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Christian MONSTEIN, *et al.* Space Quanta Medium (SQM) & Central Oscillator

Crane Oliver - J. M. Lehner - Chr. Monstein : Central Oscillator and Space-Quanta-Medium: Foundations of a New Physics and a New Cosmology based on the newly discovered space-quanta-flux SQF.

The C-Generator

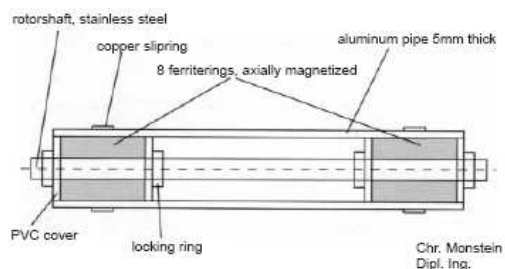
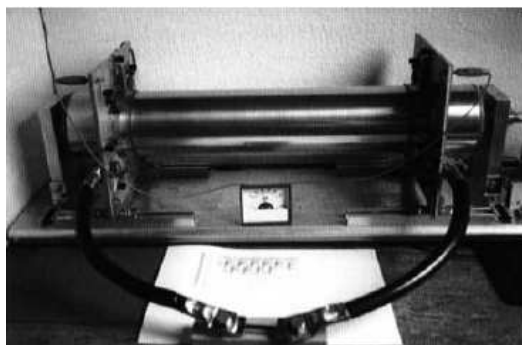


Fig. 3 Detail drawing of the rotating part of the C-generator

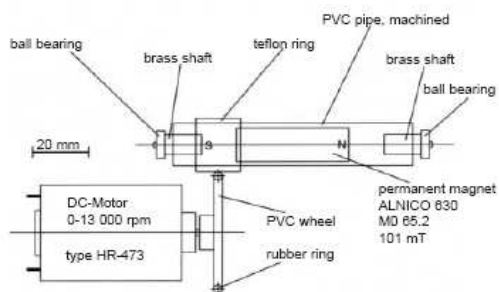


Fig. 1 Detail Sketch

CH687428 METHOD AND DEVICE FOR PRODUCING ELECTROMAGNETIC PULSES

[[PDF](#)]

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Applicant: RQM RAUM QUANTEN MOTOREN AG [CH]
1998-02-28

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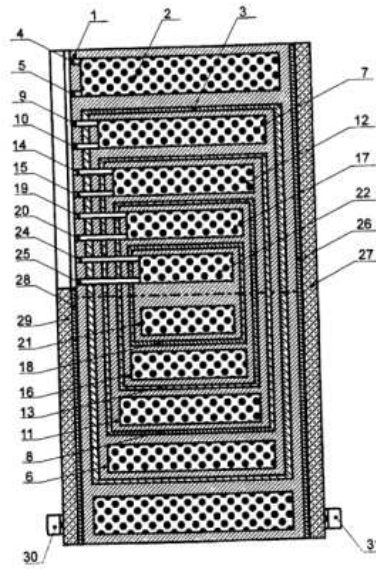


Fig. 1

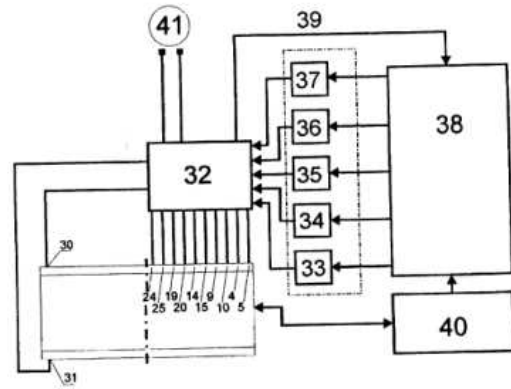


Fig. 2

Abstract -- The object of the invention is to provide a method and device for use in the field of intense electromagnetic pulse generation, for example for investigating or influencing materials structures as well as for use in EMC investigations, so as to provide a novel technological alternative for developing further areas of application. This object is achieved in that the structure of the core member of the device essentially takes the form of $2 + n$ (i.e. 5 when $n = 3$) electromagnetic resonant cavities fitted into one another according to the "Russian doll" principle; and in that the resonant circuit system is connected for circuitry and metrological purposes to the pulse generators (33, 34, 35, 36, 37), used for generation, and to an evaluation and control unit (38) and a vibration-measuring device (40). The invention concerns a method and device for generating electromagnetic pulses on the basis of electrical, magnetic and mechanical interactions between electromagnetically and mechanically oscillatory systems and can be used in fundamental research for materials structure, solid-state physics, material investigations and EMC investigations.

CH691378

Apparatus for changing the properties of materials...

[PDF]

2001-07-13

Inventor(s): LEHNER JEAN-MARIE [CH]; GIBAS PETER ALFRED DR ING [DE]; GREILINGER FRIEDRICH [DE]

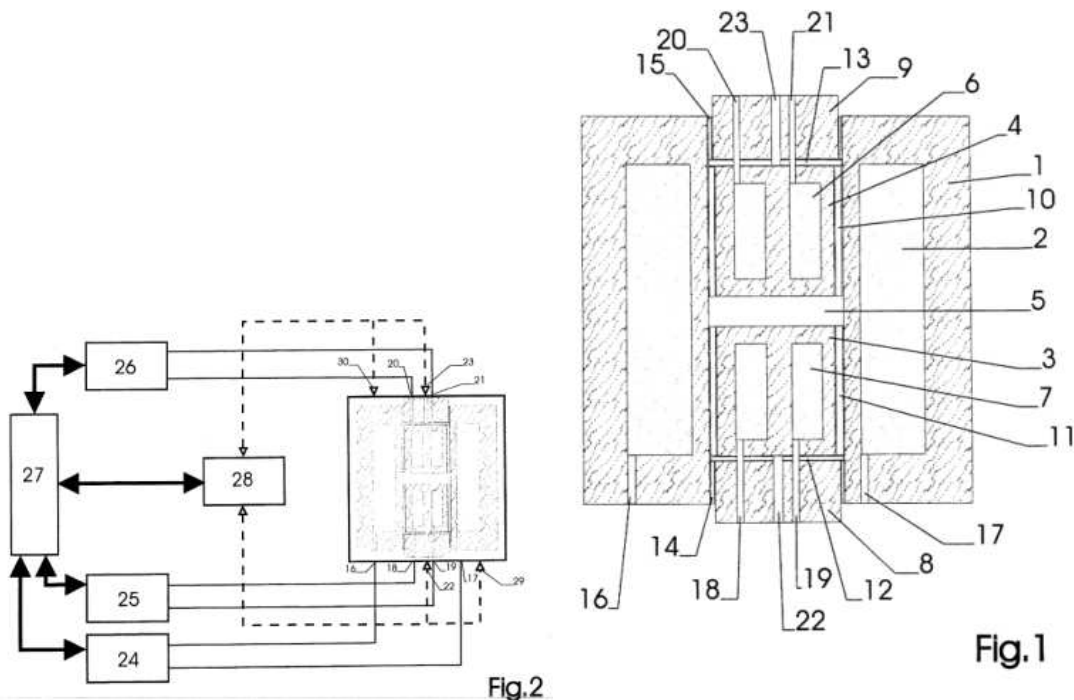


Fig. 1

Fig. 2

Abstract -- Apparatus for changing the properties of materials comprises an outer hollow cylindrical electromagnetic magnetic arrangement (1) having a recess for an excitation coil (2) in its wall; two inner electromagnetic arrangements (3, 4) arranged over each other in an axial direction and having inner excitation coils (6, 7); an inner plate-like hollow chamber (5) between the inner magnetic arrangements acting as a reaction chamber for the materials to

be treated; and two immersion anchors (8, 9) which close the inner chamber of the outer magnetic arrangement. An Independent claim is also included for a process for operating the apparatus. Preferred Features: The inner magnetic arrangements are coated with a diamagnetic material with the same or lower friction coefficient and the same or higher heat resistance as PTFE. A copper intermediate layer is arranged between the immersion anchors and the inner magnetic arrangements.

<http://www.rqm.ch>

The English version of volume 1: "Central Oscillator and Space-Quanta-Medium" can be found on the Internet: www.rqm.ch

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[Excerpts --]

***Central Oscillator and Space-Quanta-Medium: Foundations of a New Physics and a New Cosmology based on the newly discovered space-quanta-flux SQF.
Foundations of a new SQM/SQF-Technology***

by Oliver Crane - J. M. Lehner - Chr. Monstein

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Parity Overthrow of Rotating Bar Magnets?

