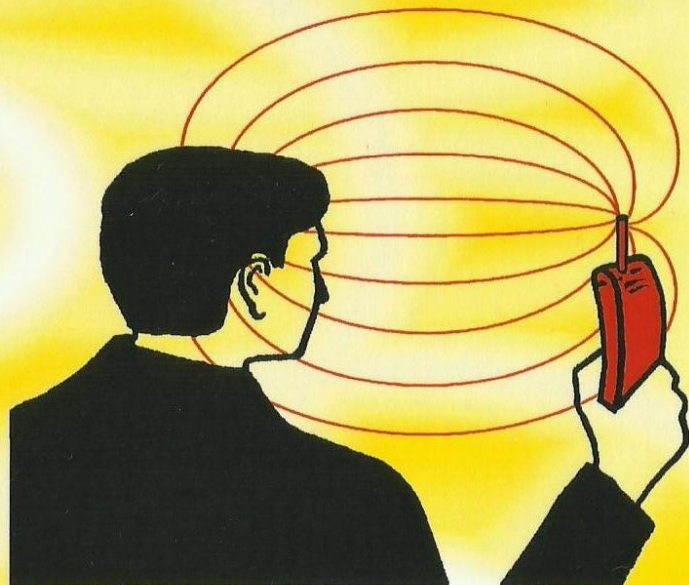


Konstantin Meyl

part 2

Scalar waves



From an extended vortex and field theory to a technical, biological and historical use of longitudinal waves.

Edition belonging to the lecture and seminar „Electromagnetic Environmental Compatibility“

Edition belonging to the seminar **part 2 - 3**
„Electromagnetic Environmental Compatibility“
by **Prof. Dr. Konstantin Meyl**

From Maxwell's field equations only the well-known (transverse) Hertzian waves can be derived, whereas the calculation of longitudinal scalar waves gives zero as a result. This is a flaw of the field theory, since scalar waves exist for all particle waves, like e.g. as plasma wave, as photon- or neutrino radiation. Starting from Faraday's discovery, instead of the formulation of the law of induction according to Maxwell, an extended field theory is derived, which goes beyond the Maxwell theory with the description of potential vortices (noise vortices) and their propagation as a scalar wave, but contains the Maxwell theory as a special case. With that the extension is allowed and doesn't contradict textbook physics.

Besides the mathematical calculation of scalar waves this book contains a voluminous material collection concerning the information technical use of scalar waves, if the useful signal and the usually interfering noise signal change their places, if a separate modulation of frequency and wavelength makes a parallel image transmission possible, if it concerns questions of the environmental compatibility for the sake of humanity (bio resonance, among others) or to harm humanity (electro smog).

From an extended vortex and field theory to a technical, biological and historical use of longitudinal waves.

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Scalar Waves

Edition belonging to the lecture and seminar
“Electromagnetic environmental compatibility”
of

Professor Dr.-Ing. Konstantin Meyl

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Preface to the lecture, 1st Edition 1996

The theme encloses the electromagnetic compatibility of both technical and biological systems. Only part of the electromagnetic wave can be considered for function troubles, namely the part that was absorbed and has rolled up to a vortex. The activity depends on the number of created vortices and of their lifetime, their decay.

The eddy current only manifests in conducting materials. In the air and in dielectric materials on the other hand the vortex of the electric field will form, also called the potential vortex. To calculate and to measure this vortex is our goal.

First we'll carry out a survey of the problems and the usual methods. From the analysis of unsolved problems the need for the introduction of the new vortex phenomena is deduced and an adequate field-theoretical approach will be chosen. Afterwards the potential vortices are calculated and their properties are discussed and interpreted.

For the purpose of proving their existence, on the one hand the Schrödinger equation will be derived and on the other hand the quantum properties of the most important elementary particles will be calculated and compared with the well-known measured values. Measurement and calculation are in excellent agreement for weight, charge, magnetic moment and spin. So the theory not only proofs its correctness, in addition it demonstrates it can achieve much more. The theory takes us to the unification of the well-known interactions and physical phenomena and shows itself as an unified theory.

In the practical conversion and usage of the theory there will not only be informed but by all means also be provoked as an entrance in a fruitfully discussion. Fundamental questions will be taken up like: What is information, energy, temperature or smell? The connection to the theme of the electromagnetic environmental compatibility is formed by the technical and the biological usage of the potential vortices, the energy transmission of Nikola Tesla exactly like the in a similar way functioning nerve conduction. Here we already can expect biological reactions.

This lecture, held for the first time in the winter semester of 1995/96, is available in book form, as an edition belonging to the lecture. This lecture will not deliver ready recipes or instructions. The goal is reached when the critical sense of the listeners and readers has been inspired and discussions have been set going. Everybody has to draw the consequences out of such a theory by him- or herself.

In addition to this lecture a seminar is offered, wherein several themes are supplemented or deepened, different theories are compared and possible consequences are discussed. The appearance of an edition belonging to the seminar has started in 1998 ^{<P>}.

Regarding the conversion of consequences both politicians and scientists are equally addressed, because the electromagnetic environmental compatibility has developed to one of the most urgent problems of today's world. But in last consequence all of us bury the worldwide responsibility for our environment.

<i>: K. Meyl: Electromagnetic environmental compatibility, Part 2 and 3 of this book, Edition belonging to the seminar.

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Scalar Waves

From an extended vortex and field theory to a technical,
biological and historical use of longitudinal waves.

Part 2

by

Professor Dr.-Ing. Konstantin Meyl

Edition belonging to the lecture and seminar
“Electromagnetic environmental compatibility”

(Original title: “Elektromagnetische Umweltverträglichkeit”)

Translated out of the German language

by Ben Jansen

(2000-2003)

* * *

Part 2: Edition belonging to the energy
technical seminar

Free energy and the interaction of the neutrino radiation

* * *

INDEL GmbH, Verlagsabteilung

Villingen-Schwenningen 1996-2003

Preface to the seminar

The point of a seminar is, to deepen, to practise and, as far as possible, to practically apply the material of a lecture. The knowledge of the content of the lecture hence is a prerequisite for the participation.

For the reader of this book that's tantamount to the recommendation, to have read the first part, the edition belonging to the lecture, before^{<i>}. Here the questions concerning the „electromagnetic environmental compatibility“ are asked and the necessary bases for their answering is laid. Also practical consequences for various areas of science are indicated.

The deepening most suitable should be made in form of a seminar, subdivided into the here presented part 2 to the energy technical seminar and a part 3 to the information technical seminar. Part 2 correspondingly concerns the energy technical aspect of electric or magnetic longitudinal waves, whereas part 3 is dedicated to the information technical aspect^{<ii>}. Because it concerns a book which merely for reasons of usefulness is published in three parts, the chapters are consecutively paginated. References to chapter 1 to 9 hence automatically relate to part 1. The numbers of the figures and tables as a rule are identical with those of the chapters, in which they are discussed.

The seminar should lead on over the pure reading, consuming or listening and should stimulate to join in. All involved persons may and should give ideas and ask questions, even if these may sound little orthodox. The scientific working method takes, that is struggled for answers and even is argued, if necessary. To reach this goal, it mustn't exist any obligation or censorship, neither for the leader of the discussion nor for the participants of the seminar.

The seminar is being carried out since the summer semester 1997. The works of the seminar written by students treat the knowledge of text books of the respective theme. Following the lecture the answers are discussed and compared to those of the theory of objectivity^{<i>} and other models of explanation. This procedure in this edition belonging to the seminar is reflected at some points, if for instance a chapter is completed with a „discussion“.

The first edition of this 2nd part still was incomplete and has been handed out to the participants of a congress in Switzerland instead of a manuscript belonging to the lecture the 17th of Nov 1998. The here presented second edition in the meantime to a large extent is complete, but surely not yet perfect. In accordance with the experience made with the first part of the book also for this 2nd part a third and revised edition, in which the ideas of the participants of the seminar and of the readers find consideration, will be due to be dealt with after a year. The reader of the second edition has to console himself with the fact that a lively seminar constantly is changing and developing further. And that has to be so.

Villingen-Schwenningen, January 1999

<i>: Electromagnetic environmental compatibility, Part 1, Edition belonging to the lecture, INDEL Verlagsabteilung, 1996, see page 1 – 218 of this issue.

<ii>: Electromagnetic environmental compatibility, Part 3, Edition belonging to the information technical seminar, 2002, see page 443 – 625 of this issue.

10. Oscillating interaction

A theory is not an end in itself, even if it sounds very convincing. It has to be measured by its applicability. As an entry into the practical consequences, which result from the theoretical part^{<i>}, the question about the validity of Kepler's laws is raised.

10.1 Kepler's laws

The "radius vector", a line drawn from the sun to a planet, sweeps out equal areas in equal periods of time. At least has taught us Johannes Kepler it that way (fig. 10.1). The balance of forces, the gravitation on the one and the centrifugal force on the other hand results in the *innermost planets of our solar system orbiting the sun very much faster than the outer planets* (Mercury in 88 days, the Earth in 365 days, Jupiter in 4333 days and Pluto in 90465 days!).

For the inner planets as well as the big planets Jupiter and Saturn Kepler's laws are still found confirmed. But that shouldn't apply anymore for the outermost planets of the solar system. Beyond Saturn should prevail changed rules as is said, based on observations of the Voyager spacecrafts^{<ii>}.

If we direct our view to an unknown galaxy, then does it rotate around its centre and in doing so to a large extent keeps its form. Despite rotation of its own an elliptic, a barred or even a spiral galaxy virtually doesn't change its characteristic form. *From this follows, that the inner stars of a galaxy are considerably slower on their way than the outer stars.* But we expected exactly the opposite.

According to Kepler's regularity the outermost stars would have to orbit extremely slow, in order not to be hurled into space as a result of the centrifugal force. But then a galaxy wouldn't keep its structure. The spiral form, as it already has been observed and classified by Hubble (fig. 10.2), merely would be an accidental exception as a momentary picture, but by no means the rule.

We have to take note, that the structure and in particular the cohesion of a galaxy can't be explained with Kepler's laws^{<iii>}.

<i>: Konstantin Meyl: Electromagnetic environmental compatibility, Part 1 of this book: Causes, phenomena and natural scientific consequences.

<ii>: Kendrick Frazier: Das Sonnensystem, Time-Life Bücher, Amsterdam (1991)

<iii>: The basic laws of the universe start to rock: „What is the matter with the galaxies? They rotate in their fringe ranges much faster, as is allowed by the laws of physics. Or is something wrong with these venerable laws? The astronomers and physicists stand for the dilemma to have to decide between the two alternatives: feign the observations as an other world or do we calculate wrong since centuries?“ (translated), Bild der Wissenschaft Nr. 2, 1989

Kepler's 1st law:

The planets move in elliptical orbits, with the sun at one focus.

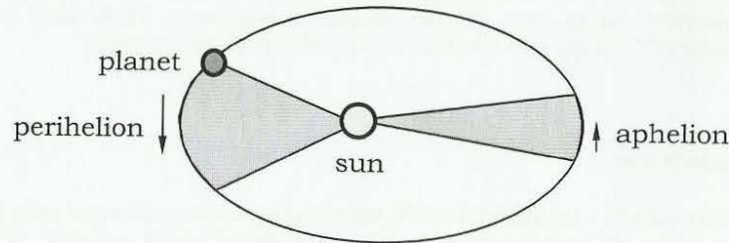


Fig. 10.1: Kepler's 2nd law (concerning the conservation of angular momentum):

The line drawn from the sun to the planet sweeps out equal areas in equal periods of time.

Kepler's 3rd law:

The ratio of the squares of the revolutionary periods of two planets is equal to the cube of their average distance to the sun:

$$\frac{t_1^2}{t_2^2} = \frac{r_1^3}{r_2^3} \quad (10.1)$$

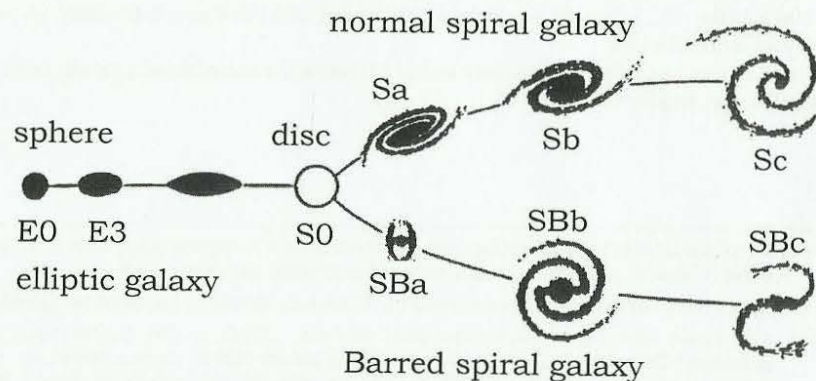


Fig. 10.2 The classification of the galaxies according to Hubble^{<i>}

<i>: according to H. J. Lugt: Vortex Flow in Nature and Technology, page 223

10.2 Unknown interaction

So which interaction keeps a galaxy together? We today believe to know four different sorts.

- I. The gravitation^{<i>}: But since Kepler's law isn't valid in this case anymore, the gravitation is ruled out from the start. Obviously for the distances in a galaxy it hardly is effective.
- II. The electromagnetic interaction: It is responsible for the structure of the atoms. Looked at from the outside atoms carry no charge, i.e. the charge conditions are balanced. A binding of our sun to the centre of the Milky Way by an electromagnetic interaction thus is ruled out as well.
- III. The strong interaction: Since for the proton another charge distribution is measured, as a single positively charged particle should have according to the normally used theory, the strong interaction was introduced as a nuclear force, to explain the big error, the grave difference between measurement and calculation. The good advice hence reads: instead of giving birth to postulates at random, first of all the fault should be searched for in the normally used theory^{<ii>}!
- IV. The weak interaction: It quite obviously is involved in the particle decay^{<ii>}. Both, the weak and the strong interaction, only have an extremely short range. With this property they consequently won't be able to keep a galaxy together.

Conclusion: In a galaxy a still unknown interaction takes effect, and science is requested to search it.

Both interactions with infinite range, the electromagnetic interaction and the gravitation occur as a result of static fields, therefore assume a constant charge or a constant mass. Considered more exactly in that case it merely can concern special cases.

Gravitational waves, which reach our earth and which are detected in very costly experiments^{<iii>}, already show that the existence of alternating fields can't be excluded and oscillating interactions by all means are conceivable! The physical research at present probably is on the right track. The researchers however don't have ready an usable explanation yet. We accept the challenge.

<i>: Derivation of Kepler's 3rd law in fig. 11.10

<ii>: Konstantin Meyl: Potentialwirbel, Band 2
INDEL-Verlag, Villingen-Schwenningen 1992, ISBN 3-9802542-2-4

<iii>: Gero v. Randow: Wenn kosmische Katastrophen Raum und Zeit verbiegen,
zum Thema Gravitationswellen-Detektor, VDI Nachrichten Nr.9, 1.3.91, S.32

Analogy:

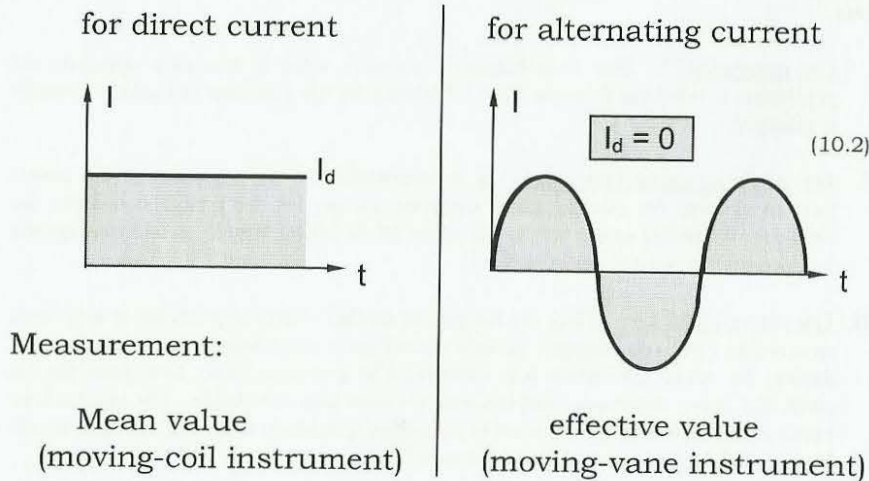


Fig. 10.3: Direct current and alternating current

constant charge: Electromagnetic Interaction	oscillating charge: Resonant Interaction
constant mass: Gravitation	oscillating mass: Levitation

Fig. 10.4, a: The four fundamental interactions

10.3 Harmony of the alternating current engineers

Today's situation can be clarified by the following picture: you engage a „direct current engineer“ to measure the tension voltage in the socket of our power supply system. The „dyed-in-the-wool direct current engineer“, who never has heard anything of alternating current, reports: „No tension voltage is measurable“. If he for reason of your doubtful expression looks still more exact he will realize: „The pointer of my moving-coil instrument strangely fidgets around zero, but the swing is so small that one confidently can touch it“. (fig. 10.3)

Modern science is accustomed to say, *without a valid theory and without technical measurability nothing can exist, what mustn't exist*. If you drop dead after the experiment, then you probably had a weak heart or other afflictions. In such cases as a rule the victim himself is to blame and by no means theoretical physics.

In the case of our power supply system the answer is known: The *mean* of the alternating voltage of the network is *approximately zero*. The pointer of a moving-coil instrument for reason of its inertia can't follow the fast changing anymore and only fidgets on the spot. The *effective value* however amounts to around 230 Volts. But to measure it you need another device, for instance a moving-vane instrument. Seen so, direct current describes the special case of alternating current with frequency zero.

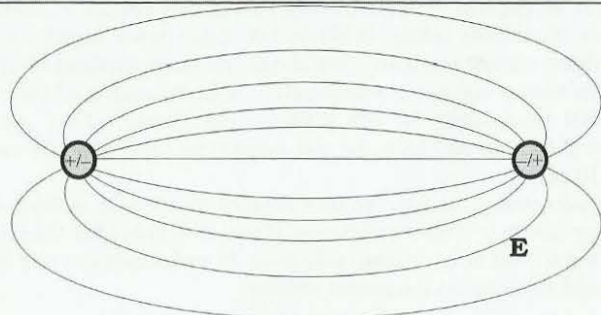
The properties of alternating current can be depicted best by an extraterrestrial observer. He will tell us: Seen from a distance at least at night a great harmony seems to prevail on earth. All lights in the streets and cities twinkle completely synchronously. All generators are in resonance among each other and with all consumers. There are two big races: The 50 Hertz race and the 60 Hertz race, which appear if the earth turns further and the 50 Hertz race is switching off again its twinkling lamps.

The synchronization necessary for an exploitation of alternating fields is so obvious for us, that hardly anybody realizes, that a consumer operated with only one Hertz difference to the frequency of the network can't be supplied with power anymore. Apart from the correspondence in frequency it even depends on the correct phase. The phase angle must be between 0 and $\pm 90^\circ$. This corresponds to an efficiency factor $\cos \varphi$ between 1 and 0.

The cable connections serve both the transport of current and the synchronization of all the generators and consumers connected to the network. The frequency is kept so constant that simple clocks, switching stations and even old record-players can be operated synchronously with the frequency of the network.

The synchronization of the feeding in power stations is supervised by a station of its own, which dictates the time. It is true that we aren't capable of seeing the twinkling of the lamps anymore for reason of the inertia of our eyes, but it can be detected and filmed with high-resolution cameras. Even if we can't perceive the harmony of the alternating current engineers, it nevertheless exists.

The effect of open field lines^{<i>} ⇒ **charge**



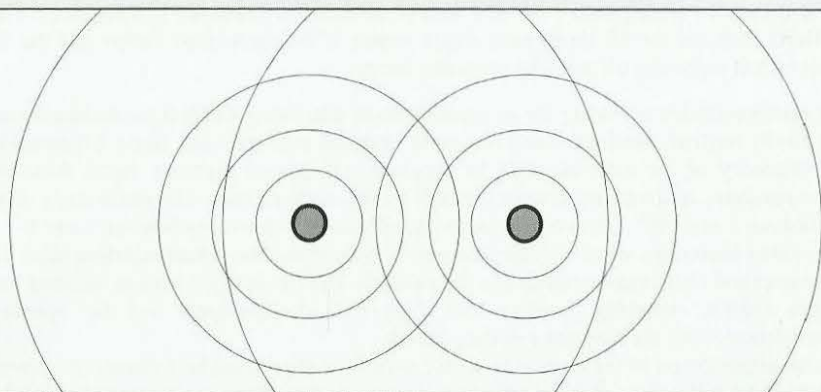
constant charge:

**electromagnetic
interaction**

oscillating charge:

**resonant
interaction**

The effect of closed field lines^{<i>} ⇒ **mass**



constant mass:

gravitation

oscillating mass:

levitation

Fig. 10.4, b: Explanation of the fundamental interactions

<i>: Konstantin Meyl: Potentialwirbel, Band 2, INDEL-Verlag (1992)
see also in Part 1, chapters 6.8 and 6.9

10.4 Four fundamental interactions

These considerations suggest, that also gravitation and electromagnetic interaction merely describe the special case of oscillating interactions with frequency zero. To avoid confusions, we'll have to think of new names.

The *electromagnetic interaction* can be clarified by means of *open field lines*, which start at a charged body and end again at another body of unequal charge. In physics classes it is normal to make the field lines of a magnet visible with iron filing. Between the unlike poles a force of attraction is observed^{<i>}.

If we this time assume that both magnetic poles change their polarity at the same time, then the force will decrease for a short time during the changing of polarity, to afterwards be active again in full magnitude and in the same direction. Therefore a force of attraction is observed again even for a reversed polarity.

The generalization hence reads: *The electromagnetic interaction will occur also in the oscillating case, but in weakened form, if both bodies involved in the interaction change their polarity synchronously and if they are in resonance.* A name by analogy would be „*resonating interaction*“ (table 10.4).

It is known of the electromagnetic interaction, that its effect is larger than that of the gravitation by powers of ten. This presumably has to do with the described and observable *bundling up of the open field lines*, whereas closed field lines can't be bundled up. The gravitation hence is linked with the *closed field lines*, which surround all elementary particles, every atom and every body^{<i>}.

The opposite of the bundling up is the repulsion of open field lines, for which reason here also forces of repulsion can occur. For the gravitation however no repulsion is observed, because closed field lines virtually can't be influenced.

Apart from the circumstance that the effect generally will be smaller in the oscillating case, similar properties are to be expected. Also its range will be infinite as well. It is recommended to call the case of oscillating charges, as already said, „*resonating interaction*“ and the case of oscillating masses, the oscillating gravitation, „*levitation*“ (table 10.4).

the term „*levitation*“ is very appropriate, but not new. Unfortunately until now no generally binding definition existed, what should be understood by that, for which reason misinterpretations and irritations can't be excluded. Mostly *levitation* is linked to a cancellation of gravity, up to a state of free floating, but we will see that quite other phenomena become describable with this term.

10.5 Resonating interaction

The question, what keeps a galaxy together, now can be answered unambiguously. The well-known interactions already have been excluded. If for the enormous distances the gravitation can't keep the outer stars anymore in accordance with the Kepler rule, then the levitation won't be able at all.

Example: central star S_z with 3 planets P_1 - P_3
and with 4 neighbouring stars S_1 - S_4

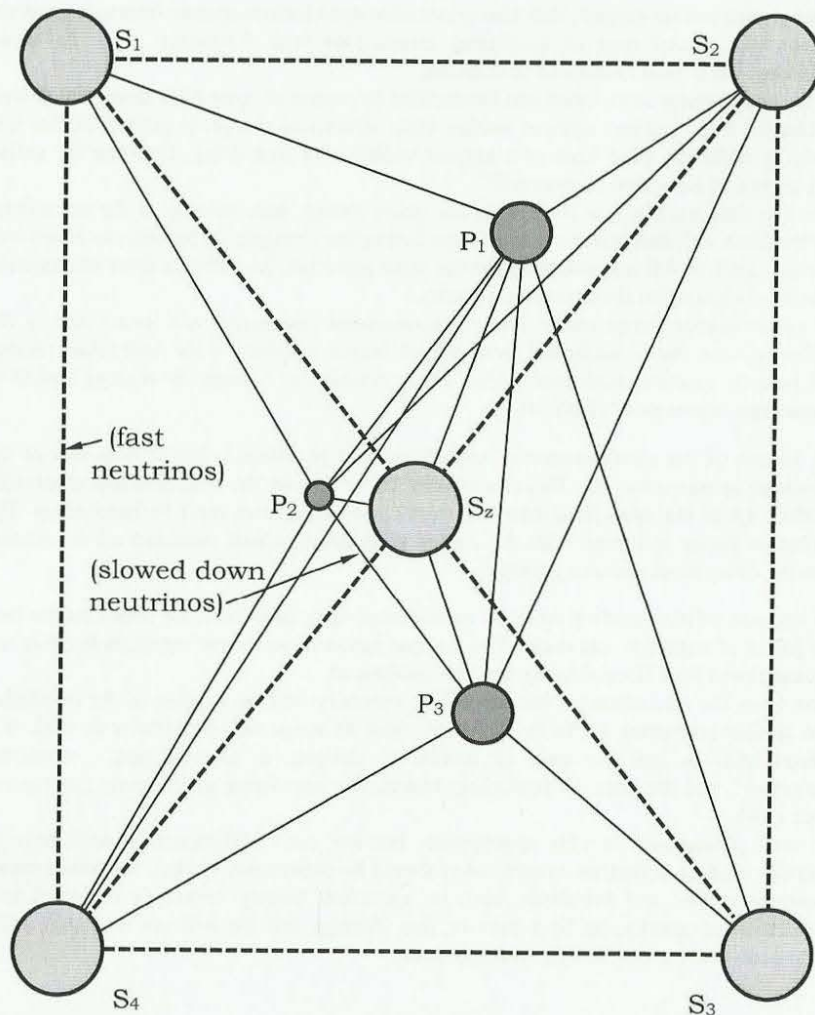


Fig. 10.5: The invisible threads of a resonant interaction

milky way-radius: $15000\text{pc} \cdot 3 \cdot 10^9 = 45 \cdot 10^{16} \text{ km}$

sun system-radius: $50 \text{ a} \cdot 15 \cdot 10^7 = 7,5 \cdot 10^9 \text{ km}$

$$\frac{45 \cdot 10^{16}}{7,5 \cdot 10^9} = 1.27 \cdot 10^8$$

the resonant interaction is more than eight decimal powers bigger than the gravitation.

Therefore the oscillating charge is left. Actually the resonating interaction will reach to the outermost areas of a galaxy. The bundling up of the field lines results in the centre of the galaxy and one of its stars to stand in an exclusive resonance to each other, what looked at from the outside looks like, as if the star hangs at an invisible string or a „rubber band“ and thus turns around the centre.

Because quite a few stars hang at the centre of a galaxy, it can be assumed that it provides correspondingly many resonance. The centre perhaps is comparable with an extremely broad banded transmitter, which operates on all channels simultaneously. The stars then pick as a receiver the for them suitable channels and hang themselves by „rubber band“ at the heap (fig. 10.5).

Should there exist any *particles with an oscillating charge*, which synchronize between centre and star with the resonating interaction, then they will mediate between both partners. If we assume that the centre at one channel just is positively charged, then all at the same time negatively charged particles will be attracted, the positively charged particles however repelled. Whereas the unlike particles in the centre participate directly in the production and maintaining of the oscillation, the like positively charged particles will be hurled into space.

But at the same time does a star, which clings to the centre, have to be negatively charged. It hence attracts the repelled particle. The particle thus drifts from the centre to the star, even then if all three, the centre, the star and the particle, change in polarity. The result is, that the stars grow in diameter by collecting the particles. *Only because our sun actually grows, it has the chance, to sometime become a red giant.*

Since the sun radiates, as is well-known, in every second a radiation equivalent of 5 million tons, it permanently has to be supplied with a substantially greater amount of matter. If a resonating interaction should occur, then our sun will get its „material“ supplied from the centre of the Milky Way and that is a **black hole**.

But no particle with a mass comes out of such a hole, yes not even light. For a particle to be able to leave the black hole, it should have *neither charge nor mass*. At most an oscillating charge and mass would be allowed. Such a particle would have an enormous *ability of penetration* as a result of the missing static interaction. It would be able to rush through the earth unhindered.

According to actual knowledge only **neutrinos** have the described properties. One also knows that the centre of our Milky Way represents a mighty source of neutrinos.

From this derivation follows:

1. As mediators of the resonating interaction serve synchronously oscillating neutrinos.
2. Starting with the proof of the neutrinos it should be able to backwards also prove the existence of the resonating interaction.
3. If, as a practical consequence, we imagine that the centre of the Milky Way wouldn't supply neutrinos anymore. Then the whole galaxy would fall apart and not one of its stars would shine anymore.



