

So, at the first glance, the world of elementary particles is a two-polar world. Then, if we consider the inner three-polarity structure of the particles, then this world can be described more clearly as a **multilevel hierarchy organization**. Each three-polar element (quark) can be clock-wise or counter clock-wise rotating structure that provides possibility of quark annihilation and possibility of negative, positive or neutral electric properties of elementary particle (quark complex).

From this we can consider the usual annihilation of positive mass-particle and negative mass-particle (for example, positron and electron) as compensation of inner motion in their three-polarity structures. Energy, which corresponds to this inner motion, should be released and radiated in this process of annihilation. **More deep and powerful annihilation is a compensation of inner structure of each element of the three-polarity complex. It can be called the "quark annihilation". Application of this principle in energetics allows much more powerful energy sources than any modern nuclear plants.**

According to our previous suggestion about 4-polarity, it is possible to assume that **inner structure of any quark consists of four peer elements, which are situated in space as a tetrahedron complex. By analogy with Poliakov's conception of electron, for quark we can assume 4-polar compensation, which**

was discussed above, Fig.3. More detailed description of this level of inner structure of matter requires more deep understanding of physical sense of time. **The technology of annihilation in this case is the time rate control technology.**

To my mind, this multilevel hierarchical approach to the space-time engineering is very easy since it directly follows from geometrical laws and it promises to be productive in the frames of ether conception. In this case, any "changes of density of energy" mean "changes of ether density". Multipolarity or dimensionality of space-time in any process is related with parameters of designed process. Thus, studying of multipolarity becomes an applied science, which allows developing of new technologies with new physical and mathematical basis.

References

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High Efficient Electromagnetic Transformer

Alexander V. Frolov

This month we have very good news from Thomas Bearden and his team. **USA patent #6,362,718 granted on March 26, 2002 for "The Motionless Magnetic Generator"** is one more example of extracting energy from a permanent magnet, i.e. new kind of alternators.

Sure, it is just my own opinion to say that it is an alternator without moving parts. Perhaps the authors are not in agreement with this point. But main fact is that "this system works beautifully and produces COP=500%" as Thomas E. Bearden said. Other inventors are Stephen L. Patrick, James C. Hayes, Kenneth D. Moore. Production and sales will start next year as 2500-Watt system, which will generate electric energy free. There is Magnetic Energy Ltd Company, which will develop this technology.

In description of the principle Thomas Bearden said that it is not usual electromagnetic transformer but a new type of the system, which use longitudinal electromagnetic waves of the vacuum.

In article "MEG Scalar Energy Device..." by Bill Morgan (wmorgan@nycap.rr.com), March 28, 2002 we can read

standard description of the technology: "The MEG provides electrical energy by tapping the longitudinal electromagnetic (EM) waves, which exist in almost infinite abundance in the vacuum of space. This ocean of energy which permeates everything is sometimes called the "zero point" energy..." It is obviously the authors are not interested to disclosure their know-how, even if they have it. Really I wonder in this point since Tom wrote me about his participation in this project (see his letter below). He was included in the team as adviser to find some acceptable scientific explanation for some experimental facts. So, one more time we can see example of empirical science, i.e. priority of experimental work. Only way to find something really new is experiments but not a theory. The theory can predict something new but it will be something that is logically follows from previous technologies and knowledge. The Experiment can produce really new knowledge. **So, it is not a fact that the explanation by Bearden's theory or by other scalar and zero point energy theories can help in development of the technology.**

I have to note that Dr. Gennady Nikolaev and his well-known Russian research team in Tomsok developed the same approach to magnetism for many years. Our magazine New Energy Technologies #2, 2001 have published Nikolaev's article (and some photos from his laboratory) on the longitudinal magnetism. But let's leave the theory since now it is more useful to discuss basic principles of the system than to develop theoretical dispute about scalar and vector potentials.

My own research on this topic was started from investigation of principles, which provide high efficiency of well-known Gramm's Generator (Zenob Teofil Gramm, 1826-1901, Belgium – France). His patent of 1869 describes electrogenerator, which use ring rotor (core of some ferromagnetic material). This rotor is placed between two magnets. Main aspect of this superposition is two opposite magnetic fluxes in the ring core that provide high efficiency of the system due to their mutual compensation.