Part 1 The New, Unified World View of Physics by O. Crane**Introduction**

Since there has been no success achieved yet in explaining all physical facts and results of experiments with a universal and unified theory, the serious and absurd step away from reality into abstraction was taken. In so doing, explicitly and consciously, one gave up the idea of creating a concrete and visual picture of physical phenomena. One seems to be happy with purely mathematical proofs. Experimental facts take a secondary place and are only accepted, if they "fit" into the official doctrine. A different opinion, for example, was held by Goethe, who believed that mathematics was not at all required in order to understand natural, scientific phenomena. It is believed, therefore, that nature can be explored according to the principle of the sorcerer's apprentice: "If you do thus and so, then this and that will happen", but one does not have the minutest idea of what in reality and, actually is happening. The problem of the unification of the world view of physics can not be solved on the basis of mathematical fictions. This has been proven sufficiently by now since all attempts thus far have failed. The total takeover of physics by mathematics, changed it into an abstract discipline, which conveniently overlooks the facts. Physics should not be conducted in the dragnet of mathematics alone, since it is a rather independent field, which can be described with logical, functional models. Significant for the reality of natural events can only be experimental facts, and by no means any mathematical abstractions.

Even the smallest particle possesses a certain spatial volume and thus has 3 dimensions. Up to this time there has never been shown an actual structure with more or less than 3 dimensions. Even the thought of a 4-dimensional object is an absolute impossibility, and even more so its practical realization. In spite of this, presently, as is well known, work is being done worldwide on the theory of "superstrings" based on 10 dimensions! (9 spatial dimensions and 1 dimension for time). Beyond this, establishment physics, however, is convinced, that nature somehow is able to create "structures" up to 26 spatial dimensions (!), for only thus can light waves be mathematically "described". Even the greatest nonsense can be mathematically described or 'camouflaged' thus attaining credibility in the eyes of establishment physics. Empty Space: Empty space is defined as an "absolute nothing". but in an absolute nothing, nothing can change. If, however, an electromagnet is switched on inside a vacuum, then the building up of a magnetic field does cause a change in the so-called "absolute nothing"! The same thing happens when an electric field is established! Therefore, if changes in "empty" space do happen, then of necessity "something" has to be present which is changing. Consequently "empty" space must contain a substance yet to be defined or a medium must exist (but not in the sense of the classical ether-idea).

Vacuum

A space free from any matter is described as a vacuum. This state can be artificially created with the help of a vacuum pump. Strictly speaking, a pure vacuum, however, does not exist. Even between galaxies there are found elementary particles, even if only in a minute density. A point in space, however, can very well have an electromagnetic potential. Electromagnetic radiation penetrates the vacuum at the velocity of light.

All of physics abounds with "phenomena" (unexplained facts), which establishment physics can not explain nor prove. These "phenomena" are therefore "ignored" and for obvious reasons do not find a place in textbooks or instructions in universities and higher schools of learning. Ether is what Aristotle called the heavenly substance, which light penetrates in order to reach earth. Ether, is the Greek word for 'shine'. Since the ether can not be differentiated from the vacuum, it can not move and thus remains at absolute rest. If there is absolute rest, there will also be absolute motion, absolute space and absolute time. The next question was, what is the absolute velocity of the earth compared to this resting ether. Such a value would be of great importance for the philosophy of science. If light consists of ether waves, as formerly assumed, then velocity measurements of light in the direction of travel and against the Classical Ether (Aether) Idea Ether is what Aristotle called the heavenly substance, which light penetrates in order to reach earth. Ether, is the Greek word for 'shine'. Since the ether can not be differentiated from the vacuum, it can not move and thus remains at absolute rest. If there is absolute rest, there will also be absolute motion, absolute space and absolute time. The next question was, what is the absolute velocity of the earth compared to this resting ether. Such a value would be of great importance for the philosophy of science. If light consists of ether waves, as formerly assumed, then velocity measurements of light in the direction of travel and against the direction of travel of the earth, should show differences. (Michelson-Morley-experiment). Since, however, surprisingly, no differences were measured, the idea of an absolute space was dropped. The theory of relativity was born. This theory can not decide whether there is an ether or not. The great physicist Dirac said in 1953, that the etherless basis of physics theory would soon reach the end of its validity..

2. Working Strategy

Other ways had to be found therefore, because, using the same knowledge and the same methods, by default, the same (incorrect) results will be obtained. Therefore the following working strategy was devised:

1. For this work, only clear, concrete functional models can be used. Not one single abstract factor can be allowed. Everything must be clear down to the smallest detail and it must be possible to describe it with the parameters of classical mechanics. Absolute causality is the basic principle. Causality is that relationship, in which cause and effect stand. With respect to events in nature, philosophically, an unbroken and complete causal relationship is assumed. In this the same causes result in the same effects. In physics one tries to relate events to previous events. The circumstance, that an event can only be the consequence of an earlier event, is called causality. From this can be deduced, that time travel is impossible, especially not into the past. In the theory of relativity, however, it is assumed, that there are events, which have no causal relationship since in time they are so remotely placed, that even light rays can not connect them. In quantum mechanics cause and effect are only connected by means of statistics. This purely statistical interpretation, by default, results in a total break with all previous ideas in physics. Modern physics rejects determinism (causality) for the microcosmic events, but in so doing it also rejects it for any other events, generally, which are but built up from innumerable micro events. Einstein was convinced, that behind the world of quanta there was hidden the well known world of classical physics (hidden parameters). For this reason he consequently rejected the quantum theory.

2. Mathematics can only be used from now on, for example, to determine exact values or relationships, but in no case must fictional, abstract structures be "designed" without any relationship to reality.

3. The analytical method is not to be used any more, but rather that of synthesis. The question then is: How is space structured, to produce entities such as elementary particles, atomic nuclei, electric fields, magnetic fields, gravitation etc. and how do they exist?

4. The goal will have been reached in reducing all functional models designed to one functional model which then can be used and applied to all of physics.

2.1. Demands for a Unified Functional Model

We will now show the most basic demands required for such a functional model (there are many more), without using the knowledge gained from the completed theory. We have two different particles, one A (proton), one B (electron). Each of these particles will repel another of the same kind. The repelling of the A-particles amongst themselves must be equally as strong as the repelling of the B-particles amongst themselves. However, A and B attract each other with the same force as the repelling force. On the outside nothing is noticed of this force, it has been neutralized. B is about 2000 times lighter than A, yet its electrical charge is just as strong as that of A, yet of opposite polarity.

Besides this there is another third particle C (neutron), which is neither attracted nor repelled by either A or B, nor does it have any electrical charge. When A or B are moving, they generate a magnetic field at right angles to their direction of motion. If A moves, it generates a magnetic field which is identical with that of B, if it (B) moves in the opposite direction of A. Likewise B generates a magnetic field, which is identical to that of A, if it (A) moves in the opposite direction of B. A and B rotate about their own axis and in so doing they also generate a magnetic field. If A rotates in a certain direction, then it will generate a magnetic field that in fact corresponds to that of B, if B rotates in the opposite direction of A. Likewise B generates a magnetic field, which in fact corresponds to that of A, if A rotates in the opposite direction of B. Besides this, there is the third particle C (neutron), which, though it has no electrical charge, does, however, generate a magnetic field due to its "rotation", which corresponds to that of B. If A, B or C are moving, a resistance is encountered in the direction of motion, which has to be overcome. Without any further influence, these particles move uniformly in a straight line in the given direction.

Any deviation from this uniform, straight line motion again encounters resistance. In order to stop the particles, the same force must be expended, as was used to accelerate them. At very high velocities a mass increase seems to be noticed in A, B and C, with simultaneous particle contraction in the direction of motion, as well as a slow down of time (dilatation). All three changes start at the same time and increase proportionally with uniform intensity in relation to the velocity. Particles A and C can combine into atomic nuclei, in which case C can only remain stable inside the nucleus. At a certain size or certain amount of mass between A and C the nucleus becomes unstable (radioactive). This limits the number of particles A and C in the nucleus. Among the particles A, B and C there is also a small attractive force which is identical with that of gravitation. These few examples may be impressive, but they are only a fraction of the demands required for a functional model. It seems unlikely that in past publications the relatively simple functional model presented, did in fact perfectly fulfill all these highly complex and seemingly contradictory demands. Beyond this, it is the only solution of a functional model, that is possible, as has been found out in more than 30 years of research.