Fig. 11.1: The Atlantic ocean floor<i>

11. The growing globe

11.1 Long-distance effect of the neutrinos

The long-distance effect thus lies in the circumstance that the neutrinos, in the case of a resonance of the source of neutrinos and the receiver, span an invisible „rubber band“ between both, which is called resonating interaction and keeps the two together.

As a *transmitter of neutrinos* functions for instance a supernova, the death of a star, in which 98% of the mass annihilates under emission of neutrinos or a black hole, which continually swallows light and matter and spits them out again as neutrinos after a still unexplored „process of digestion“. The process, which in the case of a supernova takes place as a singular occurrence, in a black hole possibly takes place permanently.

The hurled out neutrinos on the other hand serve the sun as a *source of energy*.

A *receiver of neutrinos* then for instance is our sun. So that the hard and very fast *cosmic neutrinos* become utilizable for the sun, they at first have to be slowed down. But that is only partly successful:

1. Some very fast ones manage to pass through the sun and fly out again on the other side of the sun. The compared to the cosmic neutrinos strongly slowed down neutrinos then are called *solar neutrinos*.
2. Another part can be further slowed down and materialized. As a result of the oscillating mass of the neutrinos as well particles of matter as also some particles of anti-matter are formed. *The particles of matter make the sun grow.*
3. The with matter incompatible anti-matter annihilates under emission of light as is well-known. *For this and for no other reason our sun shines.*

Also the planets have such a *neutrino reactor* at their disposal. *Only so the heat in the inside of the earth is explicable.* It can be assumed that the planets materialize less the fast and hard cosmic neutrinos and that they are served more by the slowed down *solar neutrinos*, which our sun releases again unused.

As is well-known radiates the planet Jupiter already today twice as much radiation energy, as it from the sun receive. In this typical encyclopaedia type balance the involved neutrinos of course are not considered. But it shows that Jupiter is on the best way to become a sun itself. Its moons then will become planets.

From this the example we also see that with increasing mass the crust of the planet becomes thinner and thinner at the expense of the neutrino reactor in the inside, until it finally is eaten up and the celestial body openly starts to shine. Astronomers report for reason of their observations of the formation of more and more new stars.

One part of the collected neutrinos thus is materialized by the planet. In the case of our earth it contributes to its growth.

Who doesn't want to believe that the earth becomes bigger, should look at modern maps of the oceans, on which the topography of the ocean floor is shown. According to the theory of Alfred Wegener concerning the continental drift North and South America on the one hand and Europe with Africa on the other hand steadily drift apart since 200 million years. The result can be read at the atlantic ocean floor. The gaping, chequered rift zones to the right and left of the Mid-Atlantic Ridge show how the earth is torn apart (fig. 11.1).

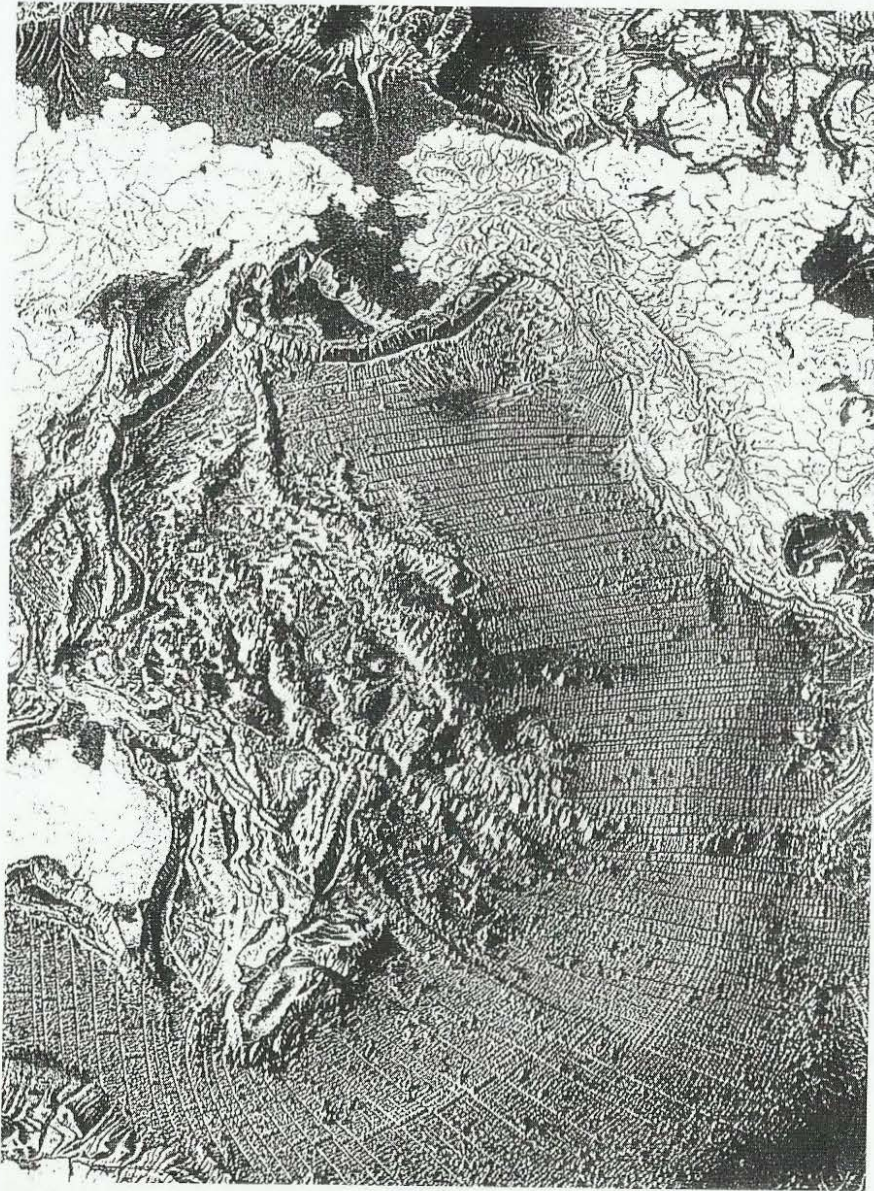


Fig. 11.2: The pacific ocean floor^{<i>}

11.2 Model of expansion

Geographers assume that at another point to the same extent continental plates are subducted and molten. That thus has to happen in the Pacific Ocean. But the sea maps tell one just the opposite (fig. 11.2). At the ocean floor of the Pacific Ocean the same rift formations are found as in the Atlantic Ocean (fig. 11.1). That means that America drifts away from Australia and Asia exactly as from Europe, without being crushed or molten in doing so.

The only possible answer thus is: *the earth grows*.

The characteristic rift zones in addition are found around the Antarctic. From this the conclusion can be drawn that the 7th continent slowly is moving away, while the biggest habitable mass of land predominantly stays behind on the northern hemisphere, by Eurasia and North America forming a clip around the North Pole.

Concerning the evolution of the earth there are and were numerous approaches in various directions. Paul Dirac^{<i>} at his time postulated, the brightness of the sun should decrease as a result of a decrease of the gravitational constant as well. In contrast to that Astrophysicists today observe just the opposite (Ingersoll 1987). According to the hypothesis of Carey^{<ii>} energy will transform in matter in the universe. According to the idea of Oesterle^{<iii>} aether particles are absorbed, which make our globe grow. Also other research scientists share the idea of the growth of the earth with him in their reports^{<i4,5,6>}. As a geologist Oesterle^{<iii>} cites his colleague Herzig: „The at the Mid-Oceanic Ridge newly produced oceanic crust has to be consumed again at other points, because otherwise the earth would expand“ and criticizes the „plate tectonicians“ that they would postulate their model without physical grounds.

He gives some arguments for the correctness of the model of expansion^{<iii>}:

- a) **Subduction:** The already discussed missing of zones of subduction and of melting of continental plates to the assumed extent.
- b) **Paleomagnetism:** errors and mistakes in the hypothesis of the migration of the poles.
- c) **Continental depth drillings:** They brought much higher temperatures in depths from 4000 meters, as expected and calculated according to models.
- d) **Stand of the sea water:** Only if the water can spread in newly forming oceanic basins it can be explained, why the covering with water on earth continually is going back. This argument we want to investigate with a derivation of our own.

<i>: Dirac, P. A. M. Nature 139, p. 323 (1937)

<ii>: Carey, S. W.: Theories of the Earth and Universe. Stanford University Press: 1-413, Stanford, California

<iii>: Oesterle, O.: Goldene Mitte: Unser einziger Ausweg, Universal Experten Verlag, Rapperswil (1997), ISBN 3-9520261-9-0

<i4>: Hilgenberg, O. C.: Vom wachsenden Erdball, S. 1-56, Eigenverlag, Berlin (1933) und Neues Jahrb. Geol. Paläont. Abh. 116, 1, Berlin (1962)

<i5>: Jordan, P.: Die Expansion der Erde. Vieweg 1-180, Braunschweig (1966)

<i6>: Giancarlo Scalera, K.-H. Jacob: Why expanding earth? Istituto Nazionale di Geofisica e Vulcanologia, Roma and Technical University of Berlin 2003

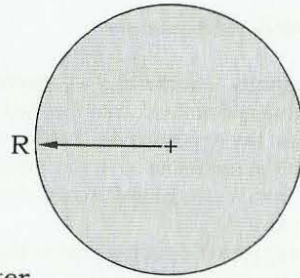
Today's earth:

equatorial radius: $R = 6378 \text{ [km]}$

earth's surface: $O_E = 4 \cdot \pi \cdot R^2$
(sphere) $= 5,112 \cdot 10^8 \text{ [km}^2\text{]}$

29% of this area is land and 71% is water
for an average water depth of $t_w = 3.8 \text{ [km]}$ results a

water volume of: $V_w = 0,71 \cdot O_E \cdot t_w = 1,38 \cdot 10^9 \text{ [km}^3\text{]}$ (11.1)

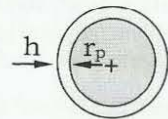


The earth **200 million years ago** (super continent: **Pangaea**):

today's land area (29%) was 100% of the earth's surface.

Pangaea surface area: $O_p = 0.29 \cdot O_E$
 $= 1,48 \cdot 10^8 \text{ [km}^2\text{]}$
 $= 4 \cdot \pi \cdot r_p^2$ (11.2)

Pangaea radius: $r_p = \sqrt{O_p / (4 \cdot \pi)}$
(corresponds to $= 3435 \text{ [km]}$
the radius



of the sphere of shelf): $= 54\%$ of today's radius

Pangaea volume: $V_p = \frac{4}{3} \cdot \pi \cdot r_p^3 = 1,697 \cdot 10^{11} \text{ [km}^3\text{]}$ (11.3)

Pangaea was covered with water $h \text{ [km]}$ high:

volume: $V = V_p + V_w = \frac{4}{3} \cdot \pi \cdot (r_p + h)^3 = 1,71 \cdot 10^{11} \text{ [km}^3\text{]}$ (11.4)
 $= 15,7\%$ of today's volume of the earth

$r_p + h = (3 \cdot V / 4 \cdot \pi)^{1/3} = 3443,8 \text{ [km]}$ (11.5)

Pangaea water-level h above the NN (sea-level) at that time:

$h = 8,78 \text{ [km]}$ (11.6)

Fig. 11.3: The calculation of the covering with water on earth 200 million years ago

11.3 Ancient Egyptian legend of Genesis

We don't have to search long for evidence. If we go back 200 million years in the history of the earth, as all continents still were united and formed the super continent Pangaea, as the 29% landmass of today thus constituted 100% of the earth's surface. At that time the diameter of the earth was almost half of today's diameter (exactly 54%). But if one distributes the amount of water of our oceans of today over the smaller earth, then possibly the water stood the young earth up to its ears in a first rough estimate. We now want to calculate how high the water stood.

For that we determine at first the water volume of today's oceans, by multiplying 71% of the earth's surface O_E with the average water depth. In doing so it is supposed that the water volume has not changed in the course of time. As an approximation this assumption could be correct if the factors, which influence the water volume, mutually compensate.

On the one hand it has to be taken into account that in the process of fusion in the inside of the earth apart from other materials also juvenile water is formed, but on the other hand the water volume is reduced by photosynthesis and by the splitting of water molecules. In the case of the newly formed earth it should concern roughly one cubic kilometre per year^{<i>}. The photosynthesis however possibly can be estimated by means of the formed oxygen of the air just as the splitted water by the content of oxygen of the waters and the seas. Since the processes are subject to temporary fluctuations, the exact estimate is difficult. At least should an effect of compensation more or less be taken into account.

Next we calculate the surface of the earth 200 million years ago, the super continent, which Alfred Wegener called Pangaea. If the 29% continental land mass of today at that time constituted the whole surface, then the diameter of the earth at that time was determined at 54% of today's diameter, then the volume together with the water volume would amount to only 15.7% of today's volume and the water stood 8.78 kilometres high above the level NN at that time (fig. 11.3). With that even the highest peaks were under water.

Consequently stands in the *legend of Genesis of the ancient Egyptians*:

„They tell us that the earth was completely covered with water and that the earth rose from the water. It is talked about a primeval hill, of which creation took its start, on which the first sunrise and sunset was observed“^{<ii>}.

If at that time life only existed in the water, of which we today still can detect the remains in excavations in mountains and plateaus, then it surely wasn't because the evolution had forbidden living on the land. *There existed no land!* All land was lying under water.

But if, looked into the future, the land area increases further at the expense of the surface of the sea, then our earth sometime will dry up, as already other planets before us, e.g. our neighbouring planet Mars.

<i>: Oesterle, O.: Goldene Mitte: Unser einziger Ausweg, Universal Experten Verlag, Rapperswil (1997), ISBN 3-9520261-9-0

<ii>: Robert Bauval und Graham Hancock: Der Schlüssel zur Sphinx, List Verlag (1996), S. 253 and in der Sendung: Die großen Rätsel VII am 25.5.97 in S 3

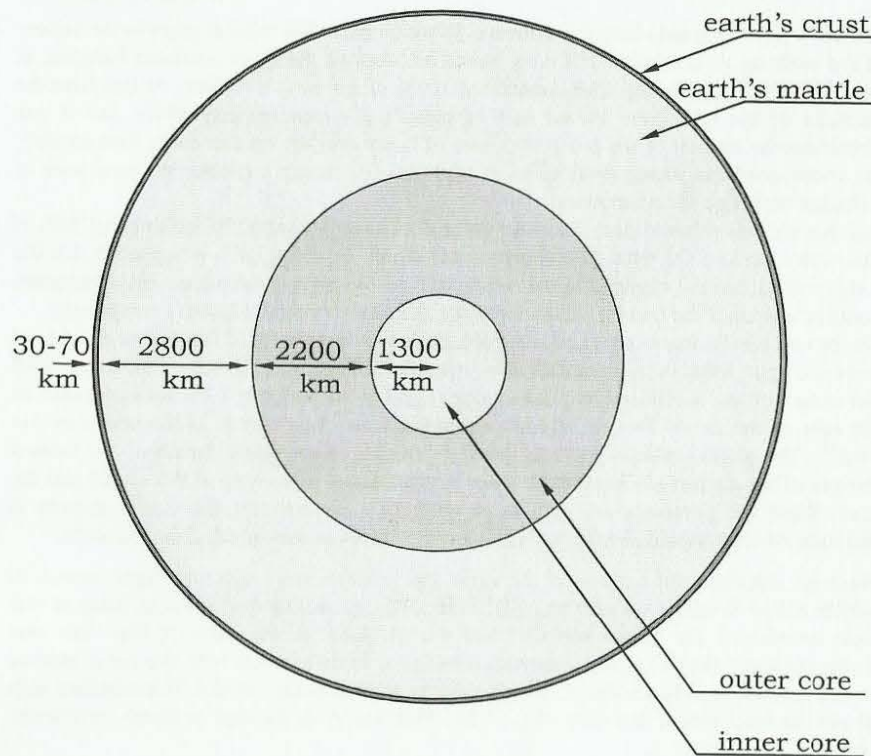
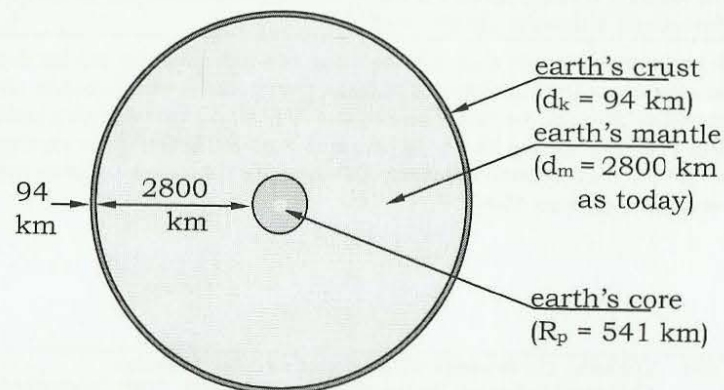
a. **Today's earth:**b. The earth **200 million years ago** (super continent: **Pangaea**):

Fig. 11.4: The inner structure of the earth on an average

11.4 Inner structure of the earth

Next the question is raised: How fast does our earth actually grow? The calculated growth, distributed over the 200 million years, results in a yearly increase in the diameter of the earth of less than 0.1 mm. Carey^{<i>} assumes 0.04 mm per year and Owen^{<ii>} only 0.01 mm per year.

Actually the young earth must have been somewhat bigger than calculated, because as a result of the smaller gravitational acceleration the density of the matter must have been smaller. But this changes nothing to the relations, because the less dense earth was surrounded by likewise less dense water, the water-level nevertheless reached the peaks, as already calculated.

For indicating absolute linear measures and the calculation of the gravitational acceleration the respective density should be considered. In most calculations the density is cancelled out, so that as well can be calculated with an unchanged density.

A grave error however lies in the assumption of a linear growth. Hilgenberg assumes an exponential growth^{<iii>} and gives as a reason for the empirical approach of the e-function the „law of organic growth“. In order to now not to speculate or to postulate in the same manner, we will derive and found our approach.

If namely the earth grows, then its core of fusion also grows, which causes the growth to take place accelerated, etc. A customer of a bank, who sees his amount of money grow according to such a regularity, will be given information immediately about the growth rate with a compound interest calculation.

But how big is the growing fusion reactor of our planet? According to today's level of knowledge about the structure of the earth the inner core is surrounded by the outer core and that again by the earth's mantle. On top floats the thin, but firm earth's crust, on which we live. The inner core has a radius of nearly 1390 km, the outer core stretches to a radius of 3500 km, whereas the crust is only between 10 and 78 km thick, dependent on the geographical latitude^{<iv>} (fig. 11.4).

<i>: Carey, S. W.: Theories of the Earth and Universe. Stanford University Press: 1-413, Stanford, California

<ii>: Owen, H. G.: Has the Earth increased in size? - In: New Concepts in Global Tectonics, Texas etc. University Press (1992), p. 289-295, Lubbock

<iii>: Hilgenberg, O. C.: Vom wachsenden Erdball, Berlin 1933, Eigenverlag, Seite 31 und 32

<iv>: Mitton, S. (Herausg.): Cambridge Enzyklopädie der Astronomie (The Cambridge Encyclopaedia of Astronomy), Orbis Verlag (1989)

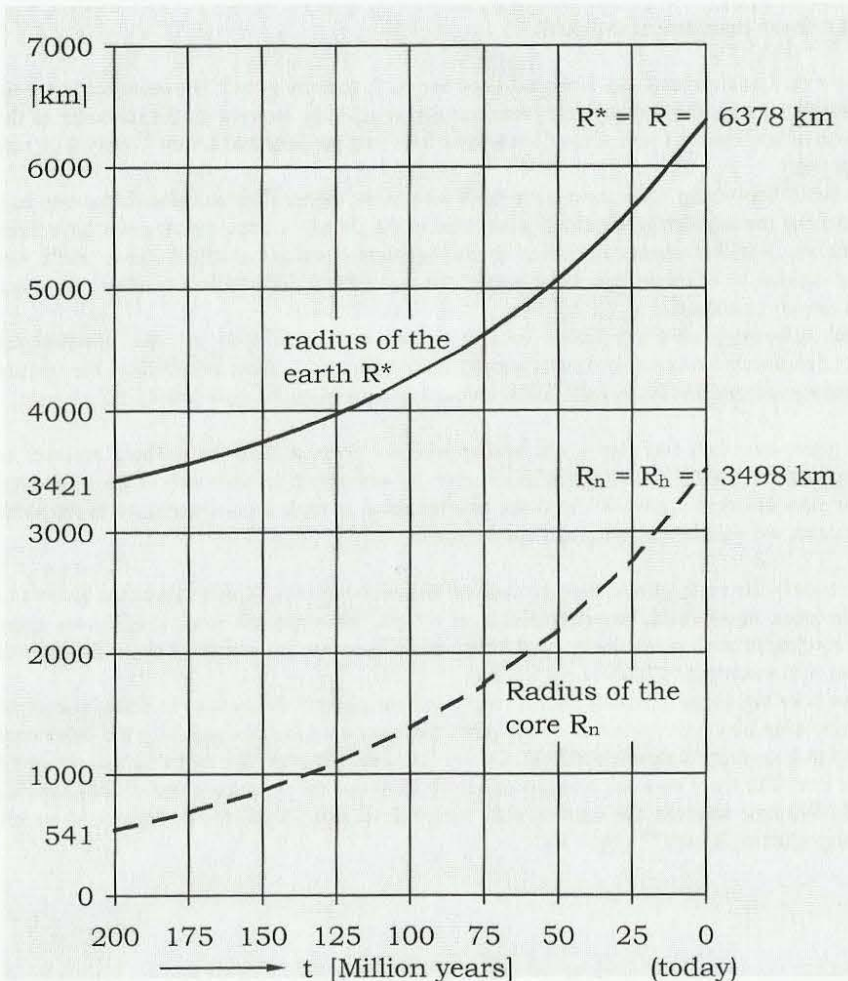


Fig. 11.5: The change in the radius of the earth and of the core in the course of millions of years until today.

calculation:
(see fig. 11.6)

$$R^* = 2879,5 + 541 \cdot q^{n/3} \text{ [km]} \quad (11.7)$$

t years ago: with:

$$t = 2 \cdot 10^8 - n \text{ [a]} \quad \text{and:} \quad q = 1 + 28 \cdot 10^{-9}$$

correspondents to
the approximation:

$$R^* = 2880 + (6378 - 2880) \cdot e^{-t/\tau} \text{ [km]} \quad (11.8)$$

with the time constant: $\tau = 107,1 \text{ Mio. Jahre}$

11.5 Earth's core as a converter of neutrinos

I proceed from the assumption that the *conversion of neutrinos* and *materialization* in elementary particles takes place in the *inner core*. For the conversion no energy at all is used, because the inner energy together with the outer energy of the particle amounts to zero. The neutrinos merely have to be remodelled into another structure and for that they at first have to be slowed down with the help of the oscillating interaction.

During this process of slowing down, as said, no heat is formed because in the case of a mass less particle no energy can be set free in the domain where the classical law of conservation of energy is valid. Only after completion of the process of materialization we are able to detect mass and energy of neutrinos.

But if the oscillating interaction is taken as a basis, the oscillation with opposite phase between particle and earth's core, then contrary to all expectations a *cooling down* takes place. If the particle has reached its region of destination in the core, then the oscillations are overlapping. Mathematically seen they are added with reversed sign; they thus are subtracted. The result of the mutual compensation is the decrease of the thermal oscillation and the cooling down of the region which was expected.

In addition the formed particles with a mass mutually contract (see part I, chapter 8.3 and 8.4) and in doing so are further cooling down, as we will derive (chapter 12.7 with fig. 12.8). The physical limit of the process of contraction and cooling down is formed by *absolute zero*, at which no thermal oscillation at all occurs anymore, so that *superconduction* becomes possible with the result of giant electric currents and magnetic fields, which can be detected even at the earth's surface in damped form, for instance with a compass.

The necessary heat energy is flowing towards the quick-frozen inner core from the outside, principally from the outer core. Here, in the core, from the neutrinos slowed down to the speed of light various elementary particles are formed. Most of them immediately fall apart, to form other configurations. In the end only electrons and protons are preserved, which, as the only stable particles, can't fall apart anymore. These again are trying hard to take the state of an atom, which however needs very much space with the large distance between atomic nucleus and hull. Under the high pressure the enveloping electrons therefore will time and again fall into the nucleus to form neutrons together with the protons.

The neutrons need no atomic hull and can, as is well-known of neutron stars, take an extremely high density. In the case of the earth's core the neutrons however cannot be stabilized. The contraction to a neutron is accompanied by a corresponding drop in pressure, so that the neutron falls apart again. A continual oscillation of size is formed, with which the neutrinos again interact. With that also the high density of the earth's core would be explicable simultaneously.

In *earth's outer core* the various atoms and isotopes are formed, which in the sum release more energy than they absorb in their fusion processes. Here the *fusion oven* rages, which supplies the inner core with heat energy.

The formed matter is pushed further to the outside, rolls as a viscous mass through the earth's mantle and collects the surplus radiation and heat from the fusion oven.

With this model of explanation we now can tackle the calculation of the growth of the earth (fig. 11.6).

Growth in volume *in analogy to the compound interest calculation:*

duration: $n = 200$ million years

starting capital: $V_p = \text{Pangaea volume}$ $V_p = (4/3) \cdot \pi \cdot r^3$

final value: $V_h = \text{today's volume}$ $V_h = (4/3) \cdot \pi \cdot R^3$

savings bank formula: $V_h = V_p \cdot q^n$ (compound interest) (11.9)

with „interest rate“: $q = (V_h/V_p)^{1/n}$ (11.10)

radius of the core of the Pangaea sphere:

$$R_p = r - d_m - d_k = 541 \text{ [km]} \quad (11.11)$$

with

Pangaea radius: $r = 3435 \text{ [km]}$

earth's mantle: $d_m = 2800 \text{ [km]}$

earth's crust: $d_k = 94 \text{ [km]}$ (incl. covering with water).

core radius today: $R_h = R - d_m - d_k^* = 3500 \text{ [km]}$ (11.12)

earth's crust today: $d_k^* = 34 - 78 \text{ [km]}.$

From $V \sim r^3$ the growth factor q is calculated to be

$$q = \left(\frac{V_h}{V_p}\right)^{\frac{1}{n}} = \left(\frac{R_h}{R_p}\right)^{\frac{3}{n}} = \left(\frac{3500 \text{ km}}{541 \text{ km}}\right)^{\left(\frac{3}{2 \cdot 10^8}\right)} = 1 + 28 \cdot 10^{-9} \quad (11.13)$$

=====

core radius after n years: $R_n = R_p \cdot q^{n/3}$ (11.14)

radius of the earth after n years: $R^* = R_n + d_m + d_k^*$ (11.15)

Fig. 11.6: The calculation of the growth rate of the earth

11.6 Speed of growth

200 million years ago in the centre of the globe a core of fusion has formed and taken up its operation, probably under the influence of a cosmic occurrence connected with a high neutrino radiation. As a result the thin crust of the earth was torn apart and the oceanic basins were formed.

If we assume that the might of earth's mantle (with $d_m = 2800 \text{ km}$) and crust (with less than 100 km) haven't fundamentally changed, then earth's core at that time had a radius of only 541 km . The „savings bank formula“ now only may be applied for the core and only for its volume. On the condition of a constant neutrino density the volume of the core in every year will grow for one order of magnitude, which again depends on the respective volume itself. There results the in fig. 11.5 presented course of the radius of the core and of the earth.

According to our calculation the earth at present grows every year for $915 \cdot 10^{11}$ tons, which corresponds to an increase in volume of 16500 cubic kilometres and an increase of area of 5.2 square kilometres. The earth momentarily grows for 6.5 cm per year in diameter, from which follows that the perimeter increases π -fold and a continental drift of 10.2 cm per year is to be expected across both the Atlantic Ocean and the Pacific Ocean. Geologists today actually measure a plate movement of typically 10 cm , at individual points of up to 12 cm per year^{<i>}.

Whoever likes to do handicrafts, can build together a globe of shells by himself. Hilgenberg for that gives a handicraft instruction^{<ii>}. He draws the continents of a globe of today and cuts them out. Doing so, not the coast line of today is authoritative, but that of the edge of the shells, at which the mainland plates are breaking off into the deep sea. He hence also speaks of a sphere of shells and helps the handcrafters with the words: „Because the paper shells of the sphere of shells owing to their strong curvature are difficult to nestle, we cut slits in the paper, which suitably lie there, where mountain ranges stretch and now can start with the gluing“. Doing so it shows that the slits in particular in the case of the Ural and the Himalayan gape far apart, that in reversed direction in the case of the enlargement of the sphere of shells the **lifting out of the mountains** necessarily had to occur at these points by means of upsetting.

Under these circumstances our model concept should be further rendered more precisely. If the change of the curvature of the growing surface of the earth is the cause for the lifting out of the mountains, then the surface of the earth 200 million years ago was structured merely by impact craters and by volcanic cones, then the amount of water may have been correspondingly smaller. The additional water of the oceans of today was collected by the earth either from the cosmos, by crossing the flight path of a comet with a water tail, or by the here discussed idea of a core of fusion in the inside of the earth it has produced the water itself.