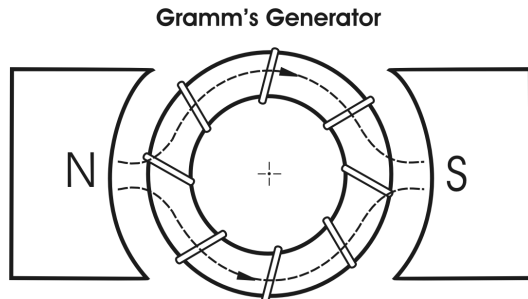


Fig.1

It is obviously that total secondary flux (induced in the generator after the load is connected) cannot produce back electromotive force and back torque to decelerate rotation due to simple fact: in this design the magnetic flux is separated and there are two opposite magnetic fluxes in the ring core. Due to the principle "Let's separate it and we'll take power" rotation in this generator can be organized with small input power and it is not important if the load is connected to the generator or it is not connected. Power output of this system is limited by design of the magnets, their flux (magnetic field intensity) and velocity of rotation only.

At the beginning of electrotechnical age this type of generators was very popular, production and sales were successful. But then other type of generators became more wide applied for industry. It is motor-generators, which use the drum rotor. If we'll power it from external source then it can be used as motor. But just this principle produces back torque in generator (i.e. deceleration of the rotor) in the load mode. So, modern motor-generator of the drum rotor is not over-unity system.

At first I have published my ideas on it in New Energy News magazine, USA, June 1994, p.9. It was article "Description of Φ -Machine and Φ -Transformer". The term " Φ -Machine" is connected with Φ -shape of magnetic flux force lines in the core that is principally important for this type of system.

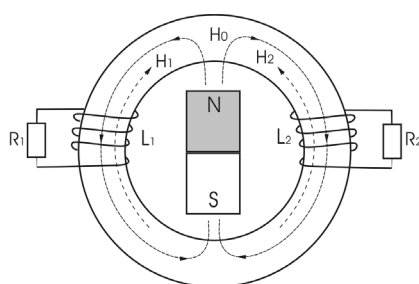


Fig. 2

Fig.2 shows ring ferromagnetic core, two coils L_1 and L_2 , permanent magnet as the rotor. Primary magnetic flux with intensity H_0 is concentrated in ferromagnetic ring. The structure of this field consists of two parts. The directions of two fluxes H_1 and H_2 (generated by coils) are in opposition to each other. So, total effect of secondary flux onto primary source is equal to zero.

The general principle is the creation of a bidirectional process. It is not possible to get free power in one load due to connection between cause and effect but it is possible to create two opposite effects for one cause. Total effect is equal to zero in this case.

Besides two opposite processes it is possible to create three or more processes, which should compensate total effect to remove back torque or back electromotive force (EMF). Multidirectional processes are not a principal theoretical question but just a design aspects.

One more interesting example of the technology was noted by Dr. Harold Aspden in article "Three Experiments on Free Energy," Space Energy Newsletter, Dec. 1993. According to Dr. Aspden this experiment gives the "free energy" answer, but he wrote: "to my surprise, with the coil arrangement shown in the Figure 3 I found that the free energy becomes available well below the knee of the B-H curve at quite normal flux densities! Even at one-fifth of magnetic saturation levels, the excess free energy potential can exceed the input power and give a twice-unity factor of performance".

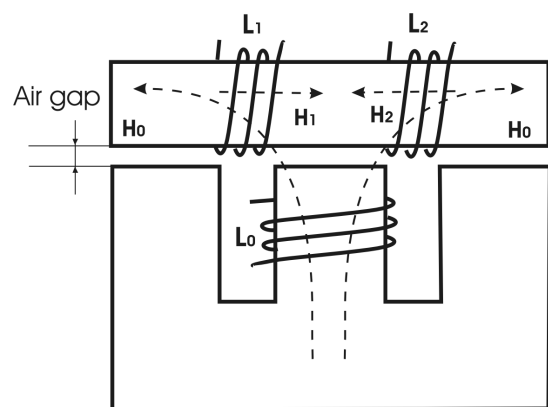


Fig.3

It is clear that Dr. Aspden's idea is one of application of the Φ -principle, which was described above for Φ -Generator. Fig. 3 and Fig.2 show the same magnetic flux superposition. But in this version the principle can be used for small value of the filed, which is part of the saturation level. The air gap also is very important.