Basic Problems

Against expectation, the main difficulty was found, not in the complication of the problem, but on the contrary, in the fact that nature "functions" rather simply. This is according to the principle: "This is as simple as is possible!" Man thinks much too complicated. The reason is, that a very simple solution of a difficult problem makes tremendous demands on the thinking apparatus. However, a complicated, elaborate solution of the same problem does not strain the brain at all. Therefore it is terribly difficult to find terribly simple solutions. (having quoted Paul Scherrer). Present physics offers these complicated, elaborate solutions to problems, even in totally abstract form. Thus it was, at the beginning, a rather troublesome path to represent a concrete, realistic functional model based on all the connected facts, of which a partial field of physics consists. But the fact alone that such functional models could be realized (at first only for few partial fields of physics), was enough motivation to continue the work. To this must be added that these models did withstand any criticism, and so far no one has been able to refute even the smallest detail. In the course of time a specific thought model developed from the individual functional models constructed, which made further work essentially easier. Conventional physics also has its own thought model.

After the basic functional models had been constructed with great effort, it was found to be fairly simple to reduce these to one fundamental model, for not once was there a choice among several possibilities. Inside the framework of this functional model, there is always only one specific solution possible. This makes it logically and factually consequent, since real events in nature agree exactly with this unified theory, and this all the more, as literally every single, physical function can be reduced to pressure and counterpressure. This is simple and it can not be simpler.

Foundational Prerequisites

The entire contents of the universe consists of an ideal gas, which is highly degenerated within high density zones. Density and pressure of this medium are extremely high, even if compared to the proportions inside the atomic nucleus. This gas consists of uniform particles called "space-quanta" (SQ). The

volume of these SQ is many orders smaller than elementary particles. All elementary particles and force fields consist of these SQ. Compared to the normal SQ-density (static medium pressure) positive elementary particles constitute zones with smaller SQ-density (low pressure zone) and negative elementary particles are zones with greater SQ-density (high pressure zones).

Ideal, strongly degenerated Gas

The concept of an ideal gas is found in connection with the change of volume of gases. If this volume change is indirectly proportional to the pressure, which is imposed on an enclosed gas, then it is called an ideal gas. (Law of Boyle/Mariotte). Helium, a real gas, is considered an ideal gas at a sufficient distance from the condensation point. Water vapor, however, has an approximately 10% higher coefficient of expansion and can therefore not be called an ideal gas. As a consequence of the equation of state it is also true, that the volume of an ideal gas is proportional to its temperature, as long as the pressure does not change (Law of Gay-Lussac). If a gas is heated it will expand if no extra pressure is exerted on the piston at the same time. Matter is called degenerated if it is totally ionized, that is, if the positive and negative particles are not coupled together. We know about so-called "free" electrons in a metal. If those electrons were bound to the atomic nuclei, then the metal would not be able to conduct electricity. By analogy: If in a gas all electrons are free, then the gas is called degenerated and often called a plasma. Since the atomic nuclei and electrons surrounding them are independent of each other, one can not talk about a common temperature any longer, which means, the concept of temperature has no more meaning.

Local pressure differences within a medium can only be kept up by outward energy input. For the existence of elementary particles it is therefore absolutely required to have a permanent energy supply. Therefore we postulate the introduction of a central oscillator (spherical transmitter of zero order), which transmits longitudinal, mechanical oscillations, with a frequency of about 1023 Hz, to the SQ-medium. These progressive waves are reflected at the periphery of the universe.

Spherical Oscillator of Zero Order

Most sonic transmitters (oscillators) can be classified in three basic types, depending on the type of direction of propagation, which are spherical transmitters of zero, first and second order. The spherical transmitter (or radiator) of zero order, also called "acoustic monopole", can be represented by a pulsating sphere. This is a sphere which periodically changes its radius. The generation of sound therefore depends on a periodic change of volume. Thus sound propagates uniformly and symmetrically in all directions. Longitudinal and Transverse Waves Longitudinal waves can best be described as compressions and rarefactions of a medium, which due to mutual repulsion of the particles propagate with the so-called signal velocity. The waves are caused by a one time or periodic displacement of a particle or that of a spherical oscillator. If it is a periodic displacement, then the particles oscillate about their position of rest by periodically moving in the direction of propagation of the wave or against it. If the original oscillation is harmonic, then we have a sine wave. Sound waves are typically longitudinal waves. The signal velocity of sound is that velocity which depends on the medium. Transverse waves are waves in which the particles move at right angles to the direction of advance of the wave. In these waves the crests and the valleys of the wave alternate. The point behind the crest of the wave, where no displacement occurs, corresponds to the zone of greatest compression. The corresponding point behind the valley in the wave is the zone of greatest rarefaction in longitudinal waves. Waves on the surface of a liquid are typically transverse waves. Electromagnetic waves also belong to the transverse waves. Their signal velocity is equal to the velocity of light.

Consequently, standing waves (SW) are generated, without gaps, in the entire space between the central oscillator and the periphery of the approximately spherical universe. Standing waves are the result of interference between two coherent, opposing waves of equal frequency and amplitude. For the existence of elementary particles and force fields (such as gravitation) it is absolutely required, that the amplitude pressure of the SW will be significantly higher than the static SQ-medium pressure. This results in an asymmetry, because the amplitude pressure of the low pressure phase can only go to a zero value, while in the high pressure phase it can reach any value. This causes an oscillation, the negative half-wave of which has a smaller amplitude than the positive half-wave. This, amongst other things, makes the signal velocity 'c' dependent on the pressure of the amplitude. We are specifically dealing here with mechanical, longitudinal waves (comparable to ultra sonic waves of extremely high frequency), which contrary to electromagnetic waves, can assume any energy values while remaining at the same frequency.

Progressive and Standing Waves

Two waves, which are simultaneously traversing the same medium in opposite directions will superimpose upon a standing wave, provided that both waves agree in amplitude, frequency and wavelength. Most often such standing waves originate if a longitudinal, one-dimensional (linear) wave or a transverse, three-dimensional, spherical wave reaches superposition with itself after it has been reflected. A reflection results when entering into a thinner medium, as well as when entering a denser medium. If no reflection with above conditions is observed, then one calls it a progressive wave. The amplitude of the standing wave is twice as great as that of a progressive wave.

The frequency of 1023 Hz yields the elementary length of 10 -13 cm, and likewise we have the elementary time period of 10 -23 seconds.

Signal Velocity 'c'

The velocity of propagation of waves is also called signal velocity. It depends on the type of wave, and sometimes also on the wave length, but it always depends on the medium which oscillates, respectively on the medium through which the electromagnetic wave travels. Surface waves can be very slow, while pressure waves range from 170-5400 meters / second. Electromagnetic waves all have approximately the velocity of light. If dispersion shows up, then it is better called group velocity due to the different signal velocities found with different wave lengths.

Mechanical and Electromagnetic Waves (Difference)

While in mechanical waves particles of matter are oscillating, the propagation of electromagnetic waves is not bound to matter. Its signal velocity, contrary to that of mechanical waves, is nearly constant in different media and almost one million times greater. The potential and kinetic energy (energy of motion) of the mechanical wave corresponds to the average electrical, respectively the average magnetic energy density of the electromagnetic waves. The total energy density for both types of waves is proportional to the square of the amplitude. The outstanding difference between the two types of waves, however, is this: The energy density of electromagnetic waves has a fixed relationship to the oscillation frequency. Mechanical waves, however, can assume any energy value at any frequency. Interference If several waves traverse a medium, superposition takes place, which is called interference. This calls for the principle of the undisturbed superposition (superposition principle), which means, that at any place and any time, the momentary displacements of the waves involved, may be added to obtain the resulting displacement. These resulting displacements may be positive or negative, which can also result in extinguishing the waves. The maximum total amplitude corresponds to the greatest possible displacement, which can be caused by the interference at a certain place at a certain time. Even light waves can interfere, provided they are coherent.

Static Medium-Pressure

A pressure exerted on a liquid or a gas, distributes over the entire medium in all directions with equal force. Or: Inside, as well as at the boundaries of a resting medium, which is not subject to external forces, the same pressure exists everywhere. This is the static pressure of the medium. This all around pressure distribution is explained by the easy displacement of the light-weight particles in liquids and gases.

Coherence

It has been found, that several light sources in a room will never extinguish by interference or show any intensity patterns. The reason for this is, that different types of light sources generally are incoherent. If light waves from the same wave train are split by reflection, refraction or diffraction then the waves thus generated are called coherent. Only these types of waves are capable of interference. Laser light allows extreme coherence which is important in holography.

Sound Waves

Sound waves are mechanical, longitudinal waves. Originating from a sound source, an oscillating body, they travel in solid bodies, liquids and gases in the form of pressure variations (pressure waves). The human ear usually can hear frequencies from 16000 - 20000 Hertz. Higher frequencies are designated as ultrasound, lower ones as infrasound. The amplitude corresponds to the loudness, the frequency of the tone or the pitch, and the shape of oscillation to the overtones or harmonics. The velocity of sound reaches from 170 meters / second (in the noble gas Xenon) to over 1403 m / s (in water at zero degrees Celsius) to 5400 m / s (in quartz glass). In dry air of zero degrees Celsius the velocity is 332 meters / second.