How ever such detail aspects may have had an effect, it therefore nevertheless changes nothing to the model concept on the whole. Hilgenberg's globe of shells^{<ii>} in my opinion to still makes more sense as all the models of explanation, as they are spread in today's text books.

<i>: Miller, R.: Driftende Kontinente, Time-Life, Amsterdam 1991, S. 78

<ii>: Hilgenberg, O.C.: Vom wachsenden Erdball, Berlin 1933, Eigenverlag

Actual data^{<i>}:

mass of the sun	$m_s = 1.99 \cdot 10^{30}$ [kg]	
radius of the sun	$r_s = 696\,000$ [km]	
distance to the earth	$r_e = 149\,597\,870$ [km] (averaged)	
mass of the earth	$M = 5.976 \cdot 10^{24}$ [kg]	
moment of inertia	$J_e = M \cdot r_e^2$ (of the earth orbit)	(11.16)
orbital velocity	$v_e = \omega_e \cdot r_e = 2\pi r_e / t_e$	(11.17)
averaged ^{<i>} :	$v_e = 29.79$ [km/s] = <u>constant</u>	(11.18)
revolutionary period	$t_e = 365.25637$ [days] $t_e = \text{sidereal year}$	
equatorial radius	$R = 6378$ [km]	
moment of inertia	$J = (2/5) M \cdot R^2$ (of the rotation of its own)	(11.19)
rotational velocity	$v_E = \omega_E \cdot R = 2\pi R / t_E = 0.465$ [km/s]	(11.20)
sidereal time of rotation	$t_E = 1$ [day] = $86\,164.1$ [s]	
distance to the moon	$r_m = 384\,390$ [km] (averaged)	
radius of the moon	$R_m = 1738$ [km]	
mass of the moon	$m_m = 7.350 \cdot 10^{22}$ [kg] = <u>constant</u>	(11.21)
moment of inertia	$J_m = m_m \cdot r_m^2$ (of the moon orbit)	(11.22)
orbital velocity	$v_m = \omega_m \cdot r_m = 2\pi r_m / t_m$	(11.23)
of the moon averaged:	$v_m = 1.026$ [km/s] = <u>constant</u>	(11.24)
revolutionary period	$t_m = 1$ sidereal month (from fixed star) $t_m = 27.322$ [days] to fixed star	
observed revolutionary period	$t_m^* = 1$ synodic month (from new moon) $t_m^* = 29.53$ [days] to new moon	

Fig. 11.7: The data of sun, earth and moon of today^{<i>}

^{<i>}: Mitton, S. (Herausg.): Cambridge Enzyklopädie der Astronomie
(The Cambridge Encyclopaedia of Astronomy), Orbis Verlag (1989)

It is an exciting matter, if one can experience for oneself, how the pieces of the puzzle fit together, how the southern end of America is wound around the Cape of Good Hope and the Falkland islands surface for the east coast of South Africa, in the vicinity of Australia how the Antarctic occupies the Pacific basin as a neighbour of Australia, von South, Middle and North America, run through by the equator, etc.

The corrections to the view of life of Alfred Wegener and the geographical evidence, which Hilgenberg gives, are sound, well founded and even after 65 years still highly actual. The physical statements of the geologists however, for instance the earth in the course of time would rotate faster and faster, cannot be followed.

11.7 Conservation of angular momentum

The question about the rotation of the earth is raised. Is it not changing at all, is it getting faster or slower? In the case of a with time growing earth there is only one possibility: The rotation of its own will decrease and not increase, as Hilgenberg supposes.

For that you only need to place yourself on a turntable, to turn and if possible with weights in your hands stretch out your arms sideways, to feel, how the rotation of the table is decreasing. It surely would have done the geologist Hilgenberg good, to leave his desk for a short time for a stroll to the most nearby playground, for the purpose of the described physical experiment with himself.

In this case the law of conservation of momentum authoritatively has an effect in the formulation of the law of conservation of angular momentum for the rotating motion. According to that all angular momenta in the solar system should amount to zero. If we look at the planets which have no moon, then is remarkable that these need an eternity for a revolution around their own axis (Venus for instance needs 243 days). According to the law of conservation of angular momentum our earth owes its rotation of its own primarily the moon.

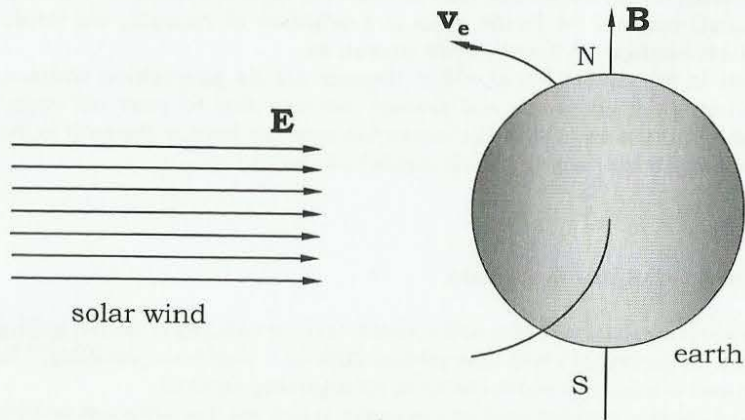
For reason of this relation we can assume a proportionality between the angular momentum of the moon $J_m \cdot \omega_m$ and that of the rotation of its own of the earth $J \cdot \omega_E$ (eq. 11.39, fig. 11.10). They even have to be identical, if the partner of rotation earth and moon are seen as a closed system.

If the earth would be approached as a homogeneous, spinning sphere, the angular momentum at first would be too small for a factor 4.1 (eq. 11.29, fig. 11.9). The law of conservation of angular momentum dictates as a necessary result, that the dense core of the earth must rotate faster than the earth's crust! From the correspondence of orbital angular momentum of the moon on the one hand and the sum of the angular momenta of their own of earth's mantle and earth's core on the other hand results a 31 fold higher angular velocity of the earth's core compared to the rotation of the earth's surface (eq. 11.38, fig. 11.9).

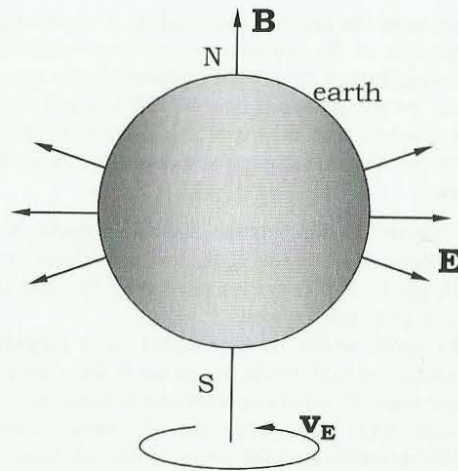
Does our earth owe its geomagnetism this rotation of the core? At least the possibility exists that there exists a causal relation between the rotation of the earth's core and the geomagnetism. We'll further collect arguments and put the question concerning the formation of the geomagnetism under consideration.

Concerning unipolar induction (Faraday):
(see part 1, eq. 58, fig. 6.4)

$$\mathbf{E} = \mathbf{v} \times \mathbf{B} \quad (11.25)$$



with $\mathbf{E} = 2 \text{ [V/m]}$ } earth magnetic field $\mathbf{B} = 67 \text{ } [\mu\text{T}]$ calculated
11.18: $\mathbf{v}_e = 29,79 \text{ [km/s]}$ } on the average approx. $\mathbf{B} = 50 \text{ } [\mu\text{T}]$ measured<i>



with $\mathbf{B} = 67 \text{ } [\mu\text{T}]$ }
eq. 11.20: $\mathbf{v}_E = 465 \text{ [m/s]}$ } 10 km high: $U = 199 \text{ [kV]}$ calculated
and $h = 6378+10 \text{ [km]}$ } $U = 200 \text{ [kV]}$ measured<i>

Fig. 11.8: The magnetic and the electrostatic field of the earth
as a result of an unipolar induction

<i>: Measurement values in chap. 2.8, e.g. reference entry <i> (Prof. Dr. L. König)

11.8 Set of difficulties concerning the change of magnetization

Now investigations of the polarity of the magnetization of rocks have resulted in the fact that in irregular intervals, on an average every 500,000 years, a change of polarity of the geomagnetism has occurred and no one knows why.

If the rotation of the core should produce the magnetism, then it in any case also is responsible for the process of change of magnetization. That purely theoretically is possible in two ways: Either the core tilts out of its plane of rotation for 180° and rotates suddenly in the opposite direction or earth's mantle together with earth's crust, on which we live, is turned upside down.

It surely isn't my intention to produce any panic, but from a physical point of view only the second case is possible. Usually not the tail wags with the dog, but vice versa, the dog with the tail. The high rotational velocity of the earth's core exerts an extremely stabilizing influence. After all its angular momentum is 4.85 times larger than that of the mantle (eq. 11.33, fig. 11.9). Therefore the rotation of the core and the direction of earth's magnetic field always are preserved seen from the sun.

I further proceed from the assumption, that an electrostatic field arises from the sun accompanied by a particle flux, the solar wind, through which the earth flies through in a perpendicular direction. According to the Faraday law of induction $\mathbf{E} = \mathbf{v} \times \mathbf{B}$ (eq. 11.25) it experiences, as a result of the unipolar induction, a magnetic field which stands perpendicular on the ecliptic and thus dictates the orientation of earth's magnetic field. With that also the direction of rotation would be determined. The core thus by no means can tilt.

On the condition that the core doesn't rotate completely frictionless, the earth's mantle will in the case of the same direction of rotation be accelerated, in the case of unequal direction, after a changing of polarity, it will be slowed down again. If the process, for reasons of conservation of angular momentum, takes place alternatingly with a certain regularity, then the inhabitants of the earth for every changing of polarity might experience, how the North Pole in the shortest time turns over the equator to the South Pole, how the sun sets at the point, where it before had risen. As said, after a changing of polarity our earth is standing on its head. In the Bible corresponding clues are found<ii>. It can be taken from the media that one reckons with such a changing of polarity in the foreseeable future. When and if it actually takes place, stands however in the stars.

If magnetism thus is produced by the rotation of the core, or by electric currents in the earth's core as a result of the superconduction or by both, then the earth is aligned in the field of the sun like the magnetic needle in a compass. If we take as a cause a solar wind with an electric field strength of just 2 V/m, then this would not only determine the direction of earth's magnetic field, but also the order of magnitude, and that at present lies at $50 \text{ } \mu\text{T}$ averaged over time (chap. 2.8).

With the same mathematical relation an electrostatic field around the earth of 199 V/m results as a result of the rotation of the earth. That fairly exact corresponds to the measured values.<i> Quite obviously all is related to each other. In the question for the „how“ at this point consciously no definite answer is strived for. It rather should be discussed and worked to together in the seminar.

<ii>: The Bible, OT, The 2nd book of kings 20,9-11 (king Hezekiah) and Joshua 10,12-14, literally cited on the page after the next page (chap. 11.9), note<ii>

Angular momentum $J_m \cdot \omega_m$ of the orbiting moon (with eq. 11.22 + 11.23):

$$J_m \cdot \omega_m = m_m \cdot r_m^2 \cdot \omega_m = 29 \cdot 10^{33} \text{ [kg m}^2/\text{s]} \quad (11.27)$$

Angular momentum $J \cdot \omega_E$ of the rotation of the earth (eq. 11.19 + 11.20, same direction of turning):

$$(\text{theoretically}) J \cdot \omega_E = (2/5) M \cdot R^2 \cdot \omega_E = 7 \cdot 10^{33} \text{ [kg m}^2/\text{s]} \quad (11.28)$$

$$\frac{\text{Orbital momentum moon}}{\text{Angular momentum earth}} = \frac{J_m \cdot \omega_m}{J \cdot \omega_E} = \frac{29}{7} = 4,1 \quad (11.29)$$

Angular momentum $J_M \cdot \omega_E$ of earth's mantle and crust (R_h = core radius)

$$J_M \cdot \omega_E = (J - J_K) \cdot \omega_E = (2/5) \cdot (MR^2 - M_K R_h^2) \cdot \omega_E = 6 \cdot 10^{33} \text{ [kg m}^2/\text{s]} \quad (11.30)$$

$$\text{conservation of angular momentum: } J_m \cdot \omega_m = J_K \cdot \omega_K - J_M \cdot \omega_E \quad (11.31)$$

Angular momentum $J_K \cdot \omega_K$ of the earth's core

$$J_K \cdot \omega_K = J_m \cdot \omega_m + J_M \cdot \omega_E = 35 \cdot 10^{33} \text{ [kg m}^2/\text{s]} \quad (11.32)$$

$$\frac{\text{Angular momentum core}}{\text{Angular momentum mantle}} = \frac{J_K \cdot \omega_K}{J_M \cdot \omega_E} = \frac{35}{6} = 5,8 \quad (11.33)$$

$$J_K \cdot \omega_K = (2/5) M_K \cdot R_h^2 \cdot \omega_K \quad (11.34)$$

$$\text{With the mass of earth's core } M_K = \rho_K \cdot V_K = \rho_K \cdot (4/3) \cdot \pi \cdot R_h^3 \quad (11.35)$$

and the averaged core density $\rho_K = 12000 \text{ kg/m}^3$

the angular velocity

$$\text{of earth's core amounts to: } \omega_K = 3,3 \cdot 10^{-3} \text{ [s}^{-1}] \quad (11.36)$$

$$\text{and that at the earth's surface: } \omega_E = v_E/R = 0,073 \cdot 10^{-3} \text{ [s}^{-1}]. \quad (11.37)$$

$$\frac{\omega_K}{\omega_E} = \frac{3,3}{0,073} = 45 \quad (11.38)$$

Fig. 11.9: Calculations concerning the conservation of angular momentum and the rotation of earth's core

(One turn of the earth's core lasts 32 min. It results contrary to the earth rotation. Of the surface of the earth a period duration of 31 min should be observable.)

11.9 The weakly damped moon

The increasing angular velocity in the direction of the centre of the earth surely has something to do with the set of difficulties concerning the conservation of the spherical structure, comparable to the reason for the particle spin (chapter 6.13). The increasingly missing radial component of the gravitational field has to be compensated by an additional field produced by the rotation (according to part 1, equation 62, fig. 6.5).

The moon apparently doesn't know this set of difficulties. We can assume a constant mass for it (eq. 11.21). On the one hand is the moon smaller than the earth 200 million years ago, as it started to grow. On the other hand are doubts concerning the existence of an active core of the moon legitimate. In the Apollo-15 mission seismic gauges had been installed at the ground of the moon and at the start from the moon the produced seismic waves had been recorded^{<i>}. The surprisingly small damping as the lunar module fell back onto the ground of the moon more likely allow the conclusion that the moon is hollow inside!

Also the small density of the moon points in the same direction, and finally no clues at all can be seen on the surface of the moon, which would point to a growth of the moon.

Apart from the mass also the orbital velocity of the moon is taken constant, what surely is true, as long as nobody and nothing drives the moon extra (eq. 11.24). The analysis of the law of conservation of angular momentum provides the in fig. 11.10 derived provisional result (eq. 11.41).

<i>: Moonquakes ever more mysteriously: „The by Apollo 12 triggered moonquake by „bombardment“ of the surface of the moon with the clapped-out Lunar Module „Intrepid“ at thursday evening puts scientists for bigger and bigger mysteries. An exact analysis of the measurement data now resulted in the by the astronauts Conrad and Bean installed „seismic station“ on the moon ... to have recorded and to have sent to the earth 55 minutes long. ... The seismologist Dr. Gary Latham spoke of „important information about the structure of the moon“ and meant, one now can „throw away the text book“. One had reckoned that the impact of the Lunar Module on the moon would trigger a quake of at best some minutes“. (translated)
Frankfurter Rundschau vom 22.11.1969

concerning reference entry <ii>, chap. 11.8:

<ii>: The Bible, OT, Joshua 10,12-14: There stands in the „book of Jasher “: So the sun stood still in the midst of heaven, and hastened not to go down about a whole day. And there was no day like that before it or after it, ...

The 2nd book of kings 20,9-11: king Hezekiah: This sign thou ... let the shadow return backward ten degrees. And Isaiah the prophet cried unto the LORD: and he brought the shadow ten degrees backward, by which it had gone down in the dial of Ahaz.

For the proportionality of the angular momenta of the earth:

$$J \cdot \omega_E \sim J_M \cdot \omega_E \sim J_K \cdot \omega_K$$

With: $J \cdot \omega_E = (2/5) M \cdot R^2 \cdot 2\pi/t_E$ (11.28)

and the orbital momentum of the moon:

$$J_m \cdot \omega_m = m_m \cdot r_m^2 \cdot v_m/r_m$$
 (11.27)

is valid the

conservation of angular momentum: $J \cdot \omega_E \sim J_m \cdot \omega_m$ (11.39)

or: $M \cdot R^2/t_E \sim m_m \cdot r_m \cdot v_m$ (11.40)

with $m_m = \text{constant}$ (11.21)

and $v_m = \text{constant}$ (11.24): $M \cdot R^2 \sim t_E \cdot r_m$ (11.41)

$$\begin{aligned} \text{centrifugal force} &= \text{gravitational force} \\ \frac{m_m \cdot v_m^2}{r_m} &= \frac{G \cdot M \cdot m_m}{r_m^2} \end{aligned}$$
 (11.42)

or with eq. 11.22: $v_m^2 = G \cdot M / r_m = (2\pi r_m / t_m)^2$ (11.43)

if $M = \text{constant}$: $r_m^3 \sim t_m^2$ (10.1)

Kepler's 3rd law.

Here $M \neq \text{constant}$, instead $v_m = \text{constant}$ (11.23) and therefore follows from eq. 11.43:

(month) $t_m \sim r_m \sim M$ (11.44)

with eq. 11.41:

(day) $t_E \sim R^2$ (11.45)

and for an analogous

derivation: (year) $t_e \sim r_e \sim m_s$ (11.46)

with $v_e = \text{constant}$

Fig. 11.10: Calculation of dynamic celestial mechanics

11.10 Calculation of celestial mechanics

We still need a further relation and try the balance of forces between the centrifugal force and the gravitational force. Both the to the outside directed centrifugal force and the to the inside directed gravitational force depend on the mass of the moving body, here the mass of the moon m_m , so that it is cancelled from equation 11.42.

As determining mass only that of the earth is left and that is taken constant in accordance with the knowledge of text books. The result of this assumption is Kepler's 3rd law (eq. 10.1). But beware, it here merely concerns a momentary picture! In the course of time, according to the derivation, the mass of the earth increases so that this assumption is untenable.

Instead, as already said, the average orbital velocity of the moon, one kilometre per second, can be taken constant (eq. 11.24). Since the orbital velocity is calculated from the proportion of the perimeter of the circular orbit $2 \cdot \pi \cdot r_m$ with regard to the revolutionary period of a month (11.43, left page), and at the same time from the balance of forces a dependency of the mass of the earth M and the radius of the orbit of the moon follows (11.43, right page), the interesting relation (11.44) results:

Here the mass M , the radius r_m and the revolutionary period t_m stand in a direct proportionality to each other, and that means: if the mass of the earth increases in the course of time, then the moon will go away from us to the same extent, then also every month will get correspondingly longer.

Clarified with numeric values follows from a growth of the earth for $915 \cdot 10^{14}$ kg per year a going away of the moon for yearly 5.88 meters (fig. 11.11). The going away of our satellite could be confirmed by means of measurements with laser reflectors, which had been put up on the moon by Apollo astronauts, according to dpa message^{<i>}.

In addition every month lengthens for 3 milli seconds. That is valid for the sidereal month (= 27.322 days), for which a fixed star serves as a reference point for the measurement of a revolution, as well as for the synodic month, as it is observed from the earth from new moon till new moon (= 29.53 days). The synodic month today is longer than four weeks. But 3.7 million years ago it once actually lasted exactly 28 days, as we can calculate easily (fig. 11.11).

But now also the length of a day is changing. If we insert the proportionality (11.44) from the balance of forces in that of the conservation of angular momentum (11.41), then it is shown that a day depends quadratic on the radius of the earth (11.45), that a lengthening of every day for $4.5 \cdot 10^{-9}$ s can be determined with the help of the growth curve of the earth (fig. 11.5). This is really very small, but 200 million years ago the day had just 19 hours, if extrapolated to 900 million years only 18.04 hours! The result of the american geologists around Dr. Charles Philip Sonett of the University of Arizona in Tucson also is 18 hours in their analysis of correspondingly old sediment formations, as the US science magazine Science has reported^{<i>}. The correspondence of this measurement with our calculation without doubt has force of evidence.

<i>: 900 million years ago a day had 18 hours, Washington (dpa) 1997

Going away of the moon per year with $M \sim r_m$ (according to eq. 11.44): for
 $\Delta r_m = r_m \cdot \Delta M / M = 384390[\text{km}] \cdot 9.15 \cdot 10^{16}[\text{kg/a}] / 5.976 \cdot 10^{24}[\text{kg}] = 5.886 [\text{m/a}]$

lengthening of month per year with $M \sim t_m$ (11.44) (sidereal): for
 $\Delta t_m = t_m \cdot \Delta M / M = 27.322 [\text{days}] \cdot 86164 [\text{s/day}] \cdot \Delta M / M = 36 [\text{ms/a}]$

synodic month (from new moon till new moon) of 28 days:

$$\Delta t_m = 29.53 [\text{days}] - 28 [\text{days}] = 1.53 [\text{days}] \equiv 132 \cdot 10^6 [\text{ms}]$$

$$\text{linearly calculated } 132 \cdot 10^6 [\text{ms}] / 36 [\text{ms/a}] = 3.6674 \text{ mio. years ago.}$$

Day length 200 mio. years ago, with $t_E \sim R^2$ (11.45) amounted to t^* hours
 shortening: $\Delta t_E / t_E = \Delta R^2 / R^2 = (R - R^*)^2 / R^2 = (6378 - 3420)^2 / 6378^2 = 21.5\%$
 $\Delta t_E = 0.215 \cdot 24 [\text{h}] = 5.16 [\text{h}]$ and $t^* = 24 [\text{h}] - \Delta t_E = 18.84 [\text{h}]$

Day length 900 mio. years ago, ($R^* = 3200 \text{ km}$) amounts to 18.04 hours

present lengthening per day amounts to: $\Delta t_E / t_E = 4.5 \cdot 10^{-9} [\text{s/day}]$

but: the year increases 130,000 times faster than the individual day!
 according to the measurement of Aristarchos 2300 years^{<iii>} ago

$$\text{is } \Delta t_e = 365.25637 [\text{days}] - 365.25062 [\text{days}] = 0.00575 [\text{days}]$$

$$\text{and } \Delta t_e / t_e = 0.00575 \cdot 24 \cdot 60 \cdot 60 \cdot 1000 / 365.25637 \cdot 2300 = 0.59 [\text{ms/day}]$$

going away of the earth from the sun per year, with $t_e \sim r_e$ (acc. to eq. 11.46)
 for: $\Delta r_e / t = r_e \cdot \Delta t_e / t_e \cdot t = 149.6 \cdot 10^6 [\text{km}] \cdot \Delta t_e / t_e \cdot t = 1.024 [\text{km/a}]$

growth of the sun per year/second, with $t_e \sim m_s$ (according to eq. 11.46)
 for:
 $\Delta m_s / t = m_s \cdot \Delta t_e / t_e \cdot t = 1.99 \cdot 10^{27} t \cdot \Delta t_e / t_e \cdot t = 1.36 \cdot 10^{19} [\text{t/year}]$
resp. in a second for: $= 4.3 \cdot 10^{11} [\text{t/s}]$
 and at the same time a loss due to radiation of: $5 \cdot 10^6 [\text{t/s}]$

Fig. 11.11: Figures according to analysis of some examples concerning dynamic celestial mechanics

11.11 The biblical age

We therefore owe the growing diameter of the earth that every day gets longer and longer (eq. 11.45) and from the going away of the moon a lengthening of the month results (eq. 11.44). Not only the months and the length of the days increase, but also the whole year. A corresponding derivation for the revolution of the earth around the sun, as it has been carried out for the revolution of the moon around the earth (eq. 11.44), delivers analogous results (eq. 11.46): The sun determines the length of the year and the distances to the planets. To the extent, to which the sun grows, the solar system increases in extension. Also the distance to the earth increases proportionally with the mass of the sun. By the going away from the sun the temperature on the planets however not necessarily decreases, because at the same time the radiation intensity of the growing central star increases. According to measurements it has increased for 30% since the formation of the solar system^{<i>}.

If both the rotation of the earth and the revolution around the sun get slower, then by all means is conceivable, that the number of days per year approximately stays the same and mankind nevertheless gets less old. If we take the 2300 years old writing of the Greek Aristarchos about the sizes and distances of the sun and the moon^{<ii>}. He determined, assuming a heliocentric view of life, the year to be 365.25062 days. Because the correction taken by Aristarchos concerned even the fifth place after the comma, we must assume that correspondingly precise gauges were available in Alexandria already 310 BC.

The today measured sidereal year with 365.25637 days has lengthened for whole 0.00575 days. From this follows that the year increases considerably faster than the individual day. It of course would be nice, if we could calculate the lengthening of the year, but unfortunately no data about the growth of the sun are available.

If we proceed from the measurement of Aristarchos, without being able to verify or reproduce its reliability, then from that would result a going away of the earth from the sun for yearly one kilometre, then the sun should grow for $4.3 \cdot 10^{11}$ tons per second. In any case the sun materializes mass considerably faster, as it loses mass in the same period as radiation equivalent, and that surely is correct (fig. 11.11). Today one generally assumes that „since its formation the earth has gone away from the sun for in total 30,000 km“^{<i>}.

But if in the past the year consisted of less days and every day moreover was shorter, if therefore the biological life time was divided in shorter periods, then mankind could get older, then obtaining a biblical age possibly by no means was unrealistic. If Adam still should have got 930 years old, according to the 1st book of Moses, then his lifetime already must have been quite long ago. While Abraham still did get 175 years old, no successor of him has reached his age anymore. In the Bible it is said: „*And the LORD said, My spirit shall not always strive with man, for that he also is flesh: yet his days shall be an hundred and twenty years*“^{<iii>}. Today even the limit given by the LORD isn't reached anymore.

<i>: Is the sun loosing her Gravitation? Illustrierte Wissenschaft, Nr.1, 1995

<ii>: Hermann Wild: Technologien von gestern, Chancen für morgen, Jupiter-Verlag Bern (1996), ISBN 3-906571-13-0, Seite 22

<iii>: The Bible, King James Version, Genesis 6.3

The balance of forces (equation 11.42 generalized):

$$\begin{aligned} \text{centrifugal force} &= \text{gravitational force} \\ \frac{M \cdot v_k^2}{r} &= \frac{G \cdot M \cdot m}{r^2} \end{aligned} \quad (12.1)$$

results in the cosmic velocity v_k :

$$v_k^2 = G \cdot m / r \quad (12.2)$$

independent of the mass M of the satellite or planet.

For	$v < v_k$	falling back into the central mass m
For	$v > v_k$	taking the leave into space
For	$v = v_k$	stationary orbit

written down for the n^{th} planet in the solar system:

with $r(n) = r_n$ average orbital radius of the planet

and $v(n) = v_n$ average orbital velocity

as well as: m_s mass of the sun

$$v_n = \sqrt{G \cdot m_s / r_n} \quad (12.3)$$

or:

$$v_n = G \cdot m_s / v_n \cdot r_n \quad (12.4)$$

Fig. 12.1: The first cosmic velocity v_k

12. New cosmology

Astronomy still hasn't satisfactorily solved the question of the formation of the solar system. It thereby however concerns a central problem, because it includes the origin of the earth. But as long as we not yet have understood the relations in our nearest environment, the processes, which we observe with giant telescopes in the depths of space, will remain a book with seven seals, will lose models of explanation concerning the Big Bang and concerning the so-called unavoidable heat exitus every reliability.

12.1 Concerning the formation of our solar system

2-8-1972 the observatories of the sun reported an unusual high solar activity and 6 days later a slowing down of the rotation of the earth occurred, which was recorded as the lengthening of a day for more than 10 milliseconds. This effect hardly can be explained by the tidal friction alone already just concerning the energy balance. Instead this observation makes clear two things to mankind. On the one hand, how much our earth depends on the solar processes and on the other hand, that the changes by all means can occur not continuously, but periodically and if need be even sporadic.

If, as a result of the conservation of angular momentum, the sun determines the orbital velocity of the earth, if it dictates the rotation of the earth by its neutrino activity and the growth of the earth and if the earth in the same manner determines the orbit of the moon, then it would be obvious that the moon originally has been a part of the earth and this in turn sometime a part of the sun. As it came off, the necessary angular momentum then has been passed on proportionately to the celestial companions, with which the cause for revolution and rotation of their own would be clarified. In addition the moon goes away from the earth and the earth again from the sun, so that looking back it by all means would be obvious, if they once had belonged together.

