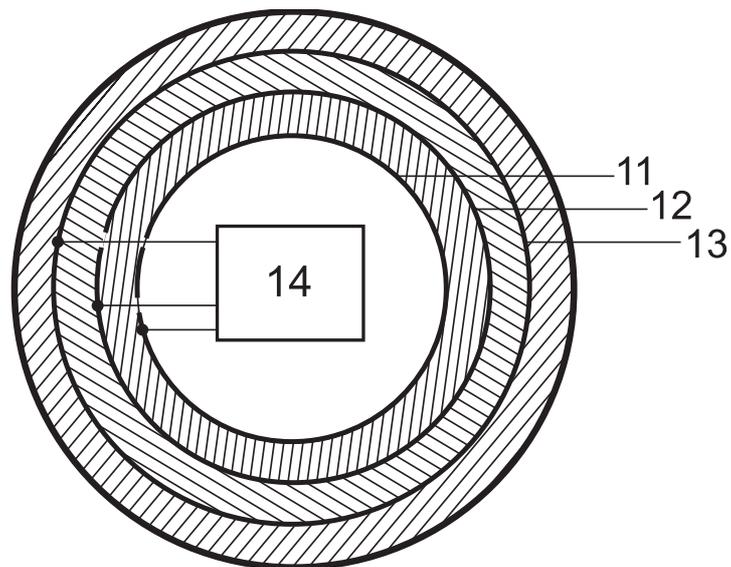


Fig. 5. Three-layered spherical capacitor

In this case the wave of energy density is created without electromagnetic emitters and this principle is not related to the modelling of magnetic quasi-monopole. The device operates due to the control unit, which provides the high-frequency changes of electric potential at each coat in such a way that the mode of high-frequency converging or diverging wave of energy density is created. In fact it is standard three-phase generator but it produces not the rotation of the rotor of some electromotor but “**compression**” or “**decompression**” of aether. Aether is “pumped” in the center of the device or “pumped out” of the center.

In this case there is no need to tune separate sources of waves to make the device work in in-phased mode. It ensures reliability of the device operation if to be compared with the quasi-monopole. Besides much less energy is necessary for the processes of charging and discharging of multi-layer spherical electric capacitor than for creation of magnetic field by means of conductivity currents.

Since efficiency of such systems directly depends on frequency and value of changes of energy density in space then we suggest using of plasma shells instead of electromagnetic work surfaces for the next version of the device. It will allow significantly improving of the specific parameters of the device. For that it is enough to place the electrodes of the multi-layers capacitor in low-pressure gas area and these electrodes should be made as gauze electrodes. At that the wave is created in plasma, which is excited layerwise by several gauze electrodes placed in spherical space between inner and outer spherical bodies of the device. Therefore this version of design of the device can be considered as **the manipulation of plasma method**.

Fig. 6 is plan of one more design version. It is made as inner frame 15 and outer frame 16, space between them is filled with some gas 17. Three electrodes 18, 19 and 20 are connected to the three-phase pulsed generator 21. **Consequent excitation of plasma layers by electrodes 18, 19 and 20 creates the wave of energy density.** Propagation of this wave can be directed both to center of the device and from the center of the device.

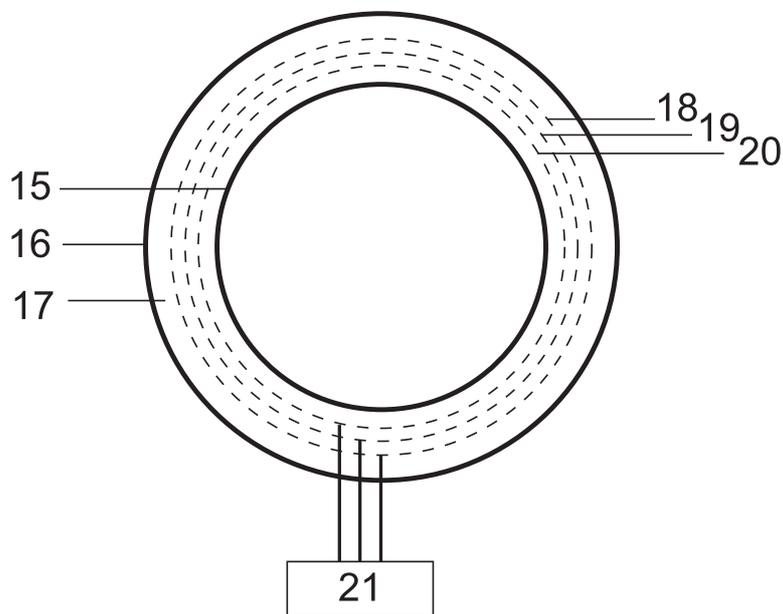


Fig. 6. Wave in plasma

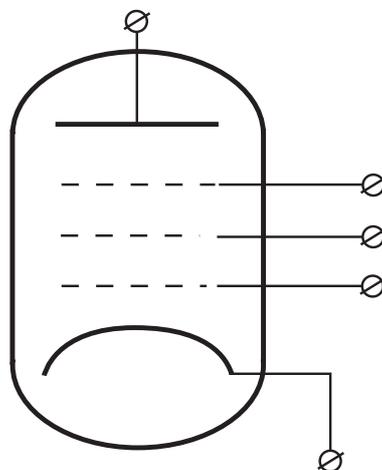


Fig. 7. Schematic electric circuit

On the Fig. 7 there is a schematic electric diagram of the design.

Let us make some conclusions. The work on time control is just started. We clearly determine main physical principles of operation of such devices, which can change the aether density in some given volume of space and thus influence temporal parameters of any physical processes. The small experimental results today allow us making real positive conclusion on availability of this method and on the possibility of its practical application in applied aspects. The first aspect is antigravitation propulsion technology and we are developing the methods to detect mass (weight) changes in the time control experiments to prove this applied possibility. Other area is medical applications of the changes of the aether density.

Russian Federation patent claim #2003110067 was filled April 9, 2003. At present time we are interested in marketing for this technology as well as in search of additional investment and partners.

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