Relationship Frequency - Oscillation Energy

Energy is transported in every wave as oscillation energy, which is passed on from particle to particle of the medium. Standing waves are an exception, the energy of which remains in the same place and is not transported. At the zero point a particle has maximum velocity and maximum kinetic energy. At the valley (return point) it has no velocity, but maximum potential energy, is proportional to the square of the amplitude. This means if the amplitude (loudness or volume in acoustics) is doubled, the energy will increase fourfold. If the energy for a small unit volume is calculated, which is the energy density, then it is found that it also is proportional to the frequency of a wave. If therefore the frequency of a wave is doubled, keeping the same amplitude (in acoustics this means one octave higher), then the energy density increases fourfold.

Definition of the Electric Field

All positive and negative elementary particles, being resonators, are forced to carry out radial pulsations in rhythm with the central oscillator (1023 Hz), thus generating progressive waves, which are identical with the electric field of the respective particle. Negative particles (high pressure zones) reflect pressure as pressure and low pressure as low pressure. Positive particles (low pressure zones) however, reflect pressure as low pressure and low pressure as pressure, which results in a phase displacement of 180. Between negative particles on the one hand and positive particles on the other hand, interference causes twice as high a pressure as can be found outside the particular particle. This is identical with the repulsion of like charges. Resonators A resonator is a device which can be excited to resonant oscillations. Some resonators are used to make acoustical measurements. Gas filled hollow spaces, of any shape (especially a sphere) with a neck for an opening are resonators comparable to a spring to which a mass is attached. The oscillation of the spring corresponds to the periodic change of volume of the gases in the sphere. The mass of gas in the neck is being moved back and forth. It can be shown, that such a sphere has a precisely definable resonant frequency which depends on the volume of gas, the dimensions of the neck, as well as the velocity of sound in that particular gas. If many of those resonators of different size are lined up in a row, it is possible to make acoustical analyses, which are the records of the frequency portions of an acoustic wave. There are also resonators for electromagnetic waves. A well known example is the optical laser.

Due to the phase displacement of 180*, however, a compensation (extinction) occurs between negative and positive particles resulting in lower pressure compared to the pressure outside the particle. This is identical to the "attraction" of unlike charges. The particles of course are not "attracted" but pushed together.

Different Actions of Reflection (phase displacement) of Longitudinal Waves and Transverse Waves

Longitudinal waves: If a stiff spring is elastically supported and brought to oscillation by pulling it down briefly, then a compression of the spiral windings will transmit downward to the end of the spring. When the compression has reached the end it runs out freely. A subsequent rarefaction (loosening) of the windings runs back up. The reflection at the free or "soft" end turns the compression into a rarefaction, which is called a phase shift or phase displacement of 180 degrees. If the spring is held tight at the lower, the free end, then the compression is reflected and runs back as a compression. In other words, the compression is not followed by a rarefaction, but another compression. A rarefaction will run back as a rarefaction. The reflection at the firm or "hard" end will reflect a compression as a compression, and a rarefaction as a rarefaction. **Transverse waves:** If a horizontally supported rope is fastened flexibly at one end and the other end is made to oscillate by an upward thrust, then a wave crest will move to the other end of the rope. Since the rope is freely movable it can let the wave crest oscillation move upward freely. It is as if this end of the rope is subjected to an upward thrust, which runs back as a wave crest. A wave trough (valley) arriving will run back as a trough. The reflection at the free or "soft" end sends a wave crest back as a wave crest and a wave trough is reflected as a trough. If, however, the rope is fixed at the end, then the rope end is not able to carry out an oscillation vertically to the direction of the rope. If therefore a crest arrives, then the previous rope particles can not fully carry out the motion imparted to them, since the fixed end of the rope exerts a pull downward on them, which results in a motional impulse that also goes down. This causes a wave trough to be formed which moves in the opposite direction. For the same reason an arriving wave trough runs back as a wave crest. A reflection at the firm or "hard" end sends a wave crest back as a wave trough and a wave trough is reflected as a wave crest. This reflection action is called phase shift or phase displacement of 180 degrees.

The electrostatic repulsion and "attraction" is based on two criteria:

1. All positive elementary particles pulsate in the same phase position. All negative particles pulsate in the same phase position.
2. Between positive and negative elementary particles exists a phase displacement of 180°. Progressive waves generated by positive and negative elementary particles (which are resonators), do not only interfere with each other, thus causing the "electric field", but also interfere with the SW. There is a superposition of the reflected component of the SW, arriving from the outside, with the negative particles. This causes a high pressure along the axis of incidence, which reaches its maximum value right at the particle and then decreases with the square of the distance. The reflected portion of the component of the SW, (being 180° out of phase) and arriving from the outside, interferes with the positive particles. This causes a low pressure in the axis of incidence (by extinction), which reaches its maximum value right at the particle and then decreases with the square of the distance. This interference

with SW only happens, if the respective electrical charges are not compensated. Low pressure or high pressure are thus only depending specifically on the wave. The static pressure of the medium is not changed. This can be stated as follows:

A positive electrostatic field causes a low pressure. A negative electrostatic field causes a high pressure.

Definition of the Biefeld-Brown Effect

Based on a proposal by Prof. Paul Biefeld (former fellow student of Einstein in Zurich), the physicist Townsend Brown carried out an experiment in 1923 as follows: A high voltage plate condenser was charged and suspended horizontally, being free to move. Townsend Brown observed that the condenser started to move on its own in the direction of the positive pole (low pressure) sustaining a constant thrust. When the condenser was vertically fastened to a beam scale a weight increase showed if the positive pole (low pressure) was pointing down. Correspondingly a weight loss occurred when the negative pole (high pressure) was pointing down. The intensity of the effect was determined by the size of the pole plate areas, the voltage level and the polarization capability of the dielectric. The exact explanation for the event of this effect was given, in detail, under the title: **Definition of the Electric Field**. Therefore, the Biefeld-Brown Effect has nothing to do with gravitation. It is a pure effect of the electric field. Dielectric A dielectric is a non-conducting substance, which is placed between two oppositely charged plates (for instance in a plate condenser). This changes the field strength between the plates. The type of change is described by a characteristic of the dielectric, called permittivity (dielectric coefficient). Vacuum and air have a minimum permittivity of one (1). Water has the highest permittivity (about 80). [A BaTiO₃ crystal can have a value of 2000, if the electric field is perpendicular to the principal axis of the crystal].

The Biefeld-Brown Effect directly proves the pressure decrease in the direction of the positive electric charge and that of pressure increase in the direction of the negative electric charge. This, in turn, is an absolute, basic requirement for the origin of a space quantaflux (SQF), respectively that of a magnetic field. (Please see the following definition of the magnetic field). This advances the Biefeld-Brown Effect to one of the most important, fundamental effects of physics.

Definition of the Magnetic Field

If a negative particle (e.g. electron) is moved it will create a high pressure zone at right angles to its direction of motion. Behind the negative particle the previous high pressure (caused by the presence of the particle) will decrease. This causes a pressure difference, which is again equalized by the space quanta flux (SQF). This SQF is identical with the "magnetic field" and, with a negative particle, flows counter to the particle direction. (Fig. 1). If a positive particle is moved, it creates at right angles to its direction of motion a low pressure zone. Behind the positive particle normal pressure will build up again.

Repulsion of Opposite Flows

In oppositely directed flows, particles in the boundary layers of the two flows hit each other slightly out of line (such as two billiard balls in a non-centered stroke). Thus the particles sustain an impulse which drives them apart. Oppositely directed flows therefore can not mix and will push each other aside (repulsion). Pressure Decrease in Flows A flow contains two pressure components: The static pressure of the medium and the dynamic pressure caused by the flow. The static pressure corresponds to the potential, and the dynamic pressure to the kinetic (motional) energy of the medium. Since the energy of a stationary flow remains constant, this also is valid for the total pressure, which is made up of the dynamic and static pressure. If a resting medium is caused to flow (by opening a valve), then a dynamic pressure results and thus the static pressure of the medium decreases, in order to keep the total pressure the same. (Law of Bernoulli). This pressure decrease shows its effect at right angles to the direction of flow. The principle is used technically in many spray cans and atomizers, as well as in so-called venturi pumps or hose end sprayers.

This causes a pressure difference which again equalizes as SQF (magnetic field). This SQF for the positive particle flows in the same direction as the particle itself. (Fig.2).