If we assume that cosmic dust particles meet and accumulate, then all collected rubble contributes to the rotation of its own of the forming celestial body. The more matter finds together, the larger its force of attraction gets, the faster it will grow like a celestial vacuum cleaner. In the course of time this process however is slowed down again and eventually comes to a standstill, because as matter condenses, volume and spherical radius decrease and the rotation of its own increases to the corresponding extent. The celestial body rotates faster and faster and reaches at its surface the cosmic velocity v_k , which is given by the mass m and the radius r of the star (eq. 12.2). Now the centrifugal force has reached an order of magnitude, for which the celestial body hurls exactly as much matter into space, as it on the other hand collects by its gravitational effect.

Our sun was lucky to have been supplied with neutrinos in the range of influence of our galaxy. It went in resonance and started to grow, this time from out of the inside. It however could not yet shine, because a crust had formed on its surface around its core of fusion and its mantle, a crust on which permanently was falling cosmic matter from the outside. The increasing viscosity of the sun becoming compressed caused a slowing down of the core of the sun and the corresponding acceleration of the mantle and crust.

Titius-Bode law of 1766:

$$a = 0,4 + 0,3 \cdot 2^v \quad (12.5)$$

in astronomical units a with:

$$r_n = a \cdot r_e \quad (12.6)$$

($r_e = 149\,598\,000$ [km] average orbital radius of the earth)

Planet	orbital radius acc. to the law:		measurement value.
Mercury:	$v = -\infty$	$a = 0,4$	0,39 (measured)
Venus:	$v = 0$	$a = 0,7$	0,72 (measured)
Earth:	$v = 1$	$a = 1$	1 (by definition)
Mars:	$v = 2$	$a = 1,6$	1,52 (measured)
Asteroids:	$v = 3$	$a = 2,8$	-
Jupiter:	$v = 4$	$a = 5,2$	5,2 (measured)
Saturn:	$v = 5$	$a = 10$	9,54 (measured)
Uranus:	$v = 6$	$a = 19,6$	19,2 (measured)
Neptune:	$v = 7$	$a = 38,8$	30,1 (measured)
Pluto:	$v = 8$	$a = 77,2$	39,4 (measured)
circumsolar			
cloud of planets:	$v = 9$	$a = 154$	-
etc. ... :	$v = 10$	$a = 308$	-

Table 12.2: The Titius-Bode series of the planets (the theoretical values compared to the measurement values)

Sometime our like mad spinning sun had increased that much, that the crust came off like the „tread of an old car tyre“ and was catapulted into space. The repulsion was achieved by the centrifugal force exceeding the gravitation for the force of cohesion, which at the moment of the separation of crust regions suddenly tears off. Like snowballs the planets rolled off the sun's surface in this process and were hurled away. Their velocity of rotation at this time was identical to the cosmic velocity of the sun v_k and with that for many a planet large enough to produce its own satellites out of its own surface, which perhaps was not yet completely ideally spherical.

With every planet, which the sun gave birth to, it gave away a part of its own angular momentum to its child as orbital momentum. Only from this time on the sun reduced its angular velocity steadily until this very day. By losing the crust it also started to shine openly. Thus at least could our solar system have been formed.

12.2 The birth of the planets

From this observation various consequences result. If stars are observed, which are rotating very fast, then they either are very young, or they have no planets. Stars, which compared to our sun are rotating less fast, have given away the angular momentum to their planets and such, which hardly are rotating, have their planets already sent away into space. But if the last planet leaves its solar system and the sun stops to rotate, then the sun, which meanwhile has grown to a red giant, without a , the spherical form stabilizing centrifugal force, will collapse. The supernova is the death of a star and thereby neutrinos are set free, the material for new life.

After the coming off of the planets these first clear free their flight paths, by together with the sun collecting the flying around matter. Even whole planets thus can collide, are slowed down and form bigger units. Finally only some few planets in very particular orbits are left. Their average distance to the sun obeys in an until now completely inexplicable manner the Titius-Bode series (equation 12.5, table 12.2).

In the case of the by the german scientist Titius 1766 formulated regularity it concerns a rule of thumb founded purely on experience. But it is remarkable, that the planet Uranus could be predicted (Bode 1772) and after systematic searching also be found (Herschel 1781) with it.

The most distant planets Neptune and Pluto however don't obey the law. Their distance should be very much larger. But this circumstance we already had given reasons for with the fact, that for them the resonating interaction already overlaps and exceeds the gravitation in its effect (chap. 10.1 note ⁴¹ and chap. 10.5).

The arbitrary seeming series of numbers 0, 3, 6, 12, 24, 48, 96, 192, 384, ... with a respective doubling of the value, starting with the 3, the addition of 4 and the following division by 10 at first are nothing but pure acrobatics of numbers, which now really has nothing to do with physics (table 12.2). A physical background can be supposed however because of the tried and tested applicability and that should be fathomed.

Orbital angular momenta $J \cdot \omega$ of the n^{th} planet
with: $J = m \cdot r_n^2$ and $\omega = v_n / r_n$:

$$J \cdot \omega = m \cdot r_n \cdot v_n \quad (12.7)$$

By using
amounts the orbital
angular momentum to: $J \cdot \omega$ = $m \cdot \sqrt{G \cdot m_s \cdot r_n}$ = $G \cdot m \cdot m_s / v_n$
dependent

equation 12.3:

equation 12.4:

(12.8)

change of the angular momentum (1st derivation) with the ordinal number n

$$\frac{d(J \cdot \omega)}{dn} = m \cdot \sqrt{G \cdot m_s} \frac{d(\sqrt{r_n})}{dn} = G \cdot m \cdot m_s \frac{d(v_n^{-1})}{dn} \quad (12.9)$$

$$\frac{d(J \cdot \omega)}{dn} = \frac{m \cdot \sqrt{G \cdot m_s}}{2 \cdot \sqrt{r_n}} \cdot \frac{dr_n}{dn} = - \frac{G \cdot m \cdot m_s}{v_n^2} \cdot \frac{dv_n}{dn} \quad (12.10)$$

with eq. 12.8:

$$\frac{d(J \cdot \omega)}{dn} = \frac{J \cdot \omega}{2 \cdot r_n} \cdot \frac{dr_n}{dn} = - \frac{J \cdot \omega}{v_n} \cdot \frac{dv_n}{dn} \quad (12.11)$$

By comparison of the left and the right solution (of eq. 12.11),
after introduction

of the constant:

$$\frac{1}{N} = \frac{1}{r_n} \cdot \frac{dr_n}{dn} = - \frac{2}{v_n} \cdot \frac{dv_n}{dn} \quad (12.12)$$

the differential
equations read:

$$\frac{r_n}{N} = \frac{dr_n}{dn} \quad \frac{v_n}{2 \cdot N} = - \frac{dv_n}{dn} \quad (12.13)$$

and the general solutions:

$$r(n) = r_n = r_o \cdot e^{\lambda \cdot n} \quad v(n) = v_n = v_o \cdot e^{\lambda \cdot n} \quad (12.14)$$

The 1st derivation:
and the comparison with
eq. 12.13 and eq. 12.14:

$$\frac{dr_n}{dn} = r_o \cdot \lambda \cdot e^{\lambda \cdot n} \quad \frac{dv_n}{dn} = v_o \cdot \lambda \cdot e^{\lambda \cdot n} \quad (12.15)$$

$$\frac{dr_n}{dn} = \frac{r_o}{N} e^{\lambda \cdot n} \quad \frac{dv_n}{dn} = \frac{-v_o}{2N} e^{\lambda \cdot n} \quad (12.16)$$

determine the
coefficient λ :

$$\lambda = 1/N \quad \lambda = -1/2N \quad (12.17)$$

The result is
for a planet
in the n^{th} orbit:

for the average orbital radius $r(n) = r_n$ $r(n) = r_o \cdot e^{n/N}$	for the average orbital velocity $v(n) = v_n$ $v(n) = v_o \cdot e^{-n/2N}$
---------------------------------------------------------------------------------	-------------------------------------------------------------------------------------

(12.18)

(12.19)

12.3 The derivation of the Titius-Bode law

Even if Bohr's atomic model should be wrong, it gladly is compared to the system of the planets. The radii of the electron orbits mathematically result as eigenvalue solutions of the Schrödinger equation, and that we have derived from the fundamental field equation (chap. 5.1, eq. 15) (chap. 5.5 - 5.9). The orbital radii are calculated in increasing order in accordance with the sequence of whole numbers with $n = 1, 2, 3, 4, \dots$

From the same sequential regularity of the planetary orbits can be derived, that they also obey the eigenvalues of the same fundamental field equation, which isn't called a world equation in vain. The quantitative distances from the sun are determined by the size of the sun: if the sun increases, then also all distances increase to the same extent.

Now result identical distances between the orbits from Bohr's model, whereas this distance in the case of the planets with increasing distance from the sun gets larger. The reason for this unevenly grading can be calculated just like that (fig. 12.3).

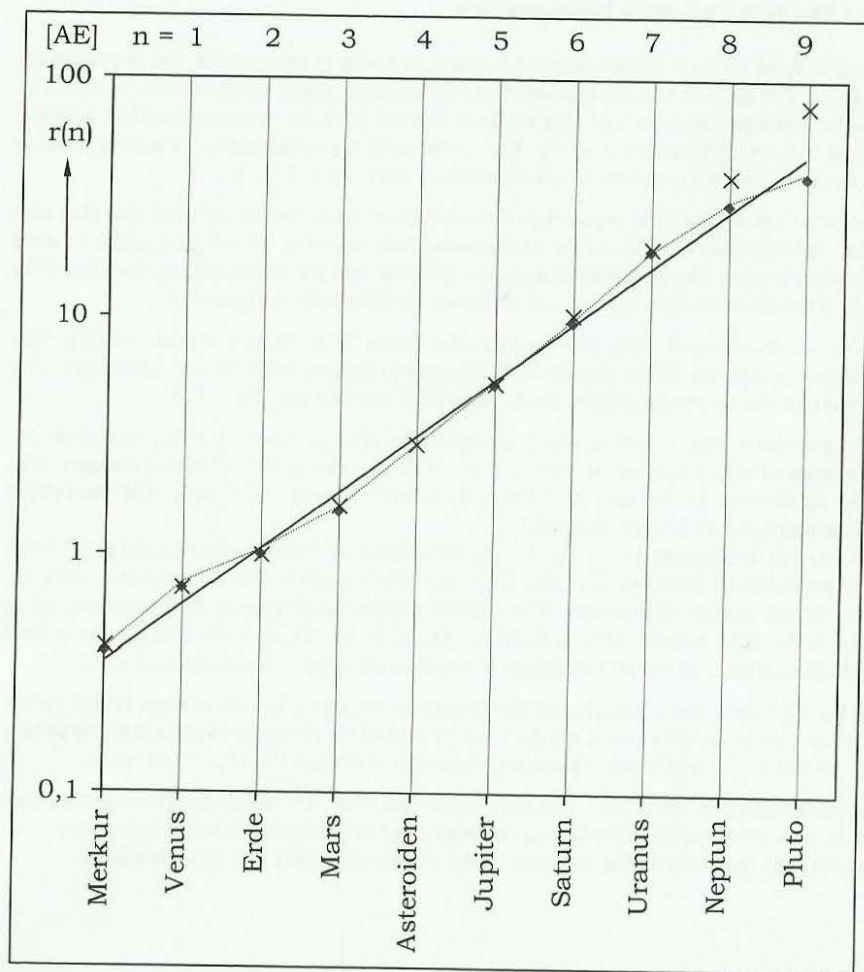
We arbitrarily pick a planet, which occupies the orbit n , where n again represents the sequence of whole numbers ($n = 0, 1, 2, 3, \dots$). If the orbit of this n^{th} planet changes, then also its distance to the sun $r_n = r(n)$, its orbital velocity $v_n = v(n)$ and the orbital momentum $J \cdot \omega$ (12.7) are changed.

We try (as in equation 11.42, fig. 11.10) the balance of forces between centrifugal force and gravitational force (eq. 12.1, fig. 12.1) and solve equation 12.2 for the orbital velocity. The orbital angular momentum of the planet written down once in its dependency on r_n and in the right column next to it on v_n (eq. 12.8, fig. 12.3), is derived for the orbital ordinal number n , to record the change in angular momentum (equations 12.9 to 12.11).

In fig. 12.3 the paths to the solution for both cases are given. For the average orbital radius $r(n)$ as well as for the average orbital velocity $v(n)$ of the planet an exponential course (eq. 12.18 and 12.19) and in logarithmic representation a straight line (fig. 12.4) results.

Even the orbits of the distant planets Neptune and Pluto, for which the Titius-Bode series fails, now are correctly recorded, so that with good cause can be claimed, to correctly have derived the regularity of the distances of the planets physically and mathematically.

Fig. 12.3: Calculation of the distances and orbital velocities
of the planets



× × without line (×): values according to Titius-Bode
 —◆— dotted line: measured distances
 — drawn line: calculated distances

Fig. 12.4: Representation of the distances of the planets

result of the calculation:

$$r(n) = 0,3332 \cdot e^{\left(\frac{n}{1,82}\right)} \quad [\text{AE}] \quad (12.20)$$

12.4 The hollow planet

The numerous accompanying moons of the big planets obey in the same manner as the planets this regularity, so that for the found result every coincidence is excluded. The orbits of the moons of Jupiter (fig. 12.5), of the moons of Saturn (fig. 12.6) and of the moons of Uranus (fig. 12.7) in logarithmic representation lie almost on a straight line.

Some orbits certainly are occupied several times, while many an orbit has remained unoccupied. Other orbits again are occupied by a ring of countless chunks of rock, so-called planetoids. Best known representative is the *asteroid belt* ($n = 4$) between the orbit of Mars ($n = 3$) and that of Jupiter ($n = 5$). The Titius law requested the planet „Aster“, but what one found (Piazzi, 1801), at first only was *Ceres*, the biggest representative of the small planets.

As a second asteroid, as they are called, was found (Olbers 1802) its discoverer proposed the explanation that both, *Ceres* and *Pallas*, could have formed in a cosmic catastrophe, which a bigger celestial body had suffered.

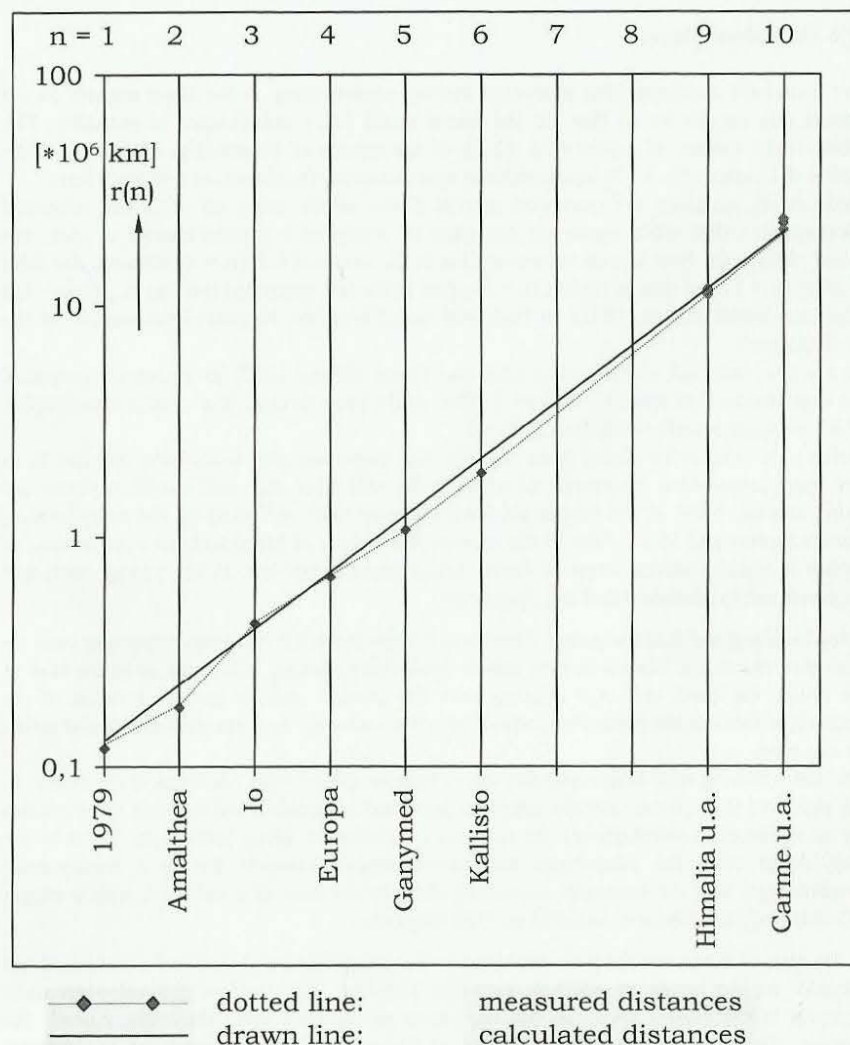
Perhaps the sought-for planet *Aster* actually had imploded after a collision and had been torn apart in countless fragments, of which today still more than half a million pieces are flying around. Most of the fragments however have been collected by the neighbouring planets Jupiter and Mars. Also in the case of the moons of Mars and the outer moons of Jupiter it could concern scrap of *Aster*. Some presumably fell on the young earth and triggered natural disasters and left deep scars.

It can be imagined that the planet *Aster* was hollow from the inside and thus was built up similar to the moon. Such a hollow sphere could have formed, if the sun, or in the case of the moon, the earth still was rotating with the cosmic velocity and as a result of the centrifugal force at the perimeter parts of the crust came off as connected sheets and rolled up to a tube.

The fast spinning tube then remodels into a hollow sphere with openings at the poles. In the inside of the sphere, near the equator, protected conditions and the best prerequisites for an undisturbed development, for instance of intelligent living beings, are found by the way. Apart from the advantages the hollow sphere however has as a fundamental disadvantage, that the normally protecting shell in the case of a collision with a bigger celestial body can become unstable and can implode.

In the case of the moon the pole openings in the meantime are closed and a presumed gas pressure in the inside in addition provides stability. The wall of the spherical shell however is not evenly thick, so that the moon all the time turns the same, namely the heavier, side towards the earth. In view of the seismic measurements of the Apollo-missions, which revealed an extremely small damping of the ground of the moon (chap. 11.9, note <i>), we should look after our moon well, because a comet, which lets the moon implode, would be able to bring about more damage on earth, than if it would hit the earth directly.

Should there exist a hollow and possibly even on the inside habitable planet in our solar system, then surely Saturn should be considered. Its density is smaller than that of water, so that water would be distributed over the inside area of the hollow sphere, if it would be existent. One should examine more detailed the extremely flat pole regions of Saturn for possible openings. Also Uranus and Neptune are possible candidates. This only is thought as an idea.



in position $n = 9$ stand: Leda, Himalia, Lysithea and Elara
 in position $n = 10$ stand: Ananke, Carme, Pasiphae and Sinope

Fig. 12.5: The distances of the moons of Jupiter

Result of the calculation:

$$r(n) = 67608 \cdot e^{\left(\frac{n}{1,743}\right)} \text{ [km]} \quad (12.21)$$

<i>: Note to chapter 12.5:

What we observe as and call cosmos, is nothing but a structured state of space.

12.5 Concerning the formation of the universe

The widespread concept of an expanding universe bases on the observation of a red shift of the spectral lines of galaxies, which increases with their distance. As the physical explanation for the discovery of Hubble, the Doppler shift for a light source, which is moving away from us, is used. But this concept of an against the attraction of the gravitation taking place expansion is nothing more than a work hypothesis.

The by Christian Doppler in acoustics investigated effect treats the observable shift in frequency, if the source of sound or the receiver is moved with regard to the medium of propagation. But according to today's version there doesn't exist such a medium at all for light, because Einstein has abolished the concept of the aether. According to that the Doppler effect neither can be applied to changes in light frequency. In the case of the expanding universe, for a decrease of the density and the tracing back to a Big Bang, it therefore should concern a misinterpretation.

Here another effect has to take effect, which one is not yet clarified. Perhaps the changing field relations of the observer environment play a role, after the earth moves away from the sun. But perhaps the galaxies only influence the propagation of their own light, or the light ray on its millions of years lasting way through space slightly loses energy, what is expressed by gradually increasing its wavelength and shifting its spectrum towards the red frequencies.

The hypothesis of the Big Bang moreover contradicts every causality. It is not able to give an answer concerning the origin and the future of the universe and on the question of the origin of the energy and the particles. With that its physical value of explanation goes towards zero.

If we again hold the theory of objectivity against the theory of relativity (part 1), we come to quite other answers. Here apart from the waves also vortices are found. Specially in the case of the spherical vortex a part of the wave power is enclosed in the inside, so that looked at from the outside a from zero differing energetic state results, which even is accessible measuring technically (chapter 6.2).

Wave and vortex are two possible forms of state, so that for the conversion of one state in the other state at first no energy is necessary. The change of state depends on the local field relations.

If we assume that in the beginning the cosmos was free of energy and particles. Then the first vortex was a possible product of chance with an infinite extension. This first spherical vortex, which was contracted under the potential vortex pressure, gave structure to space, gave it energy and field and took care for the rolling up and formation of new vortices^{<i>}. It can be assumed, that even today new particles continually are being formed in the fringe areas of the infinitely extended cosmos, which fly towards us and in doing so contract. They are attracted and at the same time shrunk by the fields of the celestial bodies. They form the source of all matter and energy for our observable universe, which permanently is changing its structure. Because the same oscillation with reversed sign is enclosed in the inside of the spherical vortex, the sum of the energy present in the cosmos is exactly equal to zero. With that the question concerning the causality is superfluous.

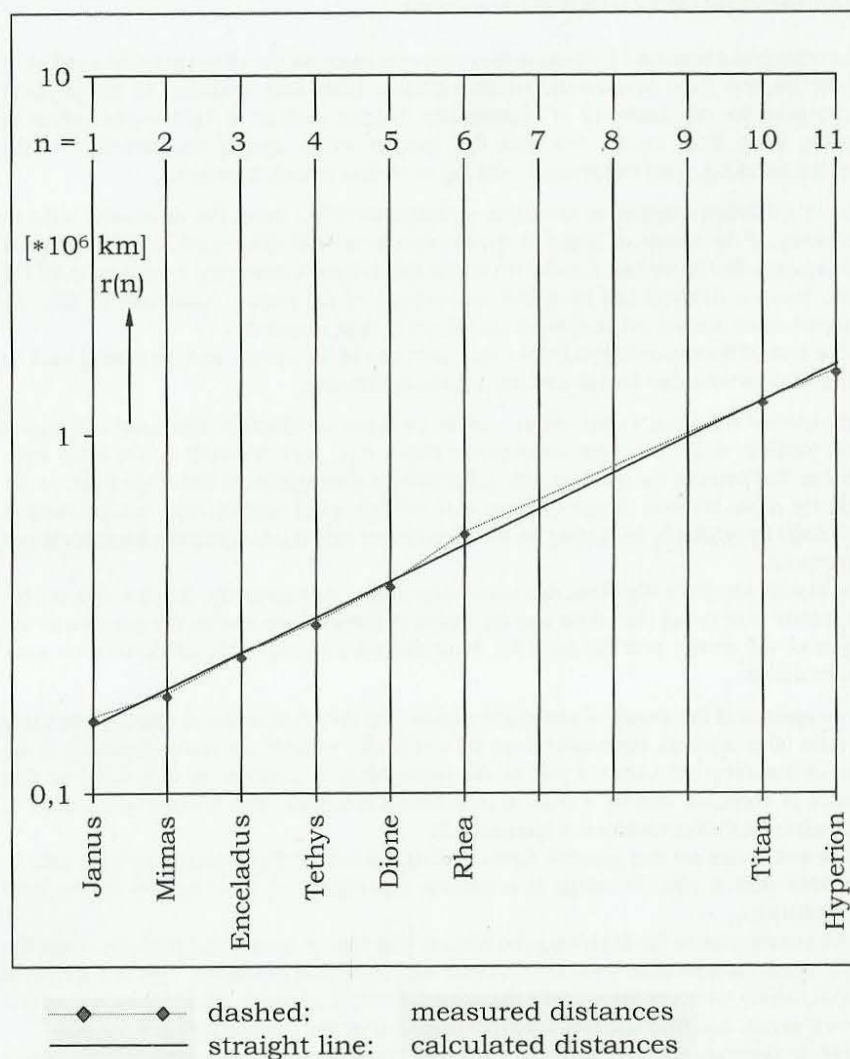


Fig. 12.6: The distances of the moons of Saturn

Note to chapter 12.6 (2nd law of thermodynamics^{<i>}):

Heat cannot completely be transformed into mechanic or electric energy.

<i>: see Electromagnetic environmental compatibility, Part 1, fig. 8.4

The formation of the universe also can be explained causal and completely without a hot Big Bang, even if a supernova surely represents something like a „local Big Bang“ for the concerned celestial bodies. According to the observations of the sky expansion and contraction, explosion and implosion occur everywhere in form of oscillations.

On the whole the expanding universe, which once was in thermodynamic equilibrium with matter, should cool down further and further. But stop, the 2nd law of thermodynamics teaches one just the opposite. If the entropy only increases, as the law dictates, then the whole universe should end in a heat death, just as mysteriously and inexplicable, as it should have been formed with the Big Bang. Perhaps something is wrong with the law (fig. 8.4)?

12.6 Counter examples concerning the 2nd law of thermodynamics

Most likely a small experiment convinces us. We heat two spheres, one somewhat less, the other somewhat more. Then we focus the heat radiation of the less hot sphere with help of a parabolic mirror and point it to the hotter one of both. That as a result becomes hotter, whereas the colder is cooled down. The heat thus has flown from the colder to the hotter sphere. Is it allowed to do that?

According to the 2nd law of thermodynamics it of course isn't. There the heat always can only flow from the hot to the cold sphere. But in this primitive experiment it measurable and verifiable flows in the wrong direction. Here the entropy, which is said to always only increase, actually decreases. Here entropy is being destroyed.

Shall we now let the carrying out of the experiment be forbidden under threat of penalty or shall we secretly put the law of entropy to sleep? It can't be denied that this law until now has quite well helped us along, at least for terrestrial processes, at least if one dispenses with the poor inventors, whose inventions offend against the since 100 years tried and tested 2nd law of thermodynamics. They haven't really arrived at the patent office at all, then they already are outside at the door again. Such inventors with their illegal behaviour even today must feel like criminals.

Just what that observed experiment can, each refrigerator and each warmth pump is using as well. And it is not an isolated case: also our sun clearly functions and operates illegally. The surface temperature amounts to only 5800 degrees Kelvin and supplies the atmosphere of the sun with energy. The energy thus flows from the sun to the corona, and that is with values above 1,000,000 degrees Kelvin for some powers of ten hotter.

Only the vortex concept resolves the many question marks without compulsion. In the case of the sun certainly vortices are at work. Here the high temperature in the corona arises as a result of vortices falling apart. We also speak of eddy losses. The transport takes place by heat radiation, exactly as in the experiment with the two spheres.

The possibility exists therefore in vortex processes as well as in technical circle processes that heat could flow from the colder to the hotter sphere. Whether this is an offence against the 2nd law of thermodynamics, is in the end a question of interpretation of the law and up to the opinions of the scholars.

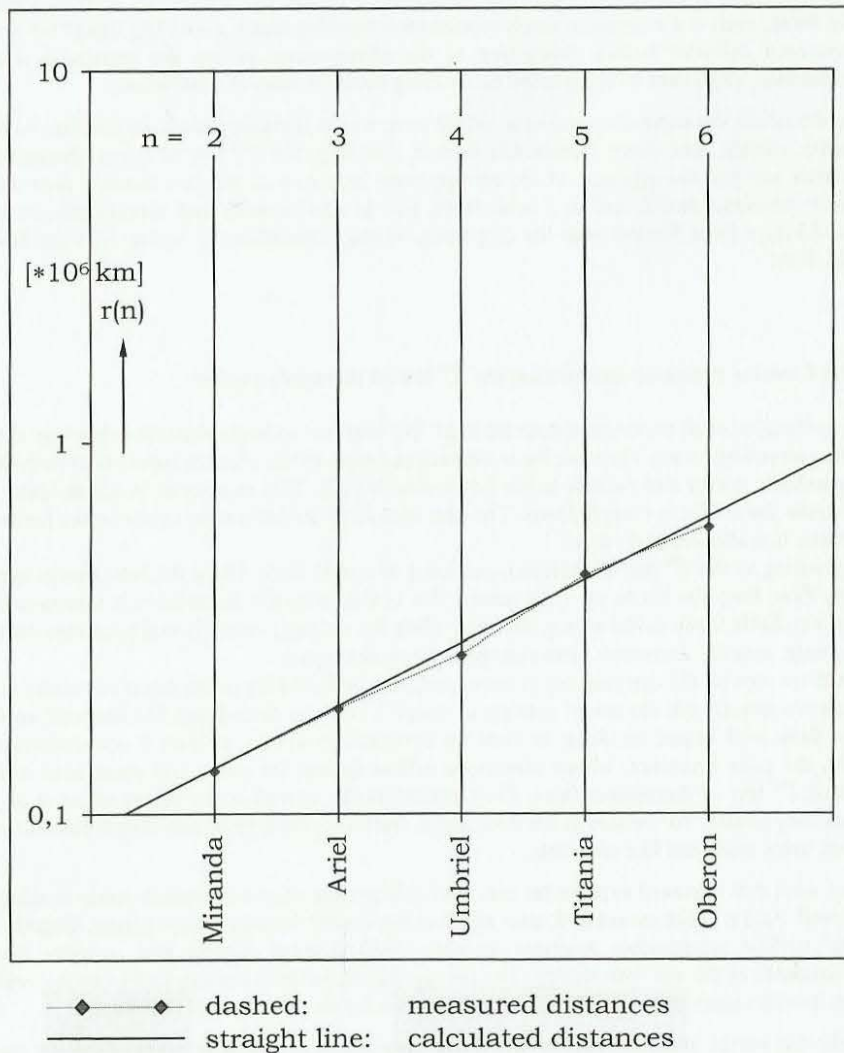


Fig. 12.7: The distances of the moons of Uranus

Note to chapter 12.7 (law of entropy):

The entropy of a closed system never can decrease. It is increased in the case of all irreversible processes. In the case of reversible processes it remains constant.