Several research teams in Germany also tested this idea with positive results. A toroidal overunity generator was described by Stefan Hartmann in April 1999: "... a toroidal overunity generator has been build according similar to Fig.1 at Frolov's web site www.time-machine.spb.ru/ph-machine.htm (Not by Mr. Frolov in this case, I just use this picture for reference, the source

wants to stay anonymous, until his patent application is done and university verification tests will be done). The claims are: 1200 Watts coil out with about 1076.4 Watts in into the driving motor at 3450 RPM. 8 amps 117volts at no load 9.2 amps 117 volts at full load. The output of about 1200 Watts is already a total overunity operation! As they just increase the input power by about 140 Watts only between idle and load state and they get 1200-Watts output it seems indeed a case, where Lenz law is violated! This generator also has NO motor effect! If you supply current to the coil, the permanent magnet in the center will not rotate; cause the flux just stays inside the toroid core! There you can see, that the back drag does not influence the mechanical rotation of the magnet!" Stefan used very good criterion to prove high efficiency of the design: **There is no back-torque effect! It is most important aspect of Gramm's generator.** You can contact directly Stefan Hartmann: Keplerstr. 11 B, 10589 Berlin, Germany. Tel: +49 30 345 00 497, FAX: +49 30 345 00 498 email: harti@harti.com info@ccard.net (Please, note: Dr. Harman referred to my old web site www.time-machine.spb.ru which is closed now).

So, basic principles of MEG and Φ -machines are the same. It was patented more than 100 years ago. Primary magnetic flux is topologically separated in two (or more) fluxes, which are mutually compensated in the ring core. Advantages of MEG are absence of moving parts since special input coils produce changes of primary flux. Also level of saturation in ferromagnetic material obviously should be corresponding to intensity of primary magnetic field, which is created by the permanent magnet, Fig.4.1.

Besides MEG the same principle can be (and already was!) realized in many other systems. So, there is no any news in the USA patent #6,362,718 granted for "The Motionless Magnetic Generator". What did they claim? You can find it in the patent: "The first input coil and the first output coil **extend around portions of the first**

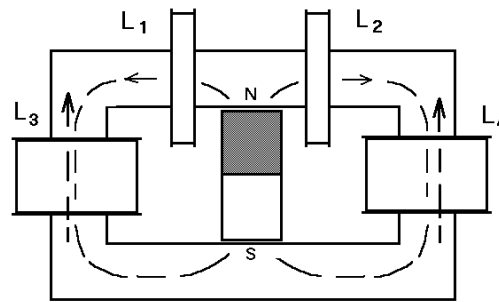


Fig.4.1

magnetic path, while the second input coil and the second output coil **extend around portions of the second magnetic path.**" Yes, it is the same bi-directional principle we discussed above: two parts of the magnetic flux and each coil produce effect to reduce flux due to this superposition.

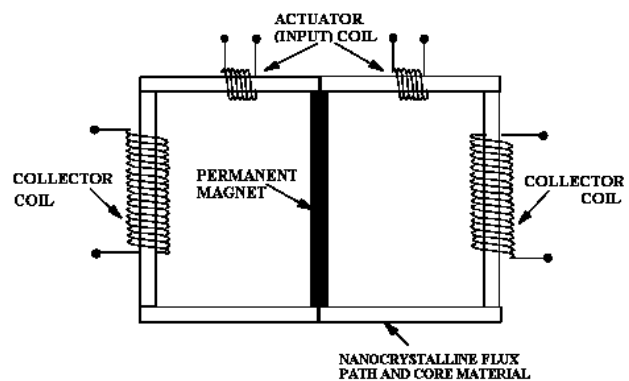


Fig.4.2

Diagram of prototype by Bearden.

In conclusion I'd like to confirm our sincere interest to develop joint work with all new energy research teams if they are not trying to obscure the issue of the technology by means of complex theoretical constructions and common words about zero point energy.

Matter as a Resonance Longitudinal Wave Process

Alexander V. Frolov

Abstracts

There is experimental data on gravitation anomalies for cases of resonance irradiation of the Bose condensates (superfluid helium or superconductor) at 10-100 MHz frequencies. It is developed by the author in frames of his aether theory that can be used for practical applications in aerospace and new energetics.

ZPF or aether fluctuations

The fundamental electromagnetic radiation field (Zero Point Field) ZPF or the quantum vacuum noise is a

recently accepted physical notion. In the article [1] David Noever and Christopher Bremner used it to derive a frequency – dependent version of Newton's gravitational coupling term G. On the other hand we can consider the quantum vacuum noise as aether fluctuations. Dr. Alexander Mishin [2] described experiments on registration of these processes by means of special equipment. Both approaches (ZPF and aether fluctuation) allow to conclude that mass and inertia arise from these oscillations. However if we are considering the oscillation as some aether process then we can assume and describe some physical mechanism of this process.

One of consequence of the vacuum energy model, which is described in [1] is that "the attractive force of gravity becomes reducible to the radiative interaction between oscillating charges..." Let's clarify which kind of radiation can be created by oscillating electric charges.