Induction

During induction the primary current produces an SQF opposing the direction of motion of the electrons. In the direction of flow a stagnation point develops with the free electrons of the secondary coil, which shifts the electrons in the flow direction to one end of the coil, as far as the electrostatic repulsion (negative pole) will allow it. At the other end of the coil this causes a deficiency of electrons (positive pole). Thus an electric voltage can be measured at the ends of the coil. Moving electrons also generate a high pressure at right angles to their direction of motion. Behind the electrons the previous high pressure will again decrease. This pressure difference equalizes with a secondary-SQF, which is opposing the primary-SQF. These two SQ-

The Process of Induction

A voltage will be induced in a coil, if the magnetic flux penetrating it does change. A similar action occurs when moving a conductor across a magnetic field. This process is called induction. If the conductor loops are closed the induced voltage will generate an induction current. The prerequisite of induction is always a momentary change of the magnetic flux, which can be achieved by changing the magnetic field, or moving the conductor within the field. The induction voltage, respectively the induction current, in a closed loop always acts against the generating flux change (Lenz's Law). With an increase in the magnetic flux the induced current flows against the direction which is derived from the so-called cork screw-rule (right hand rule).

... direction of electron motion high pressure zone pressure decrease normal pressure SQF space quanta flux

Fig. 1. SQF of moving, negative charge (electron) direction of proton motion low pressure zone pressure increase SQF space quanta flux

Fig. 2. SQF of moving, positive charge (proton)

If the primary-SQF remains constant, then the resistance of the conductor, as well as the electron stagnation at one end of the coil (repulsion of like charges), will cause the secondary electrons to slow down until they stop. This has decreased the secondary-SQF and now a stationary (primary-SQF) will form around these electrons, which will have symmetrical pressure points at the front and the back. There is no voltage to be measured at the coil ends at that moment. (Fig. 4). Stationary Flow (Pressure Points) A flow (flux) means a motion of liquid or gases. The cause of a flow are, for example, gravitation or pressure differences. In order to designate the direction of motion of the flow one uses streamlines. If the paths of the individual particles agree with these streamlines, and if the streamlines keep the same shape for some time, then the flow is called stationary. If an ideal (frictionless) liquid flows around a sphere, then a stagnation point is formed at the foremost point of contact. At this point the flow velocity becomes zero and simultaneously a maximum pressure builds up at that point (pressure point). Starting at this point the flow will split, flow around the sphere and form another analogous point on the

opposite side 180° away. The flow velocity will increase and reach its maximum value at the equator of the sphere, then decrease until it slows to a standstill at the opposite stagnation point. The pressure decrease inside the flow (at right angles to the flow) around the sphere, will reach its maximum value at the point of the maximum velocity, which is at the equator of the sphere. The forces acting on the sphere at the two stagnation points or pressure points are of equal magnitude, but oppositely directed, thus compensating to zero (see also 12.9 in the Glossary). No forces will act on a sphere submerged into the (constant) flow of an ideal liquid. On the other hand, a sphere will not be subject to any resistance, if it moves with a constant velocity (uniformly-straight) through a resting, ideal liquid or a resting, ideal gas.

...secondary primary pressure point

Fig.3. SQF at Closing Circuit for Primary Current secondary primary pressure point

Fig.4. SQF at constant Primary Current

If the primary current is switched off, thus decreasing the primary SQF, the rear pressure points of the secondary-electrons will be relieved first and then they receive an impulse from the front pressure points in the opposite direction (compared to the initial current switched on). Again the electrons are pushed to one of the coil ends (negative pole), as far as the electrostatic rejection pressure will allow. This causes a deficiency of electrons at the other end (positive pole). A voltage can now be detected at the ends of the coil. The moving secondary-electrons themselves create a high pressure at right angles to their direction of motion. Behind the electrons the previous high pressure builds up until it reaches normal pressure. The pressure difference equalizes with a secondary-SQF in the same direction as that of the primary-SQF. Between both of these SQF, flowing in the same direction, a low pressure builds up, which due to the static pressure of the medium will push them together ("attraction"). In the primary coil we see, analogous to this, the decrease of the primary-SQF with a simultaneous, so-called break surge. (Fig.5).

Self-Induction

If an electric voltage is applied to the ends of a conductor (for example a coil), then the free electrons will move in the direction of the positive pole, and generate an SQF opposite to the direction of motion. Each free electron will hinder adjacent electrons due to the structure of its own specific SQF (opposite to the direction of motion). This will achieve a common flux with symmetrical pressure points in the front and the back of the electrons. When the current is turned off the SQF decreases again by relieving the front pressure points first.

secondary primary pressure point

Fig.5. SQF when switching off primary current

The rear pressure points now impart an impulse to the free electrons which is identical with the break surge. Self-Induction Changes of the magnetic flux induce a voltage not only in another conductor, but also in the coil itself which produces the magnetic field. This phenomenon is called self-induction. In this case the voltage generated by self induction opposes the change of current in the coil, which first caused the induction.

Magnetic "Attraction" and Repulsion

The magnetic "attraction" and repulsion follows the Bernoulli Principle: Flows traveling in the same direction (SQF) "attract" Flows traveling in opposite directions (SQF) "repel" The pressure decreases in any flow at right angles to its direction of motion. This is also true for the SQF. The static SQ-medium pressure acts as a radially, inward directed force on any SQF (e.g. pinch effect, Fig.6). Two SQF in the same direction do not "attract" each other, but they are pushed together by the static SQ-medium pressure. Field lines used before are an exact cross section through the SQF (disregard vector arrows) and are identical with equipotential surfaces. They are an excellent help to represent the exact path and the local intensity of the SQF. The magnetic field of a cylindrical bar magnet consists of the SQF revolving, in a circle, around the cylinder axis. In any sector of such a circular flux there is at 180° on the opposite side a sector in which the flow is of opposite direction. [This is more easily seen if the circle is really small]. Since opposing flows repel, this causes an expansive pressure, working from the inside to the outside on the entire circular SQF-flow. This pressure wants to divert the flow, as is well seen in the field lines of a bar magnet, especially at the poles (Fig. 7). On the other hand, the static pressure of the medium exerts a radial pressure from the outside on the SQF trying to compress it at right angles to the direction of flow

(a) (b) Fig. 6 Pinch-Effect

Electrodynamical effect of current surges (200 000 A, period of discharge 30 ms). (a) copper sheet 300 x 75 x 0.2 mm; (b) copper tube 300 mm long, diameter 15 mm, wall thickness 0.3 mm; (c) basket antenna with 8 wires ea

Illustrations

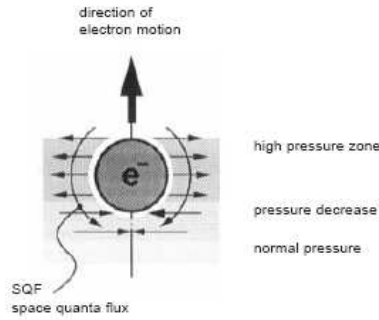


Fig. 1. SQF of moving, negative charge (electron)

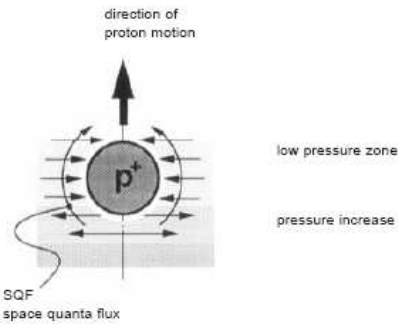


Fig. 2. SQF of moving, positive charge (proton)

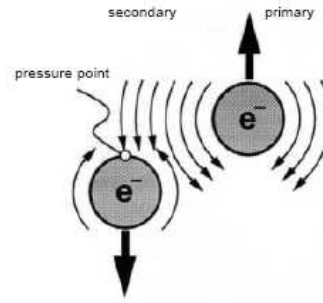


Fig. 3. SQF at Closing Circuit for Primary Current

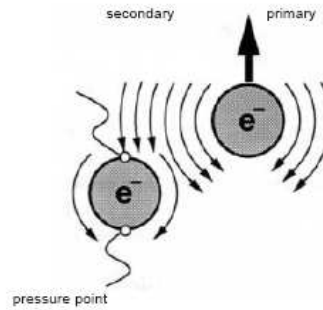
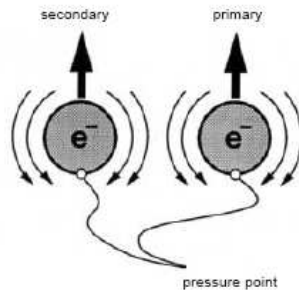


Fig. 4. SQF at constant Primary Current



(a)

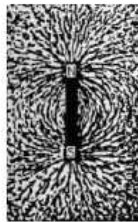


(b)

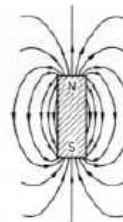


(c)

Fig. 6 Pinch-Effect
Electrodynamic effect of current surges (200 000 A, period of discharge 30 ms). (a) copper sheet 300 x 75 x 0.2 mm; (b) copper tube 300 mm long, diameter 15 mm, wall thickness 0.3 mm; (c) basket antenna with 8 wires each 4 mm diameter. Photos (a), (b) and (c) each show object before and after current surge.