12.7 Entropy destroying potential vortices

Vortices in addition can amalgamate to balls and to planar vortex systems (4.9 and 4.10). In that case similar consequences, as they can be observed in flow-technical potential vortices in hydrodynamics, can be expected. As a result of the concentration effect (4.1) and because of the conservation of angular momentum an increase of the velocity of rotation of the vortex occurs. Like in the case of the pirouette in figure skating a *spontaneous acceleration of its own* is observed. In that way the kinetic energy of the system is increased, and that has to come from somewhere.

If we don't supply the contracting vortex with any additional energy for the increase of its rotation of its own, then as a source of energy only the heat energy is left. For this reason every contracting vortex generally converts heat in kinetic energy, it therefore cools down its environment. It moreover destroys entropy and offends against the 2nd law of thermodynamics (fig. 12.8).

It isn't an accident, if in the inside of a tornado it starts to hail. The *whirlwinds* really furnish visual instruction of the contraction and acceleration of their own of ring-like vortices. If then, even in tropical regions, *hail stones* are formed, the cooling effect has to come from somewhere, and it can be assumed that the vortex withdraws the heat energy from its environment (calculation in fig. 12.8).

If in specialist books is talked about matter or stars condensing, then vortex physics teaches us that they in reality *are contracting and by doing that cooling down*. That also is valid for whole galaxies. We owe solely the vortex laws that the continual heating by absorption of radiation is prevented and our sky in the night is dark and doesn't shine as light as day.

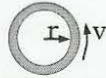
The *cosmic background radiation*, which as a result of vortices lies at almost 3° Kelvin, actually can only be given account for with a contracting of vortices of the Milky Way galaxy. If the cooling down in a compression resp. condensation process has arrived at absolute zero, the vortex becomes stationary, the contraction becomes dependent on the irradiated energy or it wholly comes to a standstill without supply of energy. An example for that is earth's inner core, which at zero Kelvin can't contract further.

From the point of view of causality it is suggested that we galactic and perhaps even cosmic to a large extent are in thermodynamic equilibrium, completely without Big Bang and heat death.

Numerous inventions, as mentioned, are based on the principle of converting environmental heat in useable energy by contraction of vortices. If however the inventors don't know the vortex laws and if they have developed their concept empirically and less physically, then it very often happens that erroneously gravity is made responsible, then is talked of gravitational converters, of the use of a **gravitational field energy**. But the inventors don't do themselves a favour with that.

<i>: In the seminar it is desired to think about this. Doing so the philosophical faculty may feel as well addressed, as the sandpit of physics, in which completely unsuspecting is played and juggled with Big Bang hypotheses by ignoring all physical regularities and every common sense.

Evidence to counter:
planar, contracting ring-like vortex



$$\text{conservation of angular momentum: } J \cdot \omega = m \cdot r \cdot v = \text{constant} \quad (12.7)$$

$$\text{conservation of energy: } E_{\text{kin}} = \frac{1}{2} m \cdot v^2 = \text{constant} \quad (12.22)$$

	before (r_1, v_1)	afterwards (r_2, v_2)	
contracted ($r_2 < r_1$):	$m \cdot r_1 \cdot v_1$	$= m \cdot r_2 \cdot v_2$	(12.7*)

with the consequences:	v_2/v_1	$= r_1/r_2$	(12.23)
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and:

kinetic energy:	$E_{\text{kin1}} = \frac{1}{2} \cdot m \cdot v_1^2$	$\neq E_{\text{kin2}} = \frac{1}{2} \cdot m \cdot v_2^2$	(12.24)
-----------------	-----------------------------------------------------	----------------------------------------------------------	---------

increase of the
kinetic energy:

$$\frac{Q_2}{Q_1} = \frac{E_{\text{kin2}}}{E_{\text{kin1}}} = \frac{v_2^2}{v_1^2} = \frac{r_1^2}{r_2^2} \quad (12.25)$$

notice: Because of the change in energy/heat no adiabatic change of state.

change of volume:
with $V = \pi \cdot r^2 \cdot h$

$$\frac{V_1}{V_2} = \frac{r_1^2}{r_2^2} \quad (12.26)$$

notice: Because of the change of volume no isochore change of state.

assumption: isobar change of state (with $p = \text{const.}$, Gay-Lussac):

result: (vortices of gas) involved with the:	$\frac{T_1}{T_2} = \frac{V_1}{V_2} = \frac{v_2^2}{v_1^2} = \frac{r_1^2}{r_2^2}$	(12.27)
----------------------------------------------------	---------------------------------------------------------------------------------	---------

* **acceleration** $v_2 > v_1$ is the contraction of vortices $r_2 < r_1$, $V_2 < V_1$

* the cooling: $T_2 < T_1$ and	$\Delta T = T_1 - T_2 = T_2 \cdot \left(\frac{r_1^2 - r_2^2}{r_2^2} \right)$	(12.27*)
---------------------------------------	-------------------------------------------------------------------------------	----------

* withdrawal of heat $Q_2 - Q_1 = \Delta Q$	$= Q_1 \cdot \frac{\Delta T}{T_2} = Q_1 \cdot \left(\frac{r_1^2 - r_2^2}{r_2^2} \right)$	(12.28)
----------------------------------------------------	-------------------------------------------------------------------------------------------	---------

* and entropy destruction:	$\Delta S = C_p \cdot m \cdot \ln \left(\frac{T_2}{T_1} \right) = C_p \cdot m \cdot \ln \left(\frac{r_2^2}{r_1^2} \right)^2$	(12.29)
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Fig. 12.8: The cooling and entropy destroying effect
of contracting potential vortices
(calculations concerning chapter 12.7)

13. Recording of space and time

If observations should force us to touch the sacred physical laws, then we should first of all judge our measuring technique critically of all sides and bring it in an usable state. I suggest we start completely from the beginning with the devices, with which the dimensions of space and time are recorded, with the tape measures for the measurement of length and the chronometers, our clocks.

We must find out, why comets are slowed down if they approach the sun like by the hand of a ghost and in going away again are accelerated, although no forces at all act on the celestial bodies from the outside.

We must find out, why in mines deep under the earth another value for the gravitational constant is being measured as on the surface of the earth^{<i>}. The results hardly can be imagined, if an universal constant should lose its constancy.

Thereby can Newtonian mechanics and the well-known laws be used very successfully from today's point of view, as the derivations in the last chapters have shown. We even could verifiably and mathematically correct calculate the growth of the earth and the solar system with them. The physical laws in the normally used formulation in spite of that seem to be bound to certain limits. Some observations contradict all experience^{<ii>}.

<i>: H. Schuh: Eine Konstante verliert ihre Konstanz; neue Experimente nähren Zweifel an Newtons Gravitationsgesetz, Die Zeit Nr. 40 vom 25.09.97. From it the following quotation (translated):

„It already is suspected for several years, that a fifth force could exist, this suspicion goes back to exact measurements of the gravitational constant G in Australian mines and shafts. Physicists of the University of Queensland in Brisbane had determined, that G for measurements underneath the earth is about one percent larger than the corresponding, since centuries in laboratories determined size. Their proposal for explanation, namely a fifth repelling force, at first met with sharp disapproval. But an at 21 august in the journal Science (Bd. 237/87, P. 881) published work, which bases on measurements in a drilling hole in Michigan, confirms the Australian data“.

<ii>: Already the nobel prize winner of physics, Lenard, pointed to the circumstance, that the relativistic representation of the astronomical aberration is incorrect, after no distinguishable aberration could be observed at binary stars, as it had been expected. With that Lenard by the way also has confirmed the existence of an aether.

P. Lenard, Annalen der Physik, Bd. 73, S. 89 (1924)

S-V: indication of month
(rotating).

A: inlet

G: swimmer

E: outlet

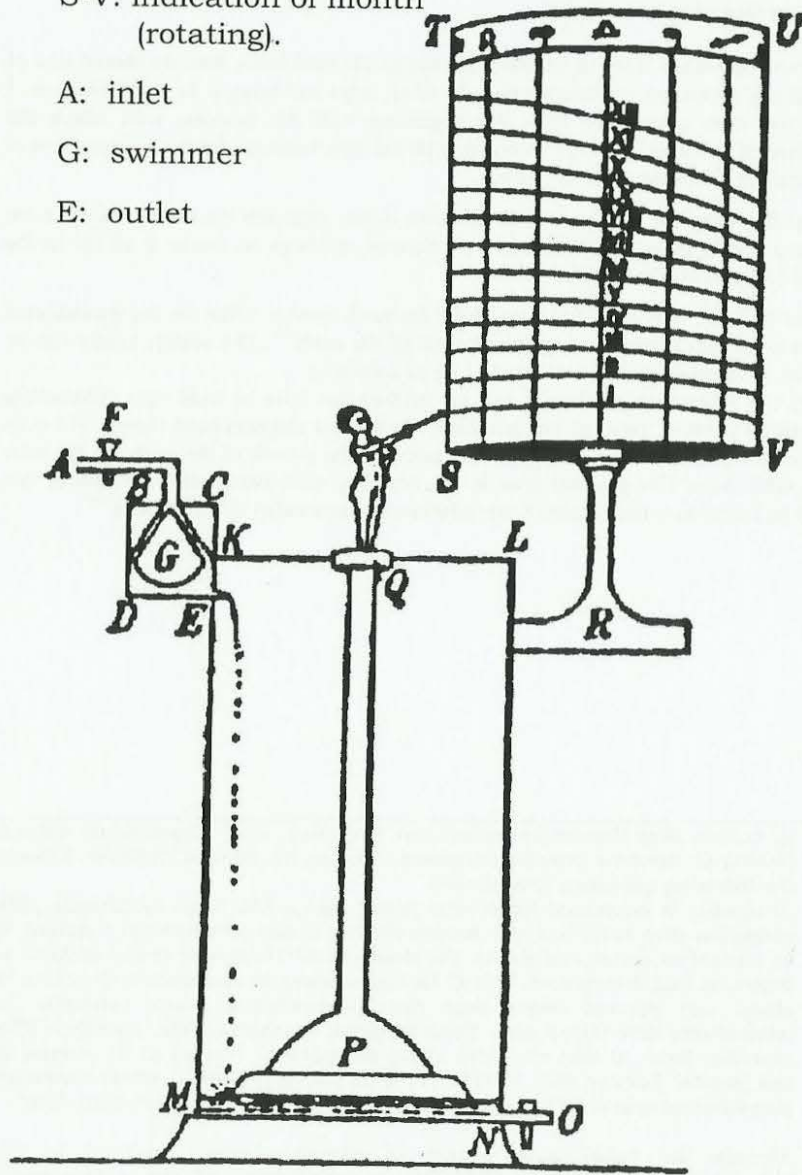


Fig. 13.1: The water meter of the Ktesibios (approx. 250 BC)
(with regulation of the water-level)

13.1 The measuring technical debacle

We are standing for a measuring technical debacle, because we have fixed our calendar to the rotation of its own of the earth. We call a 360° turn a day, divide it in 24 hours of 60 minutes each and every minute in 60 seconds. With that we determine the duration of a second.

A clock according to this definition only then is exact, if it follows the changes of the earth to the same extent. Obviously this in particular is the case for atomic clocks. An objectively seen precise going clock however would land at the waste disposal site as completely unusable.

After all nobody wants to know, how late it really is. Everyone only wants to find confirmed his subjective feeling, and our experience of time simply is directed after the course of the sun, thus after the rotation of the earth.

For the moment and as an approximation also for the life time of a person, this determination of time may be sufficiently exact, but seen over larger periods of time, one doesn't get around a conversion. Actually the 200 million years since the beginning of the Creation on the mentioned primeval hill are considerably less long ago. *The earth and the whole solar system are very much younger, than was assumed until now.*

If we as an example again take the cited research group of the University of Arizona (chap. 11.10^{<i>i>}), which by means of an analysis of sediment formations have found out, in accordance with our calculation, that 900 million years ago a day only had 18 hours^{<i>ii>}. Such traces in geological deposit layers can be very informative, if they are analysed correctly, since here the measurement technician himself is not subject to the process. He stands outside and hence can exactly measure the time difference.

If a geologist of that time had looked at his watch during the formation of the layers, then a day obviously would have had 24 hours, and he wouldn't have been able to understand the whole excitement at all. The accusation, he would suffer from chronic blindness caused by his job, he of course would repel resolutely. *Can you now imagine, from which disease our science of today suffers?*

Our chronometers are nothing but the improved model of a sundial^{<i>iii>}.

We live in the *dimensions of space and time*, but we quite obviously have the biggest possible difficulties with the dimensioning of both. Possibly we already aren't capable of that at all by principle. Most suitably we clarify the situation by means of examples concerning the two problem spheres.

Let us at first stay at the dimension of time. It may have become clear, how problematic the chosen determination of the time scale in seconds is and which contradictions can result if larger periods of time are considered. More and more often science fiction authors romp about on the playground of time, fantasize about some time travel, or they occasionally make jokes about it^{<i>iii>}.

<i>i>: 900 million years ago a day had 18 hours, Washington (dpa) 1997.

<i>ii>: There also exist models, of which is asserted, they go according to the moon.

<i>iii>: A passenger, who got on the 10 o'clock bus, passes by the church steeple clock, which only reads 5 to 10 and curses: Damn, I took the bus in the wrong direction.

Centrifugal force
$$F_{1,2} = (m/R) \cdot (v_E \pm v_f)^2 = m \cdot R \cdot (\omega_E \pm \omega_f)^2 \quad (13.1)$$

with: $R = 6378 \text{ [km]}$ (radius of the earth),
 $v_E = \omega_E \cdot R = 0,465 \text{ [km/s]}$ (rotational speed of the earth), (11.20)

$v_f = \omega_f \cdot R = \pi \cdot R / t_o$ (speed of the plane) (13.2)

and: t_o [s] (duration of journey)

energy of the moving steering quanta:

$$E_{1,2} = \int_0^R F_{1,2} dR = m \int_0^R R \cdot (\omega_E \pm \omega_f)^2 dR = \quad (13.3)$$

$$E_{1,2} = \frac{1}{2} \cdot m \cdot R^2 \cdot (\omega_E \pm \omega_f)^2 = \frac{1}{2} \cdot m \cdot (v_E \pm v_f)^2 \quad (13.4)$$

energy balance (generally of a quantum of radiation):

$$E_{1,2} + E_q = E_{ges} \quad \text{resp.} \quad E_{ges} - E_q = E_{1,2} = \Delta E \quad (13.5)$$

in general: $E = h \cdot f = m \cdot c^2 \quad \text{resp.} \quad m = h \cdot f / c^2 \quad (13.6)$

and (Gl. 13.4 mit 13.6):

specifically: $\Delta E = h \cdot \Delta f = E_{1,2} = h \cdot f \cdot (v_E \pm v_f)^2 / (2c^2) \quad (13.7)$

$$\Delta f / f = \Delta t_{1,2} / t_o \quad \text{resp.} \quad \Delta t_{1,2} = t_o \cdot \Delta f / f \quad (13.8)$$

(eq. 13.7 inserted into eq. 13.8)

resulting in: $\Delta t_{1,2} = t_o \cdot (v_E \pm v_f)^2 / (2 \cdot c^2) \quad (13.9)$

time of travel around half the earth: $t_o = \pi \cdot R / v_f \quad (13.2)$

results in a difference in going of: $\Delta t = \Delta t_1 - \Delta t_2 \quad (13.10)$

$$\Delta t = [(v_E + v_f)^2 - (v_E - v_f)^2] \cdot \pi \cdot R / (v_f \cdot 2 \cdot c^2) \quad (13.11)$$

result

calculated: $\Delta t = 2 \cdot v_E \cdot \pi \cdot R / c^2 = 207 \text{ [ns]} \quad (13.12)$

measured by Hafele and Keating^{<i>}: $214 \text{ [ns]} \quad (13.13)$

Fig. 13.2: The difference in going of two atomic clocks
(caesium resonant clocks)

<i>: Hafele-Keating-Experiment, Oktober 1971; s. a. W. Bauer: Klassische Physik, Graphia Druck, Salzburg (1975), Eigenverlag

13.2 The clock paradox

The theme „time dilatation“ in connexion with the particle decay already has been treated (part 1, chapter 6.20). It has been shown, that a fast moving and with that length contracted particle to exactly the same extent (Lorentz's square root) becomes more stable and longer-living. If relativists pack an atomic clock based on radioactive decay in a plane and detect a difference in going between the one, which has been flown around and a second identically constructed clock, which has stayed at the ground, then they have with that detected experimentally a very small length contraction, which really occurred, and by no means a time dilatation, as they claim.

Now we in addition owe Einstein, that the aether has been abolished and from that follows, that it can't play a role in which direction the plane flies. If therefore both clocks are taken along each in a separate plane, one plane flying to the west and the other to the east, both planes meeting again for the first time on the other side of the globe, then according to Einstein's theory it shouldn't be possible to determine a difference in going, if both planes constructed identically were on the way with the same velocity. But this is not the case.

Actually a difference in going is measured, which however can't be calculated with the theory of relativity, yes, which is completely incompatible with this theory and clearly brings anyone to the eye, that the effect actually can't have to do anything with a time dilatation, that the moving clocks merely go wrong and we have to ask us, why^{<i>}.

These experiments were carried out with atomic clocks, which are constructed as caesium resonators and work with an exactness of one second in 300000 years. As a resonator serves a quartz crystal, which is controlled by an ion current of caesium atoms, which have lost their outermost enveloping electron. The system is fed back, because the oscillating quartz controlled by the caesium ions again adjusts the caesium vapour by radio wave and finally its own atomic controlling current (fig. 13.7).

The reason for the measured difference in going is seen in the field and here specially in the different gravitational field. The centrifugal force directed opposite to the gravitational force at least is not the same, because for a westward flight along the equator the speed of the plane v_f should be subtracted from the velocity of rotation of the earth v_E , whereas in eastward direction it should be added (eq. 13.1).

For the steering quanta supplied by the caesium resonator now the energy balance is put up (13.5 with 13.4) and the change of the reference frequency is calculated (13.7). With the change in frequency is connected directly a change of the at the two clocks readable times $t_{1,2}$ (13.8). For a journey around half the earth, where one clock is flown westwards and the other one eastwards, the difference in going should, according to the calculation, amount to 207 ns. Interesting of the result (13.11) undoubtedly is, that the velocity of the planes doesn't play a role. It is cancelled out.

October 1971 caesium atomic clocks were sent around the world in scheduled planes in the Hafele-Keating experiment. To be able to estimate the inaccuracy in going of the clocks and with that the measurement error, four clocks were used. Between the westward journey ($273 \pm 7 \text{ ns}$) and the eastward journey ($59 \pm 10 \text{ ns}$) a difference in time of 214 nanoseconds was determined. This under strict scientific conditions determined result once more proves the correctness of the theory of objectivity by confirmation of the calculated value. That however is not valid for the special theory of relativity, because that doesn't appear in the calculation at all!

Who now believes, we would have less problems with the dimension of space, I must disappoint. The determination of the linear measures equally ends in a fiasco.

radius
of the earth: $R = 6378 \text{ km}$

shaft depth: $a = 1,3 \text{ km}$

measured change in
length: $x^* = 20,9 \text{ cm}$
(lengthening)

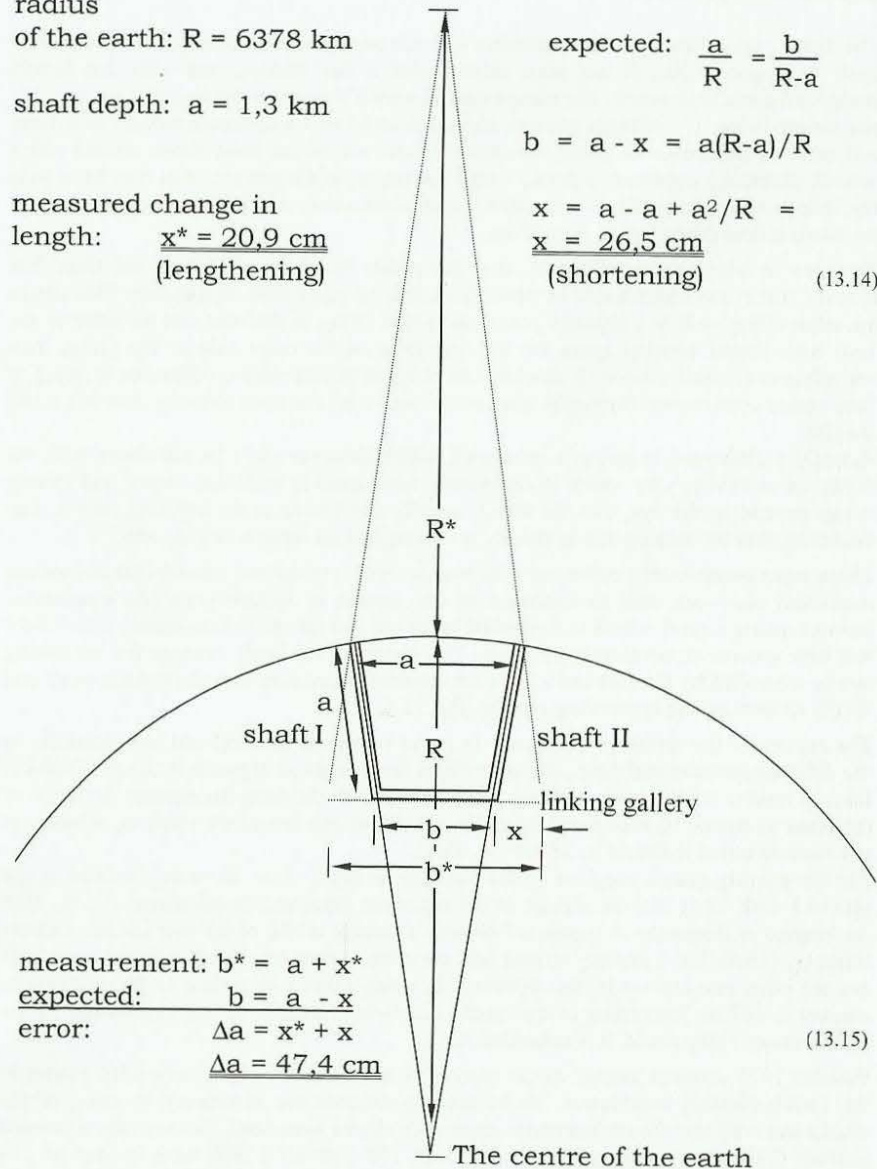
$$\text{expected: } \frac{a}{R} = \frac{b}{R-a}$$

$$b = a - x = a(R-a)/R$$

$$x = a - a + a^2/R =$$

$$x = 26,5 \text{ cm}$$

(shortening) (13.14)



measurement: $b^* = a + x^*$

expected: $b = a - x$

error: $\Delta a = x^* + x$

$\Delta a = 47,4 \text{ cm}$

(13.15)

13.3 The Tamarack mines experiment

As long as the „foot measure“ depended on the shoe size and the „cubit“ on the forearm of the tailor, the world still was OK. The sciences however request a reproducible quantity for comparison, and that can be fetched at the *Bureau International des Poids et Mesures* in Sèvres near Paris. The **original meter** is a Platinum alloy. Because the length of the metal always depends on temperature, it is stored at a constant kept temperature of 0° Celsius. Now there in addition still exists a field dependency, an electrostriction resp. magnetostriction. And how is the measurement bar behaving, if the earth grows and the density increases? Is it then shrinking just like other objects in its environment? At this point already chaos is proliferating.

The newest definition of the length measure meter acts as a blow for liberty and thus marks the abyss, at which we are standing: The length is determined by means of a measurement of transmission time of an electromagnetic wave, e.g. of a light signal. It is said that with this determination a higher reproducibility should be obtained.

Actually a photo optical facility to measure length is as exact as the built-in facility to measure time, and there we use it again, our sundial. In addition a constancy of the speed of light is taken as a prerequisite, and that is given in meters per second. From a change of the speed of light for forinstance 10% a change in length for 10% as well would result^{<i>}. Because we see this process with the help of our eyes as well with the speed of light, we never can see the change. We neither can technically measure it, because all gauges we construct are built up corresponding to our sensory impression. We ourselves have shovelled the hole, in which we fall.

Only if we succeed in taking a neutral standpoint outside of the events, the true relations will become visible to us. For the field dependency of the space measures a very clear experiment has been carried out, of which I now want to report^{<ii>}.

1901 the French government was offered the possibility to carry out an experiment in the shut down Tamarack mines near Calumet (Michigan) with the goal to determine the diameter of the earth more exact. For that the geophysicists let down two plumb-lines of 27.2 kg each in two perpendicular winding shafts, which were at a distance of 1.3 km from each other. The plumb-lines were tied to hardly expandable piano wires of as well 1.3 km length. It now was expected, since the plumb-lines hung in direction of the centre of the earth, that in a linking gallery between the two shafts a length of $(1.3 - x) \text{ km}$ should be measurable. From the shortening x one wanted to infer the diameter of the earth (fig. 13.3). But it came completely different.

Instead of a shortening a lengthening for $x^* = 20.9 \text{ cm}$ was measured in the gallery. The point of intersection of the lines through the two shafts had to be not in the inside of the earth, but in space. Immediately „hollow earthers“ appear, who claim we would live on the inside of a hollow world^{<iii>}. Perhaps one should shoot them to the moon, because from there the earth without doubt is seen as a sphere. Obviously we aren't dealing with a surprise of a fair, but with a fundamental measuring technical problem.

Fig. 13.3: Expectation and measurement in the Tamarack mines

(The curvature of the earth and the length of the shaft a are drawn strongly exaggerated for clarification)

<i>: for that see also part I, chapter 6.11 and 6.12

<ii>: <http://www.t0.or.at/subrise/hollow.htm>

$$\text{Volume of the globe: } V = (4/3) \cdot \pi \cdot R^3 \quad (13.16)$$

$$\text{and of the inner sphere} \\ \text{in depth } a: \quad V_a = (4/3) \cdot \pi \cdot (R-a)^3 \quad (13.17)$$

$$\text{resulting in the} \\ \text{relative change: } \boxed{\frac{\Delta V}{V} = \frac{V - V_a}{V} = 1 - \left(\frac{R-a}{R}\right)^3 = 1 - \left(1 - \frac{a}{R}\right)^3} \quad (13.18)$$

$$\text{from } m = V \cdot \rho \text{ for a constant density } \rho \quad (13.19)$$

$$\text{and}^{<\text{iii}>}: \quad m = \phi / \sqrt{G \cdot 4 \cdot \pi \cdot \mu} = A \cdot \mu \cdot H / \sqrt{G \cdot 4 \cdot \pi \cdot \mu} \quad (13.20)$$

$$\text{follows: } \boxed{m \sim V \sim H} \quad (13.21)$$

$$\text{resp. the} \\ \text{relative change: } \boxed{\frac{\Delta H}{H} = \frac{\Delta m}{m} = \frac{\Delta V}{V} = 1 - \left(1 - \frac{a}{R}\right)^3 = 0.061\%} \quad (13.22)$$

According to the theory of objectivity the length of the measurement wire is field dependent^{<ii>} with:

$$\boxed{H \sim 1/a^2} \quad \text{and} \quad \boxed{H_a \sim 1/(a-\Delta a)^2} \quad (13.23)$$

$$\text{and the} \\ \text{relative change: } \boxed{\frac{\Delta H}{H} = \frac{H_a - H}{H} = \left(\frac{a}{a - \Delta a}\right)^2 - 1} \quad (13.24)$$

Shortening of the rule Δa is calculated from the comparison of equations 13.22 and 13.24:

$$\boxed{\frac{\Delta H}{H} = 1 - \left(1 - \frac{a}{R}\right)^3 = \left(\frac{a}{a - \Delta a}\right)^2 - 1} \quad (13.25)$$

$$\Delta a = a \cdot (1 - 1/\sqrt{2 \cdot (1 - a/R)^3}) \quad (13.26)$$

$$\underline{\Delta a} = 40 \text{ [cm]} \quad (\text{result of the calculation})$$

$$\underline{\Delta a} = 47 \text{ [cm]} \quad (\text{measurement value} \\ \text{for comparison, 13.15})$$

Fig. 13.4: Calculational verification of the measured shortening

13.4 Field dependent linear measure

If a measurement result delivers just the opposite, as was expected by the experimentators, then the layman is amazed and the expert is surprised, at least at first. But then, out of a feeling of panic, the whole view of life could collapse, as many as possible scientists and renowned professors are being informed and integrated, if they want it (Prof. Mc.Nair) or not (Prof. Hallock, Columbia University) and eventually the matter is buried third class and a guise of silence is spread over it. *The censorship of the scientific making of opinion in advance doesn't permit publications, which are not in accord with our view of life, out of the animal survival instinct*^{<i>}.

A science, which deserves this name, should look different. There it must be permitted, to ask questions and to publicly discuss about it.

I proceed from the assumption, that the earth is a sphere, which we inhabit from the outside; I have no doubts about that. With this as a prerequisite there is only one possible answer to the Tamarack mines experiment: The 1.3 kilometres long measurement wire, which in the gallery in a depth of 1.3 km had to jut out for 26.5 cm, instead is too short for 20.9 cm, from which immediately follows that it, howsoever, is shrunk for 47.4 cm in the depth.

At first of course the experiment was checked for possible measurement errors. The shafts were covered to exclude any draught. The measurement path was optically checked, but the result remained unchanged. But if the cause for the unexpected result doesn't lie in the experiment, then theoretical physics is addressed, after all it is still the experiment which shows us the physical reality and not some theoretical model concept.

In the 1st part of the book already the derivation of a useful explanation is found: The speed of light and with that also the linear measure depends on the field^{<ii>}. The measurement wire accordingly gets shorter, if it is exposed to a larger field strength (eq. 13.23). We can verify the measured shortening calculative (fig. 13.4).

For that we at first determine the change of the field strength, as it is to be expected in a depth of 1.3 km. We here are dealing with the closed H field lines, which are responsible for the gravitation. In a past derivation it has been shown, that a gravitating mass can be converted into a magnetic field^{<iii>}. Between a mass m and a field strength H hence exists a proportionality (13.21), in the same way as between the same mass and its volume, if a constant density is present (13.19).

The result accordingly is a relative decrease of the volume of the earth and the corresponding mass being under the measurement place, as well as a relative decrease of the radial component of the field strength, but a corresponding relative increase of the tangential component of the field for 0.061% (13.22 with 13.18).

In the gallery the measurement wire however is spread out in the direction of the tangential component of the field lines, and that shortens the measurement wire as a result of the field dependency of the linear measures^{<ii>} (13.23). From the above increase in field the calculational shortening of the rule for 40 cm results, which compared to the measurement result also should be rated as a confirmation of the theory of objectivity which was taken as a basis^{<i>}.

<i>: Example: K. Meyl: Potentialwirbel, Bd. 1, reference entry /5/

<ii>: for that see also part 1, chapter 6.6, equation 65 and chapter 6.10

<iii>: K. Meyl, Potentialwirbel Band 2 (1992), page 27, equation 20

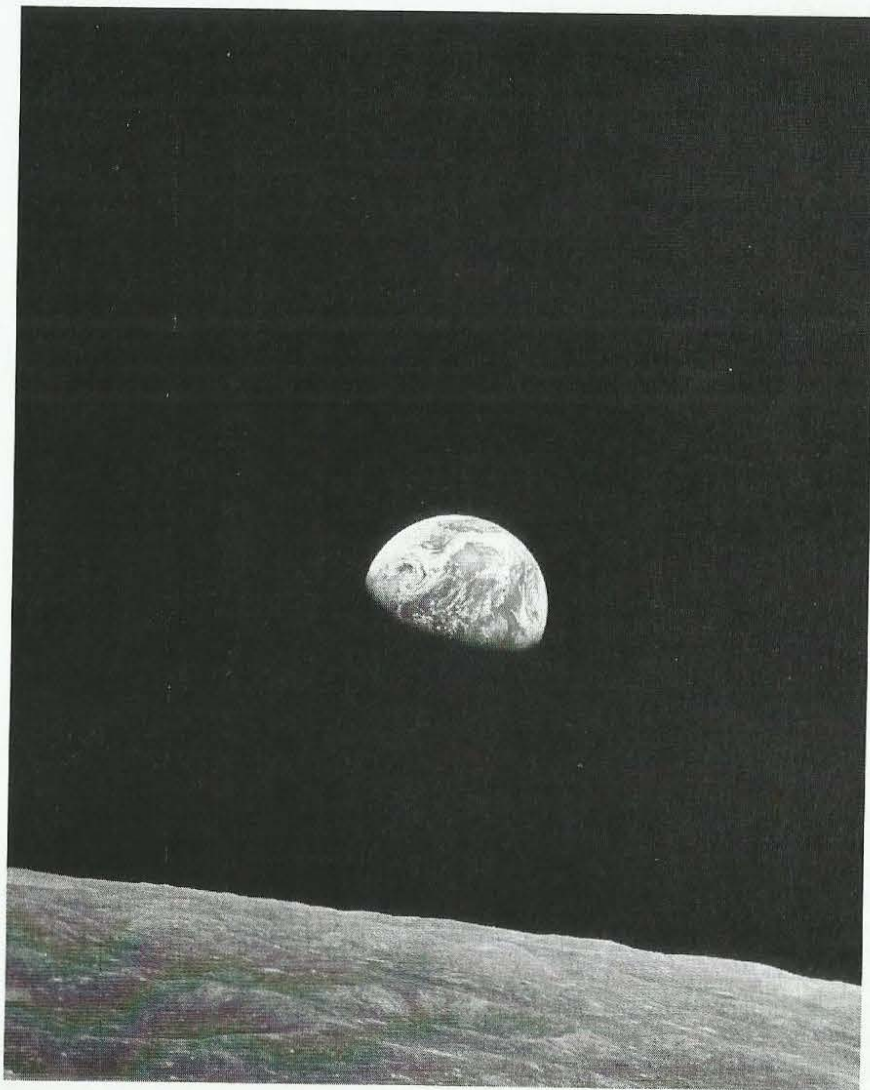


Fig. 13.5: Rise of the earth over the horizon of the moon^{<i>}

<i>: Mitton, S. (Herausg.): Cambridge Enzyklopädie der Astronomie, Orbis Verlag (1989), note: No star is seen.

<ii>: see also the references in part 1, chapter 6.9

13.5 Experiences from space travel

The good correspondence of the calculated shortening of the measurement wire and the until now not understood measurement in the Tamarack mines shows both qualitatively, and quantitatively the correctness and useful applicability of the theory of objectivity of the field dependency of the linear measures. Our measurement laboratories normally are situated on the earth's surface and there everywhere are found approximately identical field relations. But if we leave the usual measurement environment and move the laboratory for instance in the sky, then we experience a complete mystery. Here however prevail the reversed conditions as in the mines experiment, in which in the inside of the earth, for an increase of the field strength, a length shortening was measured. *In the sky the field strengths decrease and the linear measures correspondingly increase.*

This experience astronaut Roosa made in the Apollo 14 mission. While he alone in his capsule orbited the moon, he depicted mission control, he could see the lunar module and observe his two colleagues at their work on the moon. Nobody wanted to believe the astronaut, since he was flying in a height of 180 km!

Commander Armstrong (Apollo 11) at the first landing on the moon indicated, the target crater Mackensen, 4.6 km in diameter measured from the earth, just has the size of a soccer field! Astronaut Scott (Apollo 15) called Mount Hardley, which is said to be 4.8 km high, a practice hill for skiing. Perhaps they somewhat have exaggerated, but a true core in the statements always is present.

Actually the gravitational field of our satellite is very much smaller than that of the earth. On the surface of the moon there is only one sixth of the gravitational pull of the earth. If we, to be able to compare, stick to the details of size, as they are measured by our laboratory on earth, then the astronauts on the way to the moon together with the lunar module and their rover had grown for a factor $\sqrt{6}$, then the first footprint is 2.5 times as large as on earth, then the astronauts were moving like giants in the scenery of a model of the railroad (eq. 13.23 and note^{<ii>} at fig. 13.4).

On the moon there exists almost no atmosphere, for which reason the astronauts had imagined a wonderful view of the star-spangled sky, at least before they started. After the landing they were bitterly disappointed. The sky was black and not one single star could be seen! They have brought many photographs, but nowhere stars have been photographed, they apparently have moved outside the range of vision (fig. 13.5 and 13.6). Many will still remember that the first pictures, which the space telescope Hubble supplied 1990, were completely blurred. The problem obviously was, that the mirrors had been adjusted on earth and not in space. Only after the optics had been given glasses in 1994, sharp pictures could be radioed to earth. Somehow the distance to the stars had changed. The telescope had become short-sighted, resp. the distance to the star-spangled sky appeared to be gotten larger. We already know why. If we remove us from the gravitational field of the earth, the field strength decreases and the observable distances increase! The highly sensitive telescope already sufficed the 5% deviation, with which should have been reckoned for the near earth orbit, to be fatal.

One should have familiarized the astronauts before with the laws of physics. Then this disappointment would have been spared to them, and in the case of the Hubble telescope the NASA and the european ESA could have saved a lot of money for the sake of the tax-paying population^{<ii>}.



Fig. 13.6 a: Illustrierte Wissenschaft Nr. 11 (1997) Page 62

1st example: landing on the moon
gravitational ...

$$\frac{\text{...pull of the earth}}{\text{...pull of the moon}} = \frac{g_E}{g_m} = \frac{M / R^2}{m_m / R_m^2} = \frac{M}{m_m} \cdot \frac{R_m^2}{R^2} = 6,0375 \quad (13.27)$$

in space everywhere on the surface of a sphere is valid: $A = 4\pi R^2$
eq. 13.20 (fig. 13.4<iii>): $m \sim \phi = A \cdot B = 4\pi R^2 \cdot \mu H \sim R^2 \cdot H$
as well as eq. 13.23 (fig. 13.4<ii>) for the field dependency: $H \sim 1/l^2$

and further:

$$6,0375 = \frac{g_E}{g_m} = \frac{H_E}{H_m} = \frac{l_m^2}{l_E^2} \quad (13.28)$$

resulting in the length dilatation (expansion) on the moon:

$$l_m (\text{Mond}) : l_E (\text{Erde}) = \sqrt{6,0375} = \underline{2,457} \quad (13.29)$$

2nd example: communications satellite in a geostationary orbit
(at $h = 36000$ km above the equator, $R = 6378$ km).

$$\frac{l_h}{l_E} = \sqrt{\frac{H_E}{H_h}} = \frac{R+h}{R} = \underline{6,64} \quad (13.30)$$

Fig. 13.6 b: Examples of calculation for length dilatation<i>

<i>: If the theoretical value of 6.64 could be quantitatively confirmed by observations from off the earth with a telescope at a corresponding magnification, then with that would have been proved, that in the case of the spherical aberration it actually concerns the calculated influence of the field.

<ii>: U. Seiler-Spielmann: Das Märchen vom toten Mond, Zeiten Schrift 5/94, S.39

13.6 Spherical aberration

It is true that the problem of the changed length relations is known to the experts under the term of a „spherical aberration“. But with that it is neither qualitatively nor quantitatively understood. Only the theory of objectivity soundly gives reasons for, why the astronaut Roosa has seen his colleagues almost 3 times as large, why weather satellites in a height of 1500 km are approx. 25% larger and why communications satellites in a 36000 km high geostationary orbit even increase to the 6.64 fold of their original size<i>. It also explains, why the neutral point between earth and moon, at which the attraction of masses of both celestial bodies mutually cancel, wasn't reached at the point where it had been expected by the moon rockets<i>.

We, the inhabitants of the earth, are adapted completely to the conditions on the earth's surface. If we find our way well in the dimensions of space and time, as we observe them, then that must not be valid by all means for science, because that has made it its business to find out the secrets of nature.

If it wants to deserve the name science, then it on the one hand has to consider, that we, the organic materials, as well as all inorganic materials are assembled from the same atoms and molecules and with that are exposed to the same length relations. If changes in length between day and night (as a result of the gravitational field of the sun (see chap. 6.7), between summer and winter or as a result of changes in field occur, then we aren't able to register this at all. That even today the „foot“ is used as a measure, for instance in the air traffic, shows only too clearly, how man raises itself to the measure of all things. Science asks for modesty.

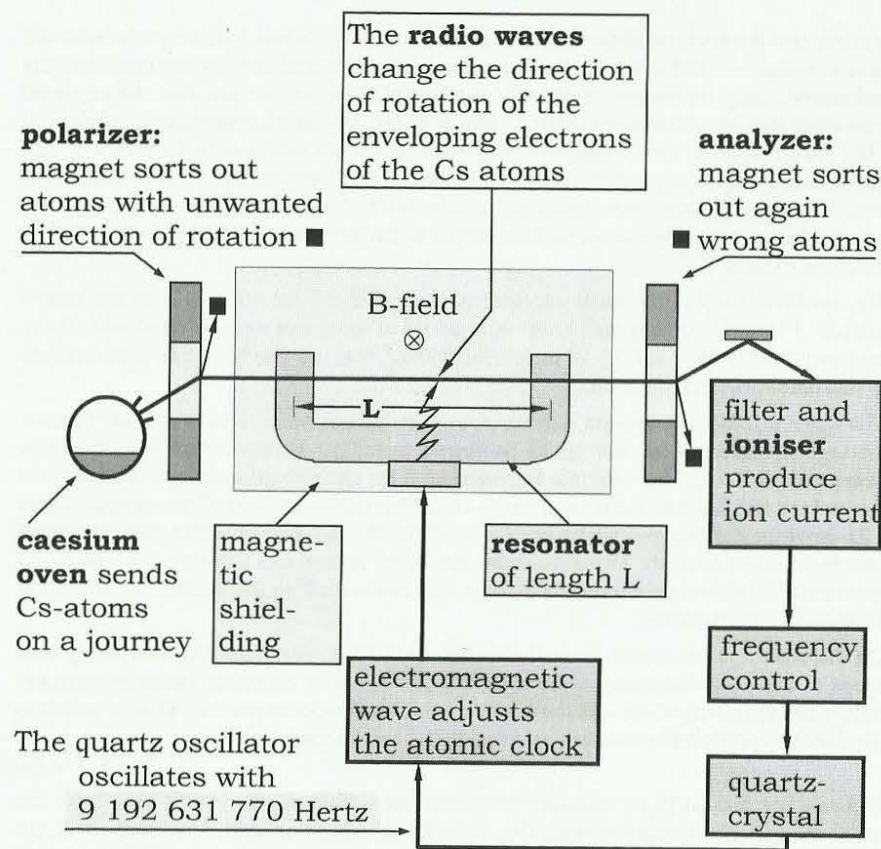
On the other hand it should be paid attention to the fact, that man eyes everything with speed of light with the optics of his eyes, and that speed by no means has to be constant. Solely the definition of the speed of light c as a linear measure per unit of time points to the direct proportionality between c and a length l (see chapter 6.3):

$$c \sim l \quad (13.31)$$

If a rule has proven to be unusable for measuring a distance, then we'll experience the same disaster, if we measure optically, i.e. with the speed of light. Obviously both, the length l and the speed of light c depend in the same manner on the respective local field strength. On the one hand both measurement techniques lead to the same result, but on the other hand what can't be measured with one method, neither can be measured with the other.

To prove the constancy, it is normal to measure the speed of light optically. But since there exists a proportionality between measurement variable and measurement path (53), the unknown variable is being measured with itself. This measurement faulty by principle in all cases delivers a constant value. In contrast to the textbook opinion of today by no means a constancy of the speed of light can be assumed. In the case of the in a vacuum measurable 300,000 km/s it concerns a capital measurement error, at best a constant of measurement, but never ever a constant of nature.

With the postulate and the misinterpretation of a constancy of the speed of light as a universal constant of nature Einstein already let several generations of physicists run into the same dead end, in which they today are stuck altogether. It surely is no accident, that the big time of discoveries abrupt came to an end with Einstein.



Schematic representation concerning principle of functioning

L = length of resonator determining the exactness

The B-field is a weak magnetic field, which eliminates the influence of magnetic stray fields.

The arrangement in addition is situated in a vacuum tank.

Fig. 13.7: Set-up of a caesium atomic clock

13.7 Irony of the measuring technique

Let's record: The linear measure is determined and defined by a measurement of transmission time. As a reason is given, that with today's clock technology a higher precision and reproducibility can be obtained, as with a rule or original meter.

The exactness of going of the atomic clocks again depends on the free flying path (L in fig. 13.7) of the atoms. For the caesium clocks of the Physikalisch Technischen Bundesanstalt in Braunschweig the resonator length amounts to several meters. The clock is used world-wide as a standard.

The irony thus lies in the fact, that a geometric length dictates the measurement of time and the measurement of time again determines the measurement of length - poor science!

How does one free oneself from a capital closed loop conclusion? Why and how do signal transmission times or clocks actually depend on the gravitation? Who once got stuck in a dead end, knows that he only can get out in the reverse gear.

A possible way goes back to the roots of classical physics and to the theory of objectivity in the 1st part of the book, which is free from the limits of a subjective and relativistic observer standpoint. That isn't a dead end and in addition explains, why all atomic clocks react sensitive to magnetic fields (magnetostriction) and what these fields have to do with gravity (see chap. 6.9).

Today's clocks are so exact, that even differences between a clock stationed on a mountain and one at sea-level can be recorded. Even more clearly was the depending on gravitation determined at an atomic clock, which was shot in a rocket 10000 kilometres high into space. The result of the analysis without doubt was, that the clock in that case doesn't „tick“ correctly anymore.

But what does theoretical physics say about it? It claims, here the „red shift“ has been measured; it thus concerns a confirmation of the special theory of relativity. But since it concerns a clock experiment and not a light signal, it clearly contradicts this theory, which isn't able to describe any gravitational effect at all, as is well-known. For this case in the spheres of theoretical physics one helps oneself with the general theory of relativity, with which actually only would be proven, that the two theories from the legacy of Einstein completely incompatible contradict each other. We come to the following conclusion:

Whoever gives details about length or time, is obliged to also indicate the reference system.

He also has to inform where his laboratory is situated and with which devices he measures.

With the conclusion also the discussion would be opened. Throughout the last four chapters a main idea can be found. It should be worth, to again think about the brought forward arguments and to dare a comparison with text books.

In the text books there doesn't exist such a thing as an oscillating interaction. Here no answer is found to the question, why the solar system isn't hurled out of the galaxy as a result of the high velocity, why the inside of the earth is hot, how the geomagnetism is formed, why the continents drift and why the ocean floor nowhere is older than 200 million years, as samples from the ocean floor prove^{<i>}

<i>: Kendrick Frazier: Das Sonnensystem, Time-Life Bücher, Amsterdam (1991).

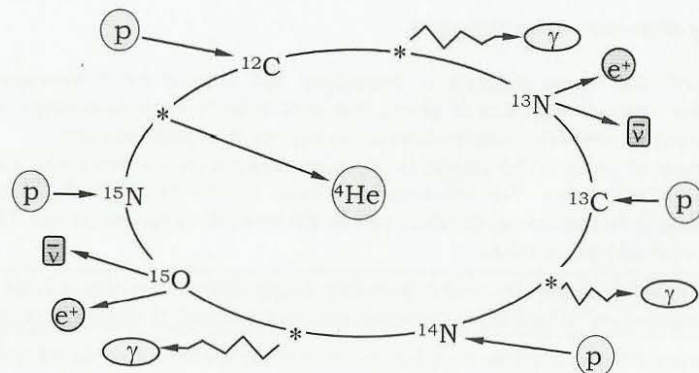


Fig. 13.8: The Bethe-Weizsäcker cycle (concerning the sun's fire)
(meaning of: ^{12}C = carbon nucleus, ^4He = helium nucl.,
 γ = gamma quant, ^{14}N = nitrogen nucleus, p = proton,
 e^+ = positron, $\bar{\nu}$ = anti neutrino, ^{16}O = oxygen nucleus

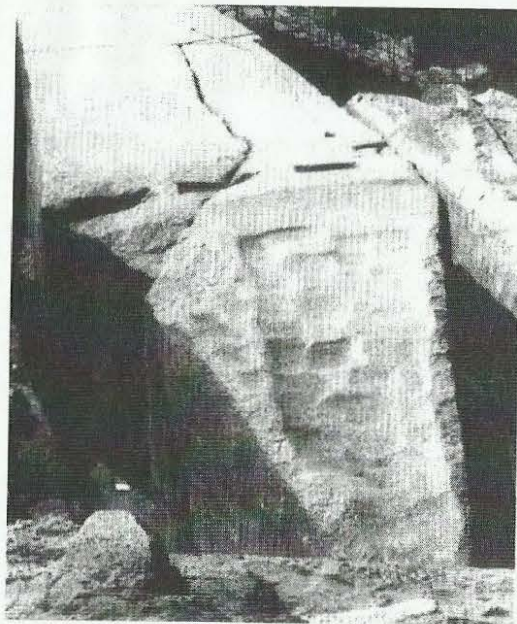


Fig. 13.9: The top of the unfinished obelisk in Assuan^{<i>}

<i>: Hermann Wild: Technologien von gestern, Chancen für morgen,
Jupiter-Verlag Bern (1996), ISBN 3-906571-13-0

13.8 Discussion of the cosmological insights

The numerous models which are offered, of a geodynamo, an iron core, of assumed zones of subduction and of plate tectonics may be helpful for the explanation of individual isolated phenomena. But they physically don't give a uniform picture and partly contradict each other.

Lord Kelvin had calculated a period of shining of 5000 years on the basis of a sun consisting of coal^{<i>}. The german physicist Hermann von Helmholtz landed at 15 million years, in which case the sun yearly should shrink for 100 meters. He already assumed a temperature of 15 million degrees centigrade, as also the Bethe-Weizsäcker cycle has as a prerequisite, which according to today's concept should describe the process of nuclear fusion taking place in the inside of the sun (fig. 13.8). The only thing is that this extreme temperature is completely incompatible with the high density in the core of the sun.

There are more than good reasons to assume the opposite of the widespread textbook opinion and assume that the core of the sun is cooled by the collected neutrinos in the same manner as the inner core of the earth and that superconducting areas are formed, which powerful fields even cause the protuberances on the surface of the sun.

Since in the sun no measurement is possible, with which a model could be verified or disproved, terrestrial arguments naturally suggest themselves. Here the pieces of evidence for the growth of the earth can be taken in the hand and photographed. We already have discussed some facts. But there are found a multitude of other ones, for instance from the domain of archaeology, for which text books of today until now as well provide no explanation.

Possibly the stones and monoliths weighing several tons, as they were used for prehistoric buildings, should be linked with the growth of the earth. If the earth was smaller at the time they were build, then they perhaps by no means were as heavy as today.

Then the stones for reason of the smaller density in addition were softer and with that easier to work on. Dr. Wild points to the building technical peculiarity, that the stones formed like cushions originally must have been soft. He proves with the photograph of the top of the unfinished obelisk in Assuan (fig. 13.9), that the traces of working stem from a spatula in a plastic mass.

Also the perfect fitting of the stones used for the building of the pyramids can only be explained in this way. In the joints not even a knife point can be inserted.

If even stones in the course of time increase in density and hardness, then it is easier for us to comprehend, how small rivers in past time could dig large deep valleys in the earth's crust, then we perhaps also understand, why very old bones today are petrified^{<ii>}. It is obvious, that also bones in the course of time increase in density and hardness. Even if science should succeed in breeding living dinosaurs, then their chance to survive in spite of that would be equal to zero, because the dinos would collapse under their weight of their own of several tons. Their bones would be much too thin and brittle for their weight of today.

<i>: Kendrick Frazier: Das Sonnensystem, Time-Life Bücher, Amsterdam (1991)

<ii>: The indication to petrified bones stems from a participant of the seminar.

25-07-1996:	Assistant head of government department Acceptance of the common standpoint.
11-12-1996:	European parliament Resolution of the guideline.
	commission Statement concerning proposals of change of the european parliament.
19-12-1996:	Assistant head of government department Resolution of the guideline.
19-02-1997:	Coming into effect of the guideline Publication in the official paper of the EC.
19-02-1999:	Period of translation of two years Reduction of the threshold values for current consumers: 19-02-1997: to 40 million kWh (opening of the market 23%) 19-02-2000: to 20 million kWh (opening of the market 28%) 19-02-2003: to 9 million kWh (opening of the market 33%)
until 2006:	„Anti imbalance clause“ A nine years period of transition to preserve equal opportunities in the competition. Report of the commission.
19-02-2006:	Further stage of the liberalization European commission tests by means of the made experiences, if the current market should be opened further.

Fig. 14.1: Timetable of the EC single market guideline electricity

<i>: Grawe, S. Thiele: Vorbereitung der Stromversorger auf den Wettbewerbsmarkt, ATW Atomwirtschaft-Atomtechnik 43. Jg. 1998, Heft 1, S. 10 - 13

14. The way towards free energy

Can energy actually be produced? No energy supply enterprise is capable to do that. Fact is, that energy only is converted and not produced. For that the available resources on earth are tapped and brought into a utilizable form of energy. As different the conversion processes may be, finally always heat is formed. We thus gradually burn the globe, on which we live. How long can something like that go right?

Science gives all-clear: „stock of energy is sufficient for the next 100 years. Newest calculations disprove the fear of a scarcity of energy on earth. There exist large stocks of coal and oil“.

But what are 100 years compared to the age of the earth? How will our descendants judge our thinking and acting? They will condemn it and curse us, that much is clear already today.

We have an obligation to preserve the environment, and we only will be able to fulfil it, if we look to nature, how it covers its need of energy, if we finally understand and meaningfully copy nature.

We still are miles away of the goal.

14.1 The liberalization of the energy markets

It is important in the interest of a member of the executive that the stock of energy doesn't draw to an end, as long as he carries the responsibility for the enterprise of the economy of energy. The interest in the environment and the environmentalists for obvious reasons is less distinct. The problems are more of a commercial kind. Concerning that an actual example is given.

A special kind of problem is the meanwhile Europe wide valid decree of the EU concerning the liberalization of the energy markets (fig. 14.1). The list of the consequences starts with the fact, that the concluded licence contracts for power supply between energy supply enterprises and the communities, which are valid till 1997, are only wastepaper. Every customer of electricity as of now can conclude an individual contract with every „producer of electricity“.

So an environmentally aware Black Forest person decides to obtain his power from a wind power station, which is situated in Denmark. That truly sounds very liberal. But how should that function, if there is no wind at all in Denmark for a week, or the connection is interrupted by a flash of lightning? The windmill further delivers power and the runner writes its bill truly believing, its power has arrived. The consumer then reads the bill at candlelight and puts with understandable anger his claim for compensation together. Pointing to the fact that such difficulties can be solved by book-keeping, the consumer again is calmed down; but that the not by contract obtained power will cost him dear, is another story.

<i>: Illustrierte Wissenschaft Nr. 6, Juni 1996, page 48 - 51.