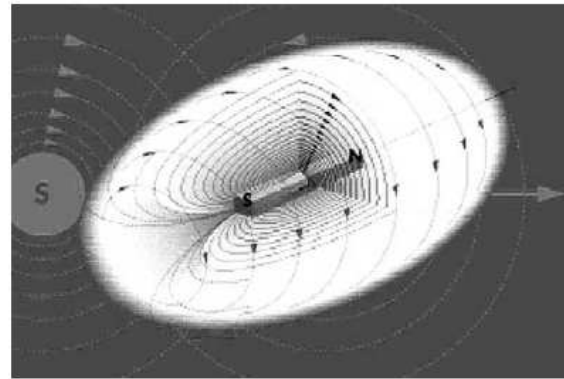
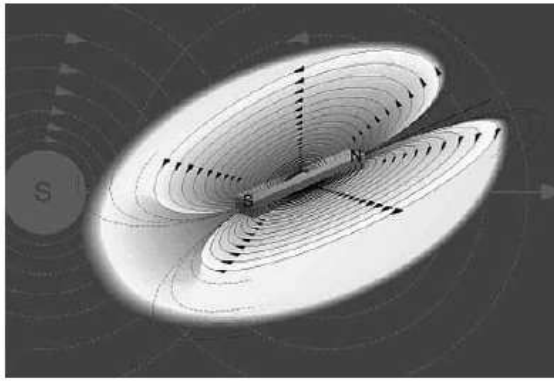


(a)



(b)

Fig. 7. Field lines of a bar magnet (a) made visible with iron filings (powder); (b) some lines drawn (disregard vector arrows). Both pictures correspond to a cross section of the SQF.

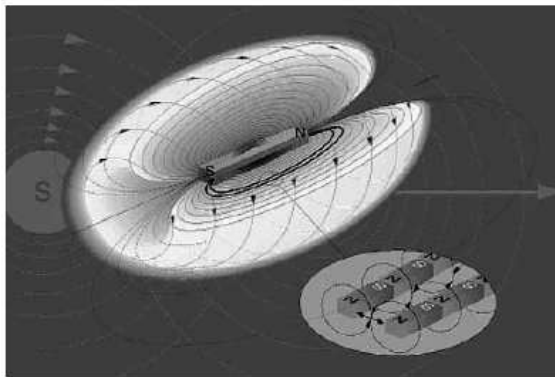


Previous Representation of the Magnetic Field

The previous representation of the magnetic field with vector arrows pointing from the north pole to the south pole.

New Representation of the Magnetic Field

The magnetic Space-Quanta-Flux SQF_m according to O. Crane. The rotation of the magnetic flux is in a clockwise direction around the longitudinal axis, when looking at the southpole of a bar magnet.



Space-Quanta-Flux and Field Lines

The magnetic Space-Quanta-Flux SQF_m according to O. Crane and the mutual repelling of the field lines (shown enlarged), based on the theory of the repelling of flows in opposite directions. (Fluid Dynamics according to Daniel Bernoulli, 1700-1782).

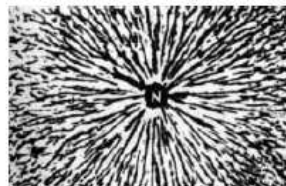


Fig. 7c. Magnetic field lines coming from the pole of a bar magnet which is standing upright. The SQF is being forced apart.

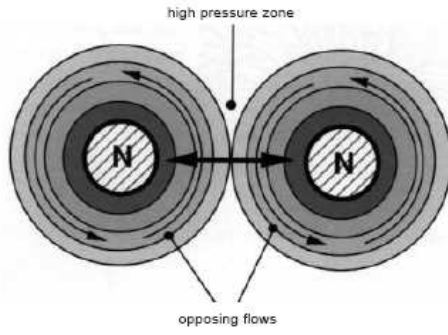


Fig. 8a. Repelling of opposing SQF

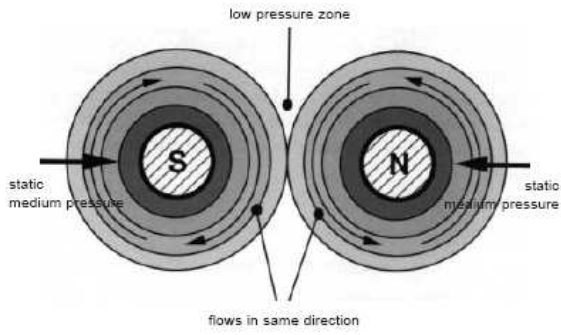


Fig. 8b. Effect of low pressure ("attraction") of SQF in same direc-

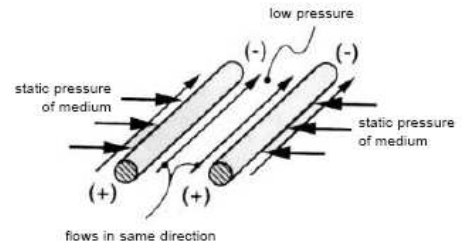


Fig. 9a. Effect of low pressure ("attraction") of SQF in same direction.

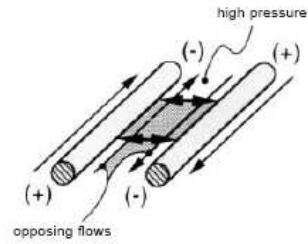
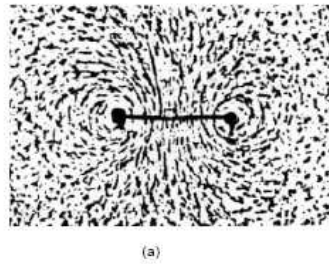
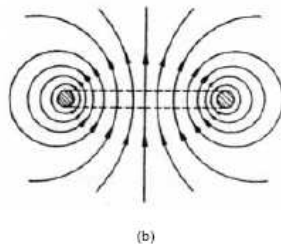


Fig. 9b. Repelling of Opposite SQF.



(a)



(b)

Fig. 10. Picture of Magnetic Field Lines of a Current Loop; (a) made visible with iron powder (b) drawn (please disregard vector arrows). Both pictures are a cross section of the SQF.

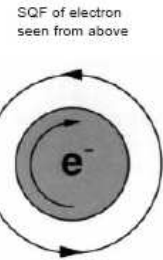


Fig.11a. Spin-Magnetism (Spin-SQF_m) of Electron

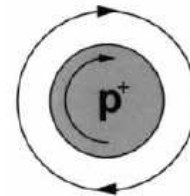


Fig.11b. Spin-Magnetism (Spin-SQF_m) of Proton

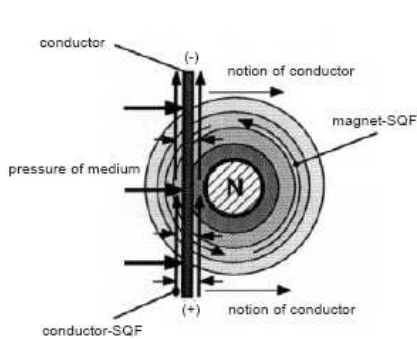


Fig. 12. Effects on a Current Carrying Conductor in a Magnetic Field

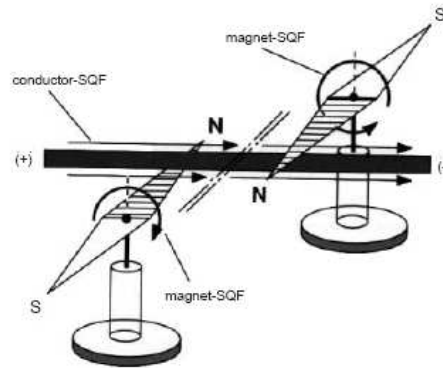
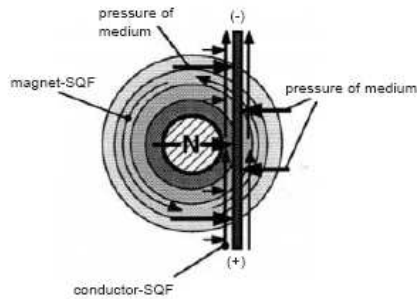


Fig. 13. The magnetic needle will so position itself that the SQF of the conductor and the SQF of the needle form unidirectional flows

Fig. 14a. Proof of unidirectional SQF on a vertical conductor.