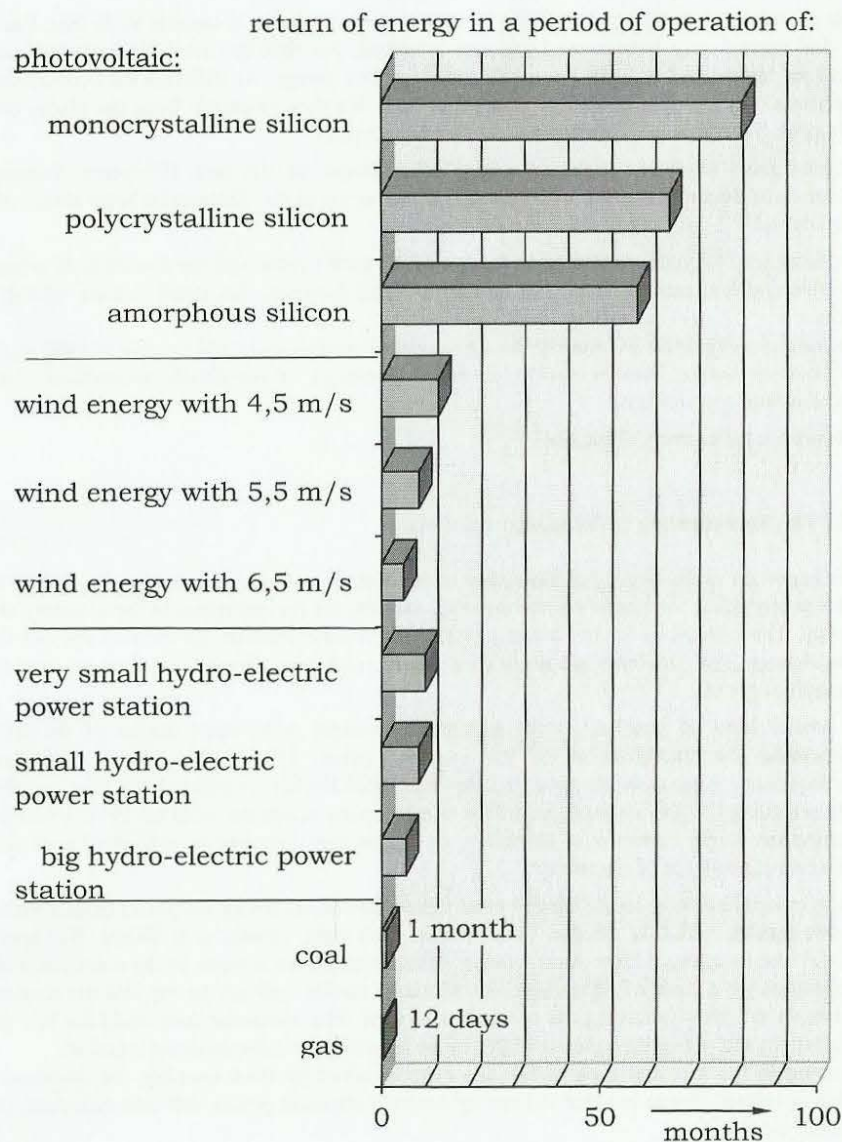


Fig. 14.2: Average time of paying for itself for the spent energy
(return of energy)

14.2 The consequences of the liberalization

With the EU decree the monopoly only has shifted towards the runners of the distribution nets, after all only one net is present. Competition however would require at least two nets, thus a doubling of all house connections and all high-tension pylons, but that fortunately is unrealistic.

To prevent fleecing of the consumers by means of the *net monopoly*, politics introduces in the place of the free market economy dirigisme and plan economy with the well-known concomitants: no-one will look after the existing nets, no-one feels responsible anymore, because after all they have become public good by decree. One thus lets the pylons rot slowly and repairs only in emergencies. This possible development really can't have been the good intention of the EU.

In the next few years we however will be able to observe for the producers of energy exactly the development, which the EU-commissioners have imagined: Total competition contest, price war and a struggle for power to survive economically. A chance only has the nuclear power station, which gets rid of its refuse cheaper and if need be even illegally or which lives of indirect state subsidies, or the brown coal power station, which increases its efficiency at night, when no-one watches, by switching off the expensive filters.

The first power stations, which are selected out by the liberalized energy market, are the *hydro-electric power stations* which stand closest to nature. They simply are too small and too intensive of personnel, to be able to survive.

Gas turbine power stations, which deliver the power for half the price, than are ranking first. Then there is no place for regenerative systems anymore.

Solar energy, how many roofs a supporting program may have, stays a toy supported by the state. For a photovoltaic installation the „Return of Invest“ still lies at more than 80 years, whereas is reckoned with a theoretical life of 20 years. In practical use on the other hand photovoltaic installations occasionally already have failed after seven years, after the photocells had gone blind. In this case not even can be talked of an ecologic energy, because the return of energy lies still above that. The supposed Idealist, who spoils his roof with photovoltaic to reassure his ecologic conscience, would have spared the environment more, if he had covered his need of power from the socket, because already the production of the photovoltaic installation gobbles up more energy than can be produced with it. With regard to the environmental compatibility the ecologic balance sheet of a power station is attached a central importance (fig. 14.2).

With the law of feeding in power the state intervenes dirigiste, supposedly to protect the consumers. With this law the state orders, that not it, but the energy supply enterprises have to take the subsidizing of the regenerative energy, that they have to take over the power delivered at the inappropriate time in exactly so less suitable amounts at a price, which exceeds the market value by a factor of two and for falling prices of power even by a factor of four. With the law the politicians very fast and without agreement of the affected enterprises have shifted the „black Peter“ further to these, which will get problems to preserve their competitiveness in the international comparison with the subsidy duty. It can't have been the intention of the EU-commissioners, that on a national level the price of power increases to finance some energy technical playground.

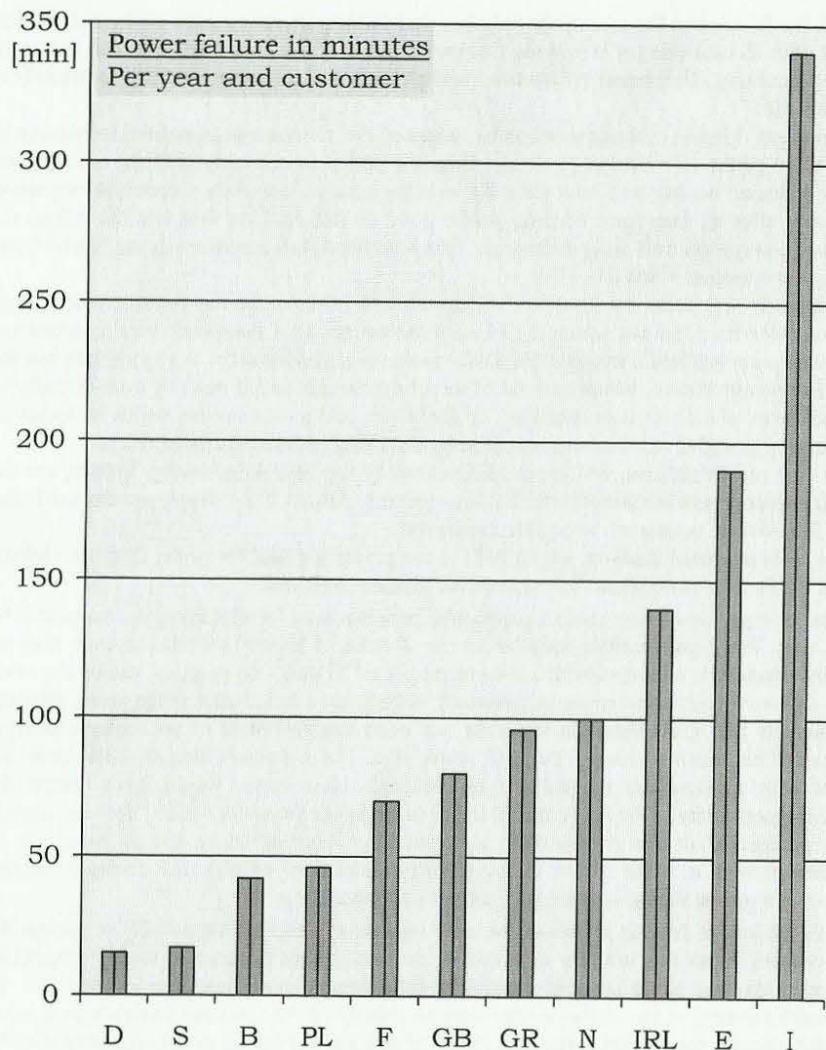


Fig. 14.3: Power interruption and not being at disposal

<i>: ETG, Energietechnische Gesellschaft im VDE: Qualität der Stromversorgung, Dialog Nr. 1, Jan./Feb. 1998, S. 21

14.3 The chances of the wind energy

Meanwhile, as a result of the law of feeding in power, no longer the politicians but the energy suppliers are the ones, who around the North Sea look out of the window every day with the worry, some wind could blow and the mills could turn, because every kilowatt hour of a windmill must be subsidized strongly. Every windless day however reduces the power bill, with that helps the consumer and raises the chances of competition of our economy.

If it should be neglected, to tip over the law of feeding in power in due time with help of the EU, then the consumers will get their power in future abroad, then at the Preußen Elektra, damaged most by wind energy, as the first the lights will go out, then economic power and prosperity in Germany in future are dictated from abroad.

But if the law is dropped, then with that the duty to subsidize the regenerative energy carriers drops back to the state. Now all tax payers may foot the bill, even those, who don't use any power at all. The well-known „justice of subsidy“ comes into effect.

Without support by the state only few types of power stations will be left behind. In addition are overcapacities being reduced, because they only cost money. But both is at the expense of the reliability of the delivering of energy and of the safety of the consumer. We owe the high stability of our network of today the large number of most different providers of power, which cover the basic load up to the peak load according to their suitability (fig. 14.3). But let us not talk of the golden past. The network after all isn't able to store power. From that follows, that without redundancy and without free power station capacities which can be activated at any time a short overload is sufficient, to let the network collapse.

Once the EU guideline concerning the liberalization of the energy markets is in effect, when persons selling power wend their way from front door to front door, to convince the housewives to obtain the power from them and not from other hawkers, when the power stations only live of stock and the depreciated overhead power lines only are entered in the books with the scrap value, then we should be dressed warmly and always have ready sufficient candles <i>.

14.4 The chances of being self-sufficient concerning energy

The only way out is the decentralized energy supply, the getting out of the large energy union and the way towards being self-sufficient. The argument sounds convincing in view of missing alternatives. But now it no longer is possible to plug the plug in the socket and then switch on whenever it pleases us. First it has to be calculated, if the windmill or the installation for solar energy supplies sufficient power or if a cold meal should be made. In contrast to today's consumer habits the runners of such installations will have to adapt their need of energy to the prevailing weather conditions.

<i>: A baby-Boom, like after the big power failure in New York, would be the smaller evil. The inhabitants and shopkeepers in the New Zealand metropolis Auckland will long and frightened remember the power failure in february 1998, which lasted weeks and was a result of not carried out maintenance works of high-tension pylons.

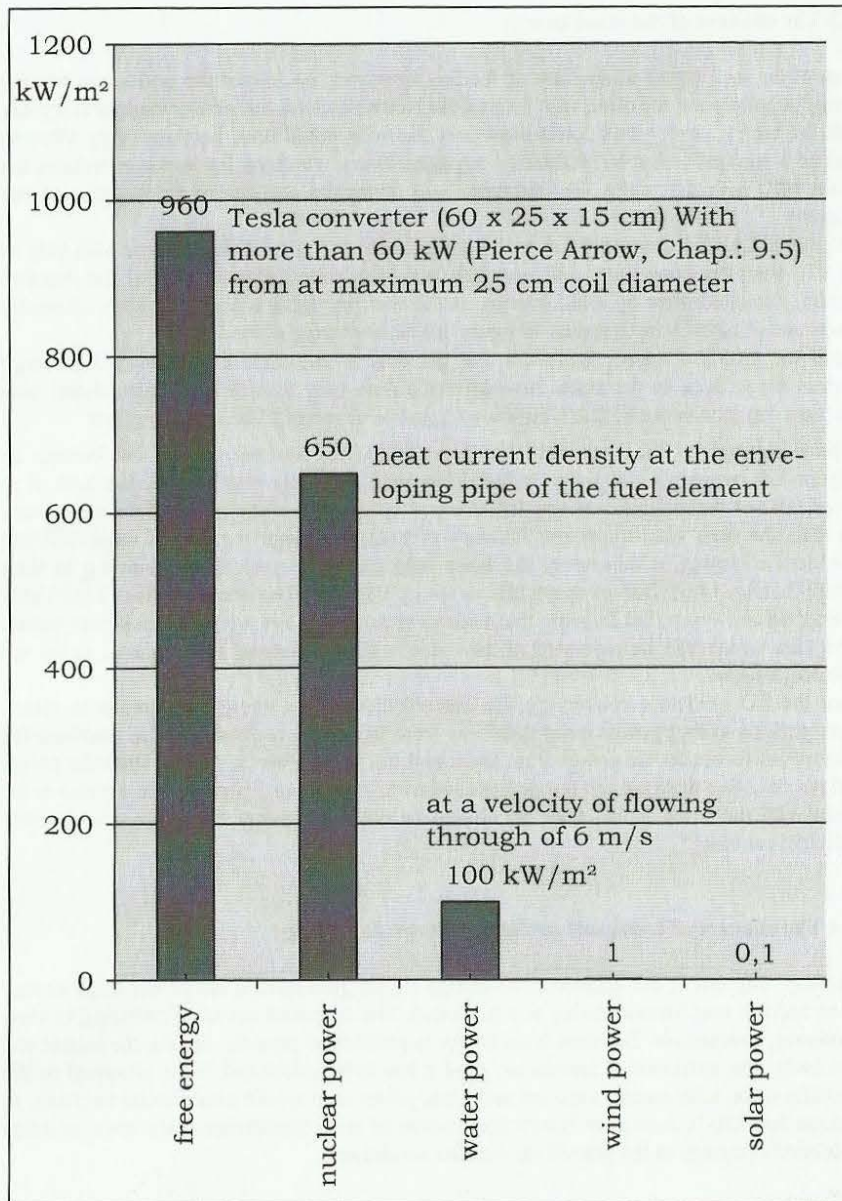


Fig. 14.4: At maximum obtainable power density of different carriers of energy

Block heating power stations, propagated as stand-alone solution for people being self-sufficient, deliver power and heat at the same time. But if I don't need any heat on a hot summer day, then also no power is available or I uselessly heat into the open. For that one may leave all electric consumers switched on in winter, even if they aren't used at all, only to get the hut warm. Does a stand-alone solution look like that?

The situation truly is demotivating. Even the energy suppliers meanwhile may have realized that the energy politic way is a dead end. But for real alternatives in energy technology the pressure by suffering still doesn't seem to be big enough.

The intention to learn of nature is present in principle. The solar fire one wants to kindle on earth in a fusion oven, but the oven does not as it should.

Obviously the sun functions completely different, as physics imagines today (see fig. 13.8). Before copying stands understanding, and in there seems to be a hitch.

14.5 The space energy technology of nature

Also nature needs energy, even very much. But it hasn't got any connecting pieces for tanking and no oven lid to fill in the fuel, it doesn't know our ecologically harmful combustion technology and environment destroying explosion technology at all. Nature rather works with the opposite, with implosion and fusion.

The sun, we have derived, materializes the matter which it needs for growing and shining from the neutrino field. The earth and other planets imitate the sun.

The concept is simple and convincing. The source of energy lies in the air and mustn't be dragged about in tanks. Collected and materialized is just as much, as is needed at the moment. In that way the resource energy is spared. In addition there can be done without any sort of storing. In addition it can show a substantially higher power density, than all today known and used energy carriers (fig. 14.4).

Such a source of energy solves all described energy problems at once. Nature wouldn't be as we know it, if it wouldn't have this ideal energy, also called „free energy“. The balance sheet of energy alone brings it to light, because as a rule it doesn't work out for biological systems. Often more energy is released than is taken up by the food.

In that case some migratory birds materially seen should have completely used themselves up before reaching their destination, if the energy necessary for the flight would be of purely material nature. From a concrete example the following is reported^{<i>}: „migratory birds have – depending on kind - a maximum range velocity between 24 and 83 km/h and at their Atlantic flights no opportunity for an intermediate landing. They are thousands of kilometres on the way and hardly lose weight. For instance an Albatross with a body length of up to 1.20 meters and a wing span of up to 3.50 meters uses per kilometre only 8.5 grams of weight at a non-stop flight. How is that possible without additional supply of energy?“

<i>: K. E. Rathgeb: Wie man die freie Energie anzapft: Vögel machen es uns vor, Raum & Zeit 79/96, S. 74

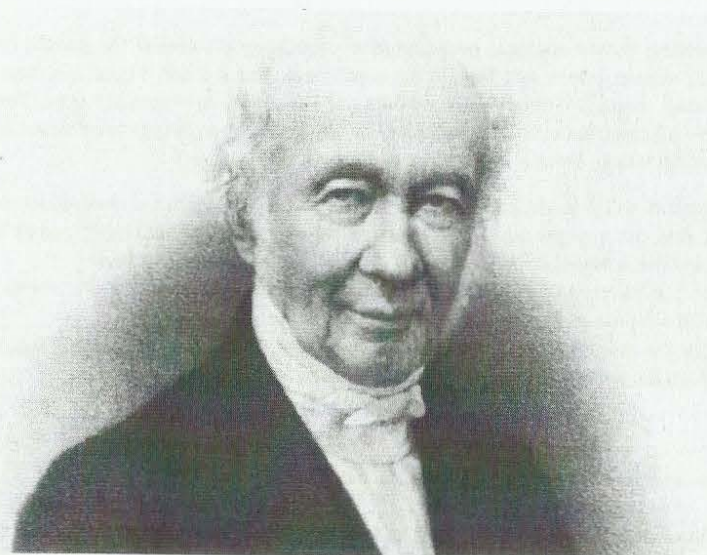


Fig. 14.6: Freiherr von Reichenbach (76 years old)

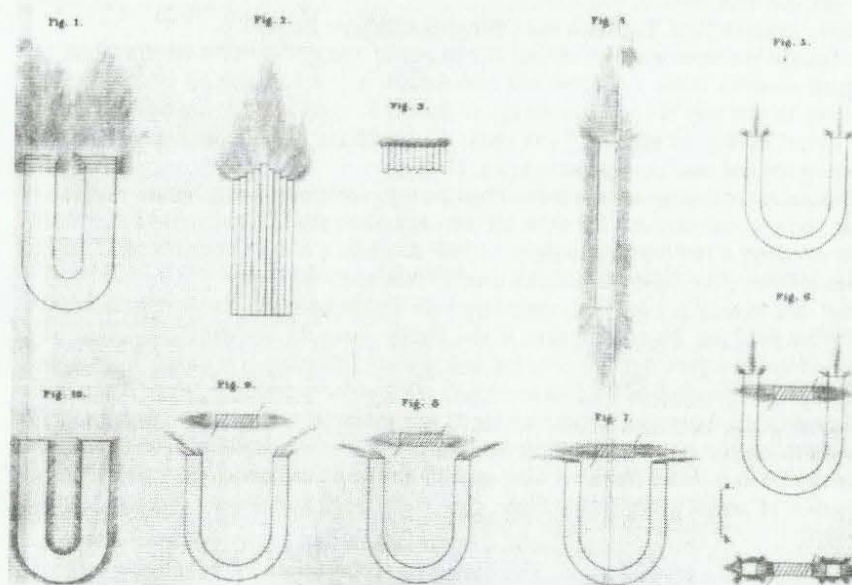


Fig. 14.7: Odic emanations of magnets according to pictures of sensitives.^{<i>}

^{<i>}: H.-P. Thietz: Tatort Erde, VAP (1996), ISBN 3-922367-62-3, Seite 13 und 15

14.6 The gap in the energy balance of man

Even man appears to tap an additional source of energy, because for reason of scientific tests with recruits these over longer periods of time are able to physically release more than twice the amount of energy they take of calories with the food. Obviously living beings don't rely on one source of energy alone. Possibly the taking up of food predominantly serves the metabolism, and the energy aspect plays only a secondary role. This interpretation at least would be obvious, since we scoff several times a day, sort the necessary and useful building-materials out and hand over the rest to the purifying plant and nature, where some bacteria and organisms search the sorted out again for useful things. „Food chain“ we call this kind of *building-material trade*.

If the whole had anything to do with energy or with a „*combustion process without fire*“, then no animal nor any human being could do without the taking up of food for longer periods of time. But Franciscus of Assisi could fast 90 days, as is handed down to us^{<ii>}. There exist numerous examples, which reach into the time of today.

The mitochondria, the energy centres of each cell, by no means are capable of the „combustion process“, which man ascribes to them. Here in all probability a taking up of space energy independent of food takes place.

A research scientist only has to look at nature with open eyes, what unfortunately happens rarer and rarer, because the laboratory scientist always is troubled, to keep the *disturbing factor* „nature“ away from the experiments.

14.7 Carl Freiherr von Reichenbach

In this context no-one can go past two natural scientists: Carl Freiherr von Reichenbach (1780-1869) and Dr. Wilhelm Reich (1897-1957).

Reichenbach called the by him investigated life energy „*Od-energy*“ in the style of the Teutonic God Odin. He worked with test persons, who could perceive actually invisible light phenomena and worked out the special properties of this Od-energy field with the „sensitives“, as he called them.

A quotation from his work shows however that the knowledge about the life energy must be a lot older^{<iii>} than his own discoveries: „On paintings saints often are shown with a ring-like *aureole* around their head, something I before this would have dismissed as a pure figment of imagination. But it was shown that this glowing ring actually can be perceived by the sensitives as an Od-phenomenon and so the aureole obviously can be traced back to real impressions of particularly sensitive persons.“

Reichenbach also found out that water has a big endeavour to take up this Od-energy or in the language of the present day, to absorb the field energy. This circumstance we find confirmed in technology, since water absorbs high-frequency waves, whereas an insulator or a vacuum lets them pass through. But without vortex physics it however remains entirely unclarified, why.

^{<ii>}: H.-P. Thietz: Tatort Erde, VAP (1996), ISBN 3-922367-62-3, page 110

^{<iii>}: H.-P. Thietz: Tatort Erde, VAP (1996), ISBN 3-922367-62-3, page 16

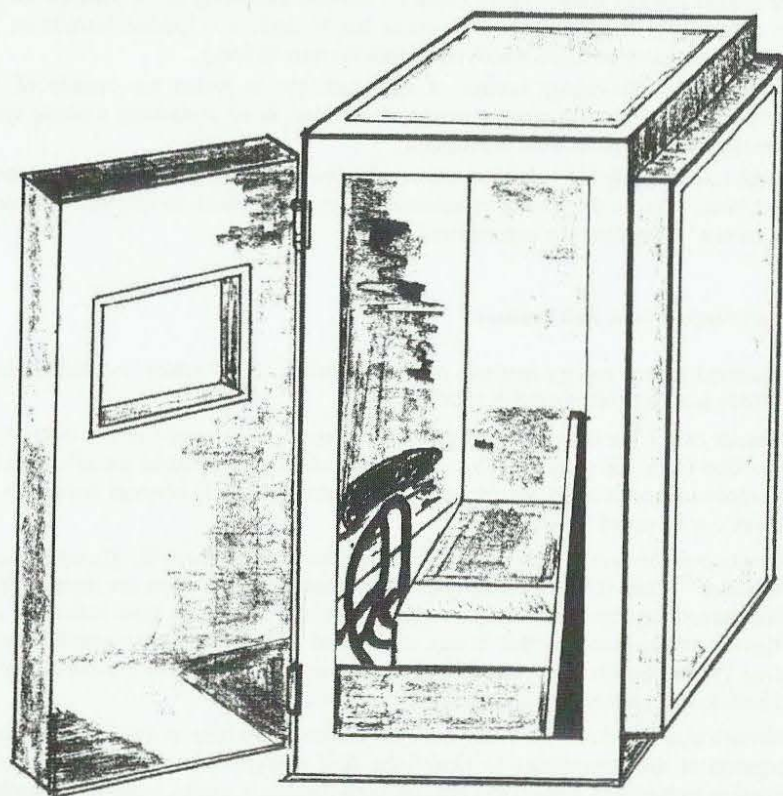


Fig. 14.8: Wilhelm Reich and the model of an Orgon accumulator for applications of the whole body.^{<i>}

<i>: taken from: H.-P. Thietz: Tatort Erde, VAP (1996), ISBN 3-922367-62-3, pages 38 and 89.

14.8 Cold fusion and Genesis

Chronologically the doctor and psychologist Wilhelm Reich followed in the footsteps of Reichenbach. He merely altered the name for Od and spoke of Orgon. His speciality was the accumulation of Orgon radiation, I would say the focussing of neutrino radiation. Actually the properties like e.g. the missing possibility to shield Od, Orgon and the neutrinos are identical, so that we can proceed from assumption, that it also concerns the same physically.

We already talked about Wilhelm Reich (part 1, chapter 9.2). He could show that the measurable temperature in a closed box, constructed like an „Orgon accumulator“, is increased in a mysterious manner without supply of energy from the outside. He even could prove, that this energy actually concerns the sought-for life energy, as he observed the creation of life in the laboratory under the microscope. For that he cooked muscle fibres, vegetables or other cells so long until the cell structure had been destroyed entirely. But from the educts entirely by itself new living beings, like protozoa or algae, were formed^{<i>}.

Reich at his microscope actually followed the transition of dead to living matter. What is of interest here, at first only is the energy technical aspect of this conversion. Later we will occupy us with the at the same time occurring information technical aspect.

Worth mentioning seems to me the experiment with the „silly“ chickens, which have at their disposal astonishing abilities besides the laying of eggs^{<ii>}.

The test chickens were handed chicken food, from which to a large extent all calcium had been extracted. But the chickens showed themselves unimpressed and further laid keenly their eggs. The experimenters were surprised, where the chickens actually got the lime for the egg shells. How solves such a chicken the problem of raw materials?

For that further materials were extracted from the food and look, at the removing of silicon the laying of eggs was over. The experiment actually only allows the conclusion, that the „stupid“ chicken is capable of a cold fusion, that it itself „produces“ the necessary calcium from silicon presumably by using carbon. Every alchemist here has to go pale with envy. But what says the research scientist of fusion to that, who actually should know, how fusion functions? After all he is paid for it by the tax payer. The chicken uses the fusion already today and the other living beings presumably also, but for that energy is needed and the balance sheet should work out.

The neutrino radiation therefore has to be factored into the balance sheet of energy. If the balance sheet then works out, it could be proven with that, that here neutrino energy is put to use. In addition the process of the conversion of neutrinos has to be investigated, which surely has something to do with the frequency and the wavelength of the radiation. After all a child has cells exactly as big as an adult. It only has less cells. So that an interaction can occur, the cell size has to fit in with the wavelength, which obviously is very small, presumably in the range of the radioactive radiation, with which circumstance the biological incompatibility with this electromagnetic wave would be explicable.

<i>: H.-P. Thietz: Tatort Erde, VAP (1996), ISBN 3-922367-62-3, S. 39

<ii>: Louis Kervran: Biological Transmutations, s.a. J. Heinzerling: Energie, S.278

1. Primary reaction

(light reaction in the centre of reaction):

ring-like vortices/neutrinos are being collected

electrons are formed

energy is produced

 e^- is attracted by the water dipole

water molecule is being splitted (photolysis):

2. Secondary reaction (dark reaction):carbon dioxide is reduced with the hydrogen
splitted off from the water to carbohydrate

Reaction equation of photosynthesis:

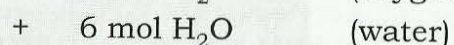
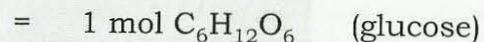
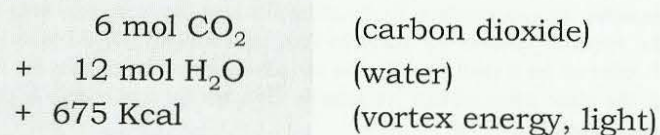


Fig. 14.9: Concerning photosynthesis

14.9 Photosynthesis

The materialization of free electrons is a prerequisite to start the *photosynthesis*. The normally used explanation, the free electron necessary for the splitting of the water molecule was knocked out an atom by light, doesn't seem to be correct, after until now all attempts of a technical realization according to this model concept have failed. At the photosynthesis the plants obviously help themselves with the neutrino radiation, which according to an estimation of today with 66 billion particles per second and per square centimetre might be more than sufficient for a green earth.

If we put a seed in a water glass, then a plant grows from it and forms small leaves, which get bigger and bigger. A wonder of nature, we say. Where does it actually get its building-materials? From the water or from the air? Necessarily the plant obviously produces a part of the matter itself!

Experts think they have understood the process of photosynthesis: Take light and water and carbon dioxide and handicraft from that sugar and oxygen. But from where does the plant take the necessary energy for the rebuilding and the splitting of the water molecule, the photolyse? The taken up solar energy hardly is sufficient for that, especially since the plants only absorb about 1% of the photosynthetic utilizable sunlight incident on earth^{<i>}. By means of reception molecules, which look like small antennas, pigments less than 30 nm in diameter, such is the level of knowledge, the sunlight is collected and led into a photochemical centre of reaction. Here the reaction should take place, provided that an electron set free by the light jumps into the middle of the centre of reaction. But exactly this favour the electron doesn't make the research scientists, who want to imitate the process. Copying nature still doesn't succeed.

The mistake presumably lies in the circumstance that the light doesn't set free any electron at all. The electron actually first of all is produced in the centre of reaction. By means of the antennas a neutrino vortex is collected, which at first occupies the entire space, to afterwards contract to an electron, which as a result automatically is centred in the centre of reaction.

In the process of materialization at the same time the necessary energy of the process is formed. The reaction equation after all also has to work out energetically, because the plants doing so get neither hot nor cold (fig. 14.9).

Because curiously the light reaction even can be observed in the dark^{<ii>}, one could be inclined to in principle call into question the influence of light on the photosynthesis. But such an influence nevertheless seems to be present, after all does a plant react on the irradiation of light and changes its spectrum of absorption through its colour. But it for sure is another influence and not the one, which one attributes the green plants today!

It would be important to finally understand the way of functioning. The plants and particularly the algae are the ones, which actually first have made possible life on this planet with the photosynthesis, the most original form of a production of matter and energy.