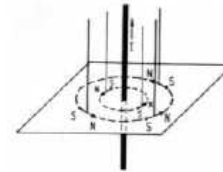
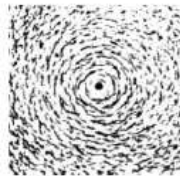


Fig. 14b. Using iron powder to make visible the cross section of SQF in a plane at right angles to the conductor.

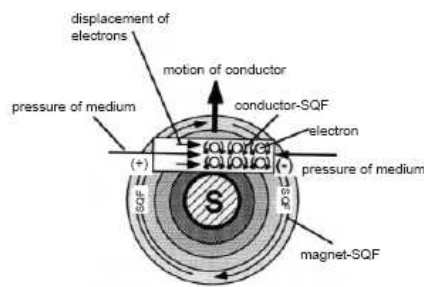


Fig. 15. Inductive Effects on Moving Conductors in a Magnetic Field.

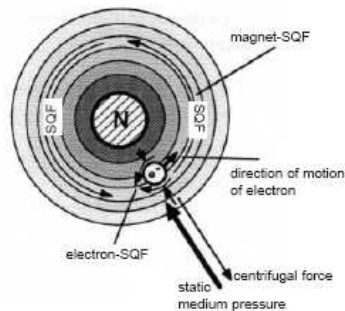


Fig. 18. Effects on Moving Electric Charges in a Magnetic Field.

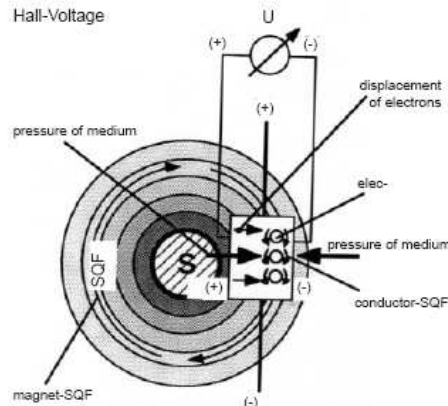


Fig. 17. Hall-Effect

<http://jnaudin.free.fr/html/sergeimg.htm>

The "Monstein Effect" Experiment - Tests Report

by

Sergei M. Godin

02/17/98

" I used dozen small FeBa permanent magnets, located in a plastic ring. A motor from old HDD 5" was used. Ring with magnets was centered and fixed between two alluminium disks. This design speeded up to 6000 rpm, then power was switched off and time up to a total stop was measured. "

" For effect strengthening, I have decided to increase the sizes and weight of a magnet. I have found a FeBa magnet with a external diameter 11 cm., internal diameter 4,5 cm. and thickness 1,5 cm. The magnet placed horizontally, northern pole upwards. All design was centered and clamped above by alluminium plate for increase of rigidity. The speed of rotation was defined by the frequency-meter and Hall sensor incorporated in a motor."

Comment: magnet size: D=61mm, d=24mm, h=4mm

Distance between magnet and metallic desk of the motor - 45mm

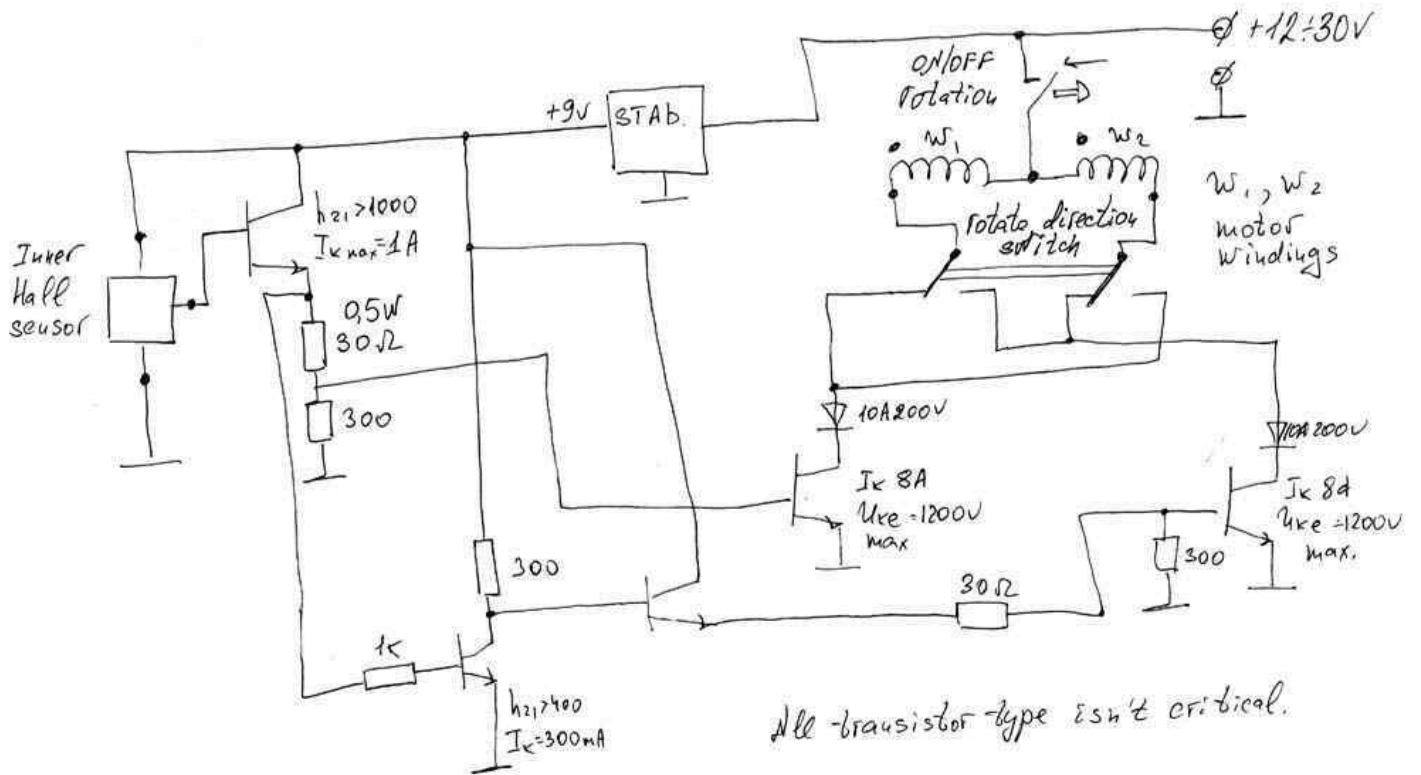
Cooper foil thick - 0.1mm

Unfortunately, Monstein Effect was not confirmed, all results may be explained by aerodynamics and vibration effects.

Experiments with big magnet to be continued...(Feb 10, 1998)

Sergei M. Godin
serjio@glasnet.ru





All-transistor-type isn't critical.

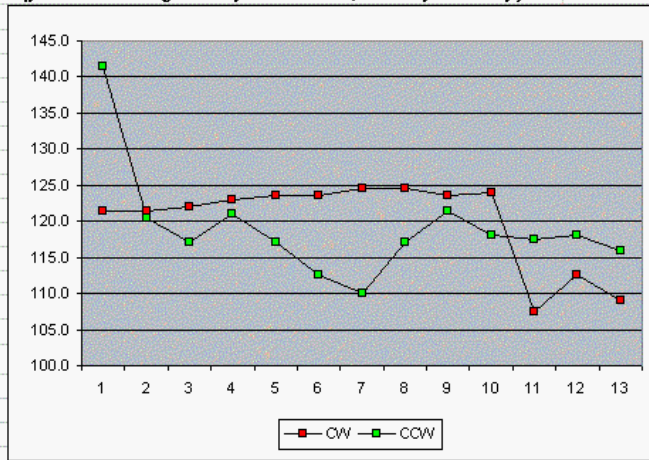
7 Feb. 98
Mos Kow *C Monstein*

Sergei M. Godin - Monstein effect Test - Feb 98

Email: serjio@glasnet.ru

6000 rpm To Full Stop Time in sec. (pure FeBa magnet in plastic case, North pole is up)

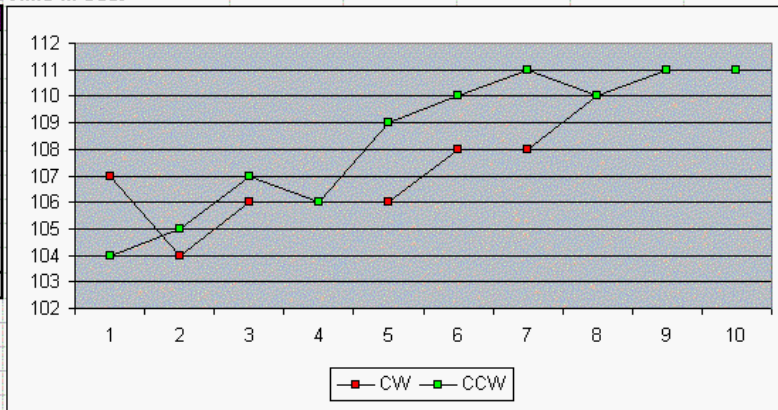
Num	CW	CCW	CCW-CW
1	121.5	141.5	20.0
2	121.5	120.5	-1.0
3	122.0	117.0	-5.0
4	123.0	121.0	-2.0
5	123.5	117.0	-6.5
6	123.5	112.5	-11.0
7	124.5	110.0	-14.5
8	124.5	117.0	-7.5
9	123.5	121.5	-2.0
10	124.0	118.0	-6.0
11	107.5	117.5	10.0
12	112.5	118.0	5.5
13	109.0	116.0	7.0
120.0	119.0	-1.0	



Next day test. The same magnet, North pole is UP

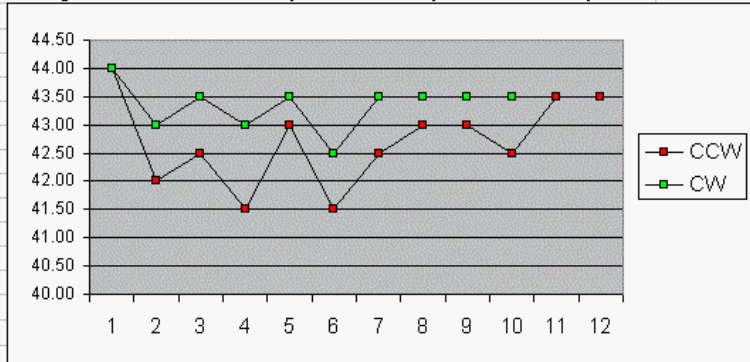
6000 rpm. To Full Stop Time in sec.

Num	CW	CCW
1	107	104
2	104	105
3	106	107
4	106	106
5	106	109
6	108	110
7	108	111
8	110	110
9	111	111
10	111	111
107.7	108.4	



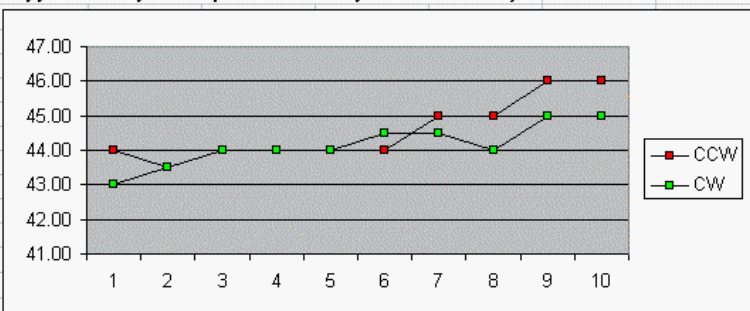
The same test conditions, magnet in dielectric case. (9000 to 3000 rpm Time in sec.)

Num	CW	CCW
1	44.00	44.00
2	43.00	42.00
3	43.50	42.50
4	43.00	41.50
5	43.50	43.00
6	42.50	41.50
7	43.50	42.50
8	43.50	43.00
9	43.50	43.00
10	43.50	42.50
11	-	43.50
12	-	43.50
43.35	42.71	



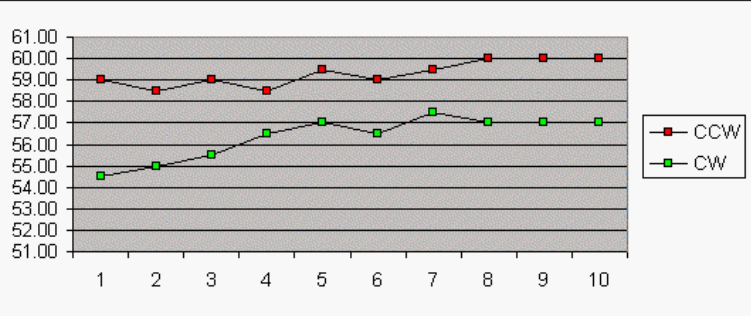
FeBa magnet was fully wrapped in cooper foil (9000 to 3000 rpm Time in sec.)

Num	CW	CCW
1	43.00	44.00
2	43.50	43.50
3	44.00	44.00
4	44.00	44.00
5	44.00	44.00
6	44.50	44.00
7	44.50	45.00
8	44.00	45.00
9	45.00	46.00
10	45.00	46.00
44.15	44.55	



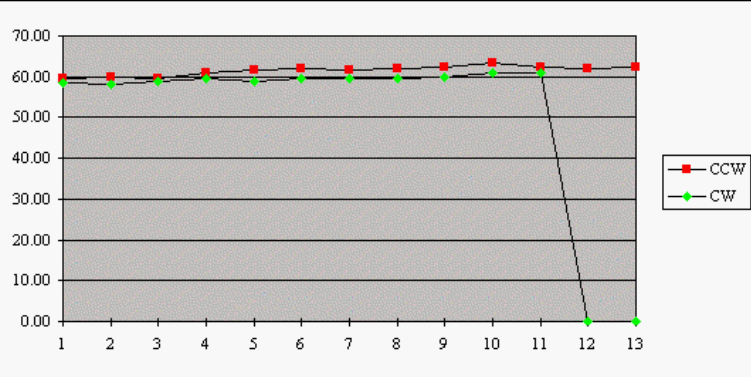
FeBa magnet was fully wrapped in cooper foil, speed was increased (12000 to 3000 rpm time)

Num	CW	CCW
1	54.50	59.00
2	55.00	58.50
3	55.50	59.00
4	56.50	58.50
5	57.00	59.50
6	56.50	59.00
7	57.50	59.50
8	57.00	60.00
9	57.00	60.00
10	57.00	60.00
	56.35	59.30



Next day test, the same conditions: N pole is up, magnet was wrapped by cooper foil, 12000 to 3000 rpm time)

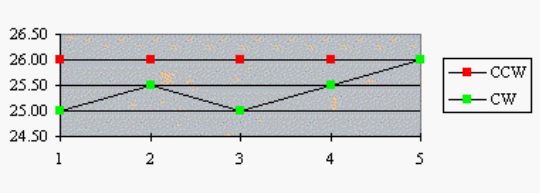
Num	CW	CCW
1	58.50	59.50
2	58.00	60.00
3	59.00	59.50
4	59.50	61.00
5	59.00	61.50
6	59.50	62.00
7	59.50	61.50
8	59.50	62.00
9	60.00	62.50
10	61.00	63.50
11	61.00	62.50
12	-	62.00
13	-	62.50
	59.50	61.54



For exact motor testing, magnet rotor was removed from the plastic platform.

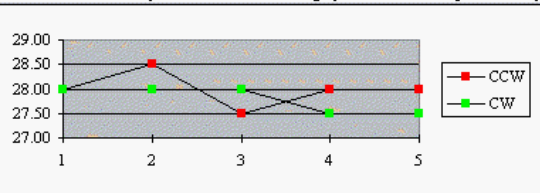
Speed - the same: 13500 to 6000 rpm

Num	CW	CCW
1	25.00	26.00
2	25.50	26.00
3	25.00	26.00
4	25.50	26.00
5	26.00	26.00
	25.40	26.00



Plastic platform than was removed for pure motor testing.(for low airodynamics)

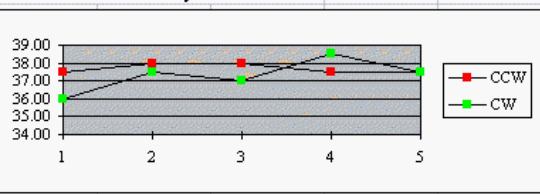
Num	CW	CCW
1	28.00	28.00
2	28.00	28.50
3	28.00	27.50
4	27.50	28.00
5	27.50	28.00
	27.80	28.00



For testing inner motor magnets influence, speed was increased to 18000rpm

Vibration was very low. 18000 to 6000 rpm time:

Num	CW	CCW
1	36.00	37.50
2	37.50	38.00
3	37.00	38.00
4	38.50	37.50
5	37.50	37.50
	37.30	37.70



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