<i>: Lüttge, U. u.a.: Botanik, VCH, Weinheim (1994) ISBN 3-527-30031-7, S. 136

<ii>: Lüttge, U. u.a.: Botanik, VCH, Weinheim (1994) ISBN 3-527-30031-7, S. 126

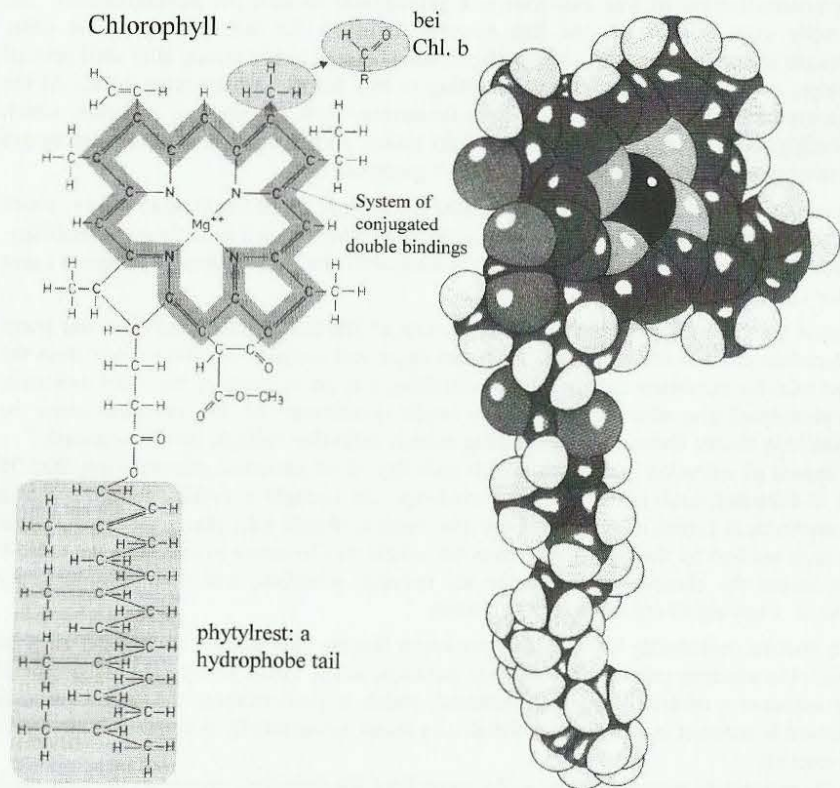


Fig. 14.10: Formula of structure and spatial model of the photosynthesis pigment chlorophyll. <i>

14.10 How nature materializes

The structure of the receiver antenna allows us a deeper insight into the manner, how free energy is tapped during the photosynthesis. For the dimensions determining the frequency of the photosynthesis pigments, as the antennas are called, we have to go down to the molecular structure. Fig. 14.10 shows the formula of structure and next to it also the spatial model of the pigment chlorophyll <i>.

Two points point at the function for free energy conversion. On the one hand is situated in the centre of the molecule a double positive ionised Mg atom, surrounded by four nitrogen atoms and a carbon ring consisting of 20 atoms, from which arises a polarization of the entire molecule. This in addition is oscillating because the electron cloud of the enveloping electrons, which hold the molecule together, perform swirl oscillations depending on the temperature. With that chlorophyll is able to go into resonance with oscillating neutrinos.

A role play the unipolar field configuration and the effect of resonance of the molecular oscillation of its own forming as a result of the polarization. A further role in addition seems to play the spatial structure.

The model of the „receiver antenna“ chlorophyll taken out of a textbook <i> and shown in fig. 14.10, consists of a stalk and a spirally wound head, which resembles a Lituus or crook, which Etruscan and Roman Augurs have taken in the hands for land surveying, a precursor of the crosier (see fig. 16.10). This again has the form of a Tesla coil and that, as already derived, is able to withdraw rotational energy from the collected neutrinos (chapter 9.8). Doing so free electrons are materialized, and these then start the process of photosynthesis. An explanation concerning the way of functioning of the antenna pigments here for the first time is getting available.

By the way also the mitochondria, which form the energy centres in every cell, have as well the form of a Tesla coil. Whoever wants to understand the energy economy of a cell or the photosynthesis first should occupy himself with the Tesla coil (chapter 9.8).

The open question, how land surveying should be possible with a Tesla coil, we at first still have to shelve, because in this chapter it concerns the way towards free energy and the chance to learn of nature. Examples to be looked at are on the one hand the core of fusion in the inside of the earth and on the other hand the humus layer on the surface of the earth, which has been materialized in the course of time with the help of photo-synthesis.

The goal seems to be worth striving for. If we in the first place have learned to produce energy exactly like nature, then we'll further try to produce matter purposeful, with which ageold alchemist dreams could be fulfilled. We wouldn't need to scrape and to search in some mines any longer. We would materialize the products without refuse, naturally and just for the environment, direct in the final form. I admit that at present it sounds pretty futuristic.

With another example, the lightning and particularly the ball-lightning, the collection concerning the use of free energy in nature shall be completed.

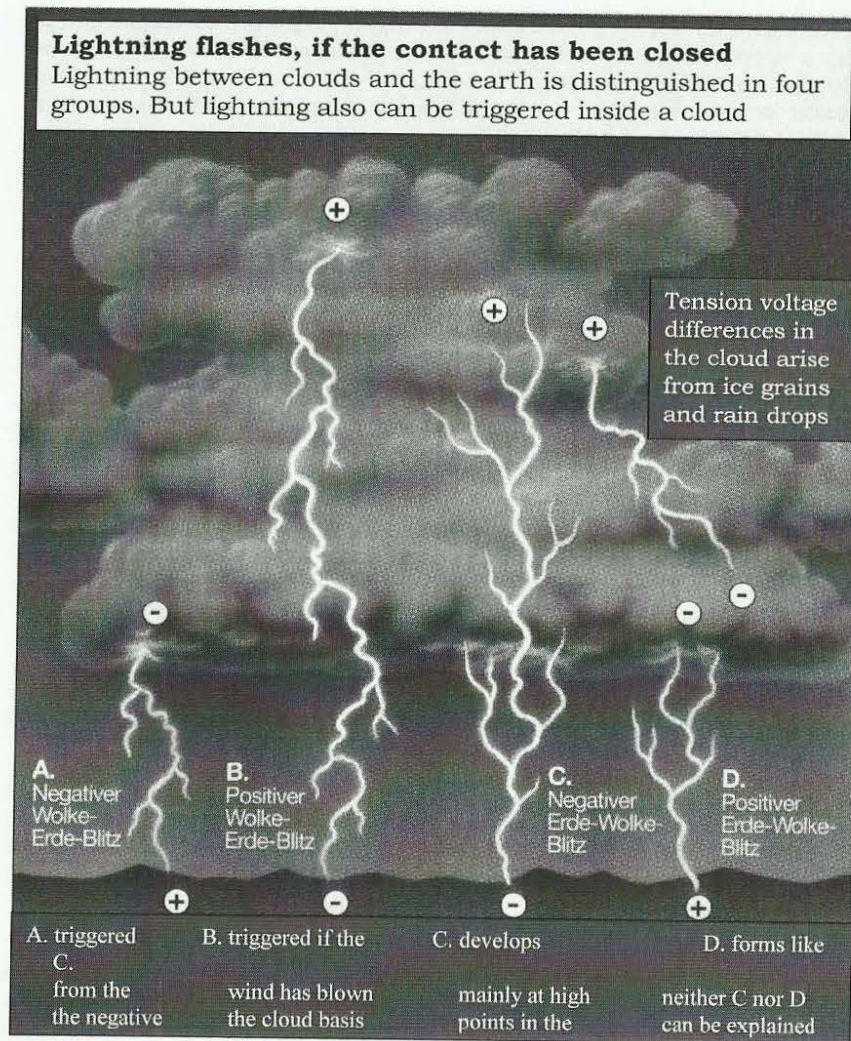


Fig. 14.11: Concerning lightning.^{<i>}

<i>: taken out of: Illustrierte Wissenschaft Nr. 8, August 1995, Das unverstandene Phänomen der Blitze, S. 13

14.11 Lightning

Lightning is a spectacle of nature just as imposing as unsolved. It concerns an electric process of discharge, in which to the amazement of all experts arrive for several powers of ten more charge carriers at the surface of the earth, than before were contained in the cloud! Furthermore unsolved is, why lightning glows. Let us start with the open question for the difference of potential necessary so that the air is ionised and a lightning channel is formed.

If at first the electric tension voltage of 200,000 volts between the surface of the earth and a height of 10 kilometres is available, which according to our calculations results from the rotation of the earth and the magnetism of the earth (fig. 11.8). Another source of tension voltage is not known. By air movement and supposed processes inside a cloud locally an additional accumulation of charge carriers may occur, so that in the case of a thunderstorm the by Tesla assumed, twice as big value doesn't seem unrealistic^{<i>}.

On the other hand a tension voltage between 4,000 and 10,000 volts is necessary so that a blow can occur for an air gap of one centimetre depending on the atmospheric humidity^{<ii>}. Linearly projected the thunderstorm cloud theoretically should hover just one meter above the earth if there is lightning.

Here somehow a huge gap gapes between theory and practice.

At the latest at the spikes, the mysterious lightning, which strike out of a thunderstorm cloud upwards in the direction of the ionosphere and the still more mysterious ball-lightning it has to get clear, that the actual source of tension voltage of a lightning by no means is known. Without knowledge about the cause we'll never understand lightning.

The potential vortex theory offers an useful approach, according to which the necessary difference of potential is formed from a formation of vortices^{<iii>}. The vortex again, as damping term in the wave equation, occurs as a result of intense sun irradiation. That explains why lightning always strike from the part of a cloud, which is the darkest, where the most sunlight is absorbed and the damping is the largest.

The possible formation of ice in a lightning channel is a further confirmation for the correctness of the vortex explanation. After all it has been derived that contracting potential vortices withdraw heat in principle (fig. 12.8).

But now we also want to know from this efficient theory, why photons and electrons are formed during the lightning and where they come from. Here obviously energy is formed by means of materializing of vortex particles.

<i>: R. L. Clark: Tesla Scalar Wave Systems, The Earth as a Capacitor, The Fantastic Inventions of Nikola Tesla, ISBN 0-932813-19-4, S. 265

<ii>: Karl Küpfmüller: Einführung in die theoretische Elektrotechnik, Springer-Verlag Berlin, 12. Auflage 1988, ISBN 3-540-18403-1, S. 221

<iii>: K. Meyl: Potential vortex, Part 1: Discussion contributions to the natural scientific interpretation and concerning the physical-technical usage, basing on a mathematical calculation of newly discovered hydrotic vortices, INDEL GmbH, Verlagsabteilung, Villingen-Schwenningen 1990.

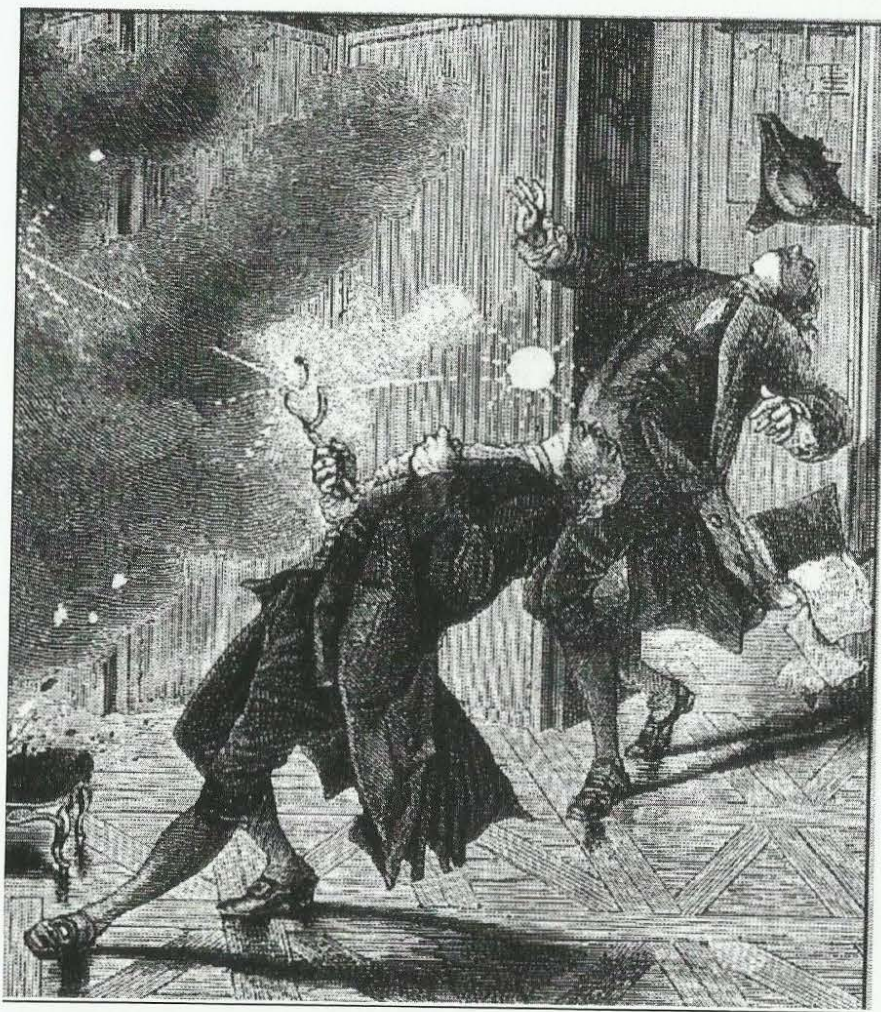


Fig. 14.12: Contemporary representation, how 1753 lightning research scientist Prof. Richmann is struck deadly by ball-lightning in his laboratory. ^{<i>}

^{<i>}: Illustrierte Wissenschaft Nr. 8, August 1995: Das unverstandene Phänomen der Blitze, page 13

I proceed from the assumption that lightning collects and converts neutrinos. The process corresponds to the one at the sun, but on a smaller scale and only for a very short time. The lightning channel is polarized by the charge carriers. Change of temperature and field lead to a spatial oscillation, which by the way also functions as a source of sound, as anyone can hear. Taken both together lightning, seen from the outside, becomes an unipolar resonator, which is capable to attract neutrinos and to go into resonance with them. Now the predominant part is converted into electrons, because also the air molecules and air ions in the lightning channel belong to the world of matter. But it can't be avoided that a small part of antiparticles is formed, which then annihilate with particles of matter under emission of radiation. Doing so photons are emitted and lightning glows, as anyone can see.

14.12 Ball-lightning

If in the case of lightning there still exist excuses, the difference of potential preferably is traced back to neither understandable nor measurable processes inside a cloud, then at the latest in the case of ball-lightning most experts are at their wits end. Only for very simple natures explanations circulate in the direction that here for instance the organic remnants of a bird struck by lightning are burnt off.

Actually ball-lightning is observed very seldom. It is a ball flashing with reddish till blue-white colour. Its diameter lies between 10 and 50 centimetres. The glowing phenomenon can last several seconds to minutes. Doing so ball-lightning rolls over a street, temporary floats in the air, goes apparently unhindered through every wall and disappears from time to time without a trace or discharges with loud moise and formation of sparks. Some stink of poisonous gases and some also cause noise.

Famous has gotten the ball-lightning, which 1753 of all people should have struck the lightning research scientist Professor Georg Wilhelm Richmann in St. Petersburg. In his laboratory during a thunderstorm a ball of fire as big as a fist should have jumped from a iron tube to his head and should have hunted him down, so eye witnesses have reported (fig. 14.12).

Since ball-lightning has a closed structure, it has to drag about its source of energy with it. If this however consists of organic or other matter, the ball wouldn't be able to float, after all the brightness of a spherical vortex and with that the need of energy is enormous! We have to proceed from the assumption that just ball-lightning covers its need of energy from free energy and serves itself from the neutrino field.

The spherical form is a consequence of the structure shaping property of the potential vortex ^{<ii>}. Scientists are increasingly interested in this not understood phenomenon. In their experiments they try to artificially produce ball-lightning with more or less great success in the laboratory. By means of the experiment they then want to learn to understand, what the textbooks don't give away.

If we want to learn of nature something about free energy, lightning in the laboratory offers us in the form of a blow or of a spark gap relatively good possibilities. It surely is no coincidence that the father of free energy, Nikola Tesla, in his experiments almost all the time has worked with spark gaps.

^{<ii>}: for that see in the 1st part the chapters 4.8 till 4.10

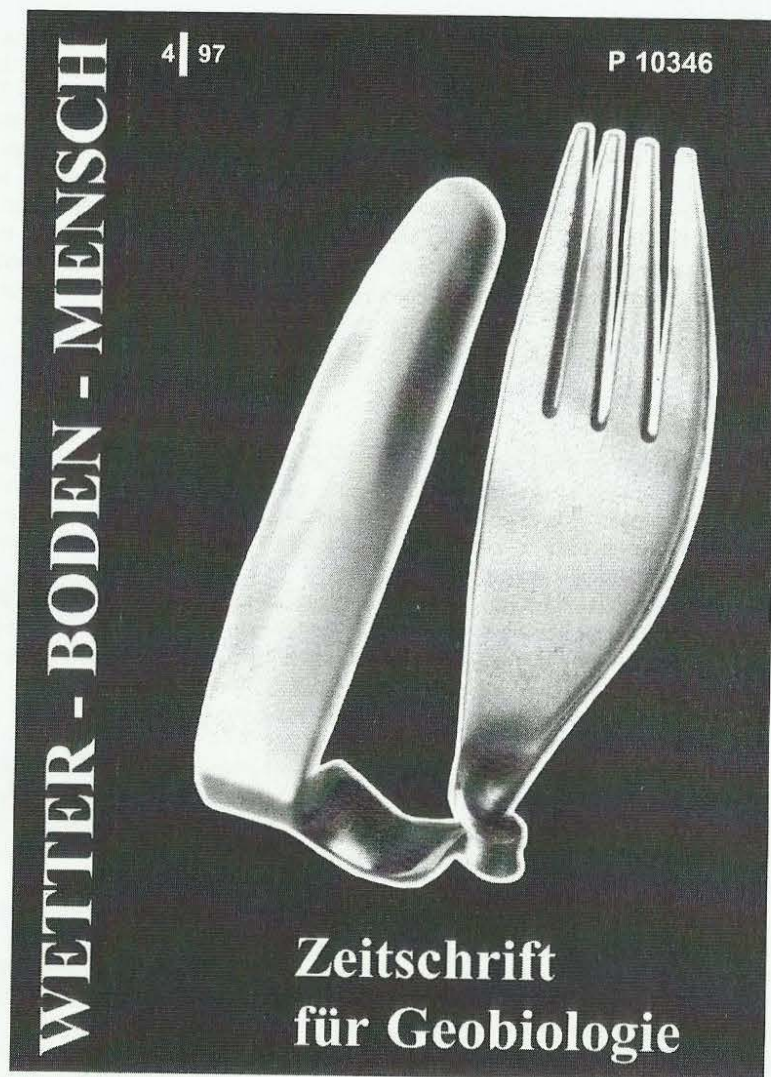


Fig. 14.13: Fork bent by „pure manual work“.^{<i>}

^{<i>}: Whoever has to eat with bent flatware in the Hotel Adler in Waldkatzenbach (Odenwald, Germany), mustn't believe that the food didn't taste well to some rude fellow here. It is the host himself, who in a sociable round shows his guests from time to time that he not only can cook well. I could personally convince myself from the fact that Robert Hartmann doesn't use any aids. The picture shows the title page of the magazine „Wetter Boden Mensch“ 4/97. A comment concerning this on page 3: Robert's 50th birthday.

14.13 Discussion concerning the neutrino conversion

In nature two different principles for the use of the neutrino radiation can be observed. In one case of use a glowing phenomenon occurs, in the other cases not.

The glowing lightning should be assigned to the first case. Here not only the neutrinos crossing the lightning channel are used, but also neutrinos from the environment oscillating in resonance are collected. Around the lightning channel a kind of reaction radius is formed, inside of which all synchronously oscillating neutrinos are attracted under the resonant interaction. During the discharge process the radius can increase like an avalanche, to collapse again with the transition into the stationary discharge current. A corresponding technical concept, which is discussed in the next chapter (15.5), is very efficient, but almost uncontrollable. A characteristic is the formation of antiparticles, of positrons, in the course of the materialization, which then annihilate under emission of radiation and cause a shining. Also spark gaps and fluorescent lamps possibly help themselves from the neutrino field, as still has to be worked out.

In the second case nature works without any avalanche effect and without any glowing phenomenon. To this counts for instance the photosynthesis or the mode of operation of the mitochondria, the energy centres of a cell. All cells, whether vegetable, animal or human, only use the neutrinos which just that moment pass by them and only in those amounts, as they just are needed. They thus handle their energy very caring. Without exception electrons are materialized and no positrons.

If nevertheless unwantedly an avalanche effect occurs, something which happens fortunately only very seldom, then a self-inflammation and self-burning occurs, then it should happen, that a person burns off himself^{<ii>}. This risk also is known of hay.

There also exist rare talented persons, who can control and regulate the process of materialization by concentration. These people can bend spoons or other metallic objects^{<i>}. For that they concentrate themselves some time and send the materialized charge carriers into the object, which they hold in their hands. Since the metal lattice solely is kept together by the enveloping electrons of the individual atoms, the additional electrons make the metal structure sodden. Now for a short moment the metal can be bent and distorted at will. Doing so neither heat is produced nor is the colour changed. The result of the process can be produced neither by cold working with raw force nor under a flue. Also here nature shows us a technology for an ecologically compatible metal processing (fig. 14.13).

The way from the conventional over the regenerative towards free energy is predrawn. It only has to be gone! After the existence of the neutrino radiation goes as proven and 1998 for the first time concrete amounts have been determined measuring technical and published by a Japanese team of research scientists, with that also the question for an energy technical use of the particle radiation has been answered clearly. Now only the question of the mechanics is open. The Japanese research scientists by the way have found out that at night only half as much solar neutrinos can be detected than at daytime. The other half according to that is absorbed in the inside of the earth. This in the meantime published measurement result in brilliant manner confirms the working hypothesis of a growing globe (chapter 11).

^{<ii>}: Zu Asche pulverisiert, Illustrierte Wissenschaft 6/1997, S. 61
acc. to an examination of the American SCI-COP in 1984.

cause/ field lines	interaction	F = force effect <u>mediation:</u>	see chapter: effect/ application
1. open H -field lines	magnetic (static)	F_{M0} = magnetic force (permanent magnet)	chapter 15.4 <i>E.-engine,</i> <i>solenoid</i>
2. open H -field lines	resonant (oscillating)	F_{MS} = magnetic force (AC-magnet)	15.4 + 15.5 - 15.7 lightning, <i>railgun</i>
3. open E -field lines	electric (static)	F_{E0} = Coulomb force <i>by charge carriers</i>	15.9 + 15.10 atomic bond, <i>Testatika</i>
4. open E -field lines	resonant (oscillating)	F_{ES} = Coulomb force <i>by neutrinos</i>	chapter 16 + 17 weak interact. galaxy bond <i>Tesla converter</i>
5. closed H -field lines	gravitation (static)	F_{MG} = gravity <i>by particles with mass</i>	chapter 6.9 + 7 elementary particle mass
6. closed H -field lines	levitation (dynamic)	F_{ML} = reduced gravity	chapter 18.3 gravit. waves <i>Casimir effect</i>
7. closed E -field lines	gravitation (static)	F_{EG} (force hardly detectable)	chapter 18.7 <i>superconducting ring</i>
8. closed E -field lines	levitation (dynamic)	F_{EL} (no longer detectable)	18.5 + 18.6 <i>Keely-/Searl- flying devices</i>

electromagnetic and resonant interaction	gravitation and levitation
$F_{M0} = 1,4 \cdot F_{MS} > F_{E0} = 1,4 \cdot F_{ES} \gg F_{MG} = 1,4 \cdot F_{ML} > F_{EG} = 1,4 \cdot F_{EL}$	
for reason of open field lines	resp. closed field lines

Table 15.1: The force effect of interactions,
ordered according to size, with examples

15. Principle of functioning of space energy

In this chapter we want to turn us towards the technical concepts and techniques concerning „space energy“, which occasionally here and there already should have existed or have been operated with quite different success. After Nikola Tesla having pointed the direction more than 100 years ago, the way towards free energy appears to be predrawn. Never before the public interest in the topic of space energy was as big as today. Unfortunately this concerns more the collecting and gathering of rumours and speculations. As in every branch of science also here **hunters and collectors** can be found. But obviously the hunters, the inventors and theorists have bigger problems, to put something useful on the table. They are fighting against their own not knowing, useless textbooks, general ignorance, intolerance and an all-powerful energy lobby. What the collectors on the other hand come up with does make appetite but not full.

An useful and efficient theory might be the most important prerequisite just with regard to the reproducibility of an effect and the product liability of a SET-device. That's why one mustn't expect a complete list of devices of that kind in this chapter, because in the foreground stand the physical and technical explanations concerning the way of functioning, the understanding for constructive and guiding details and the learning from the mistakes and errors of the inventor.

For a better survey the possible courses of the field lines according to the theory of objectivity are listed in detail (table 15.1) and discussed from the top one after another, starting with the strongest known interaction. To complete examples and concepts are presented.

As is well-known there exist electric (**E**-) and magnetic (**H**-) field lines. Further exist open and closed field lines and finally is distinguished between the oscillating and the static case. The results are two to the third power, thus eight possibilities of combination in total. In table 15.1 all eight versions are given, even if one or another case is of more theoretical nature. For the objective of a systematizing of different concepts concerning space energy technology the taking apart in any case is helpful. The figure opposite is survey and structure at the same time for the following chapters.

15.1 The course of the field lines

In chapter 6 a relation between the course of the field of a body and its observable interaction has been made (part 1, chapter 6.7 till 6.9). Here a point of approach is offered. For instance to maximize the force effect a magnet or to optimise an electric motor, the engineers nowadays help themselves with costly programs working according to the method of finite elements. In this way they obtain a picture of the field lines, the course of which makes possible conclusions concerning the production of force or torque.

The relation without doubt is given, the only question is in which order of magnitude.

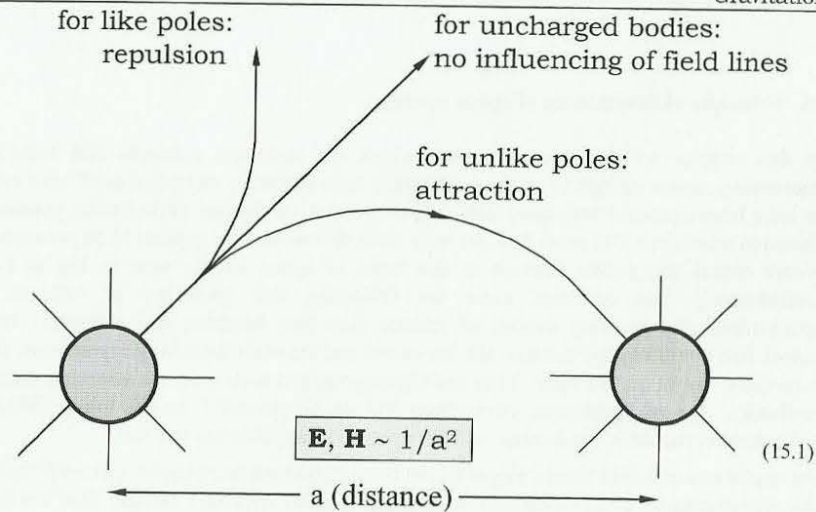
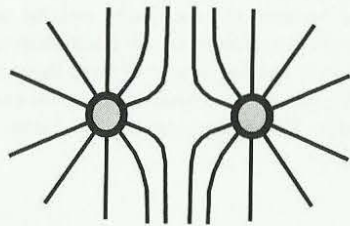


Fig. 15.2 A: The course of the field lines leads to a force effect (repulsion or attraction)

repulsion
like poles



attraction
unlike poles

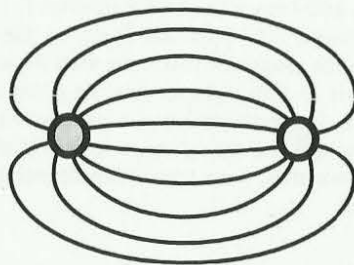


Fig. 15.2 B: The course of open field lines

$\frac{F_{\text{Coulomb force}}}{F_{\text{magnetic force}}} = \frac{Q \cdot E}{\phi \cdot H} = \frac{\mu \cdot Q^2}{\epsilon \cdot \phi^2}$	with	$E = Q / \epsilon \cdot A$	(15.2)
	and	$H = \phi / \mu \cdot A$	
i.e. e:	where	$\phi^2 = m^2 \cdot G \cdot 4\pi \cdot \mu$ (Gl.13.20)	
$\frac{F_{\text{el}}}{F_{\text{magn}}} = \frac{e^2}{\epsilon \cdot m_e^2 \cdot G \cdot 4\pi} = 4,2 \cdot 10^{42}$			(15.3)

Fig. 15.2 C: The proportion of forces at the example of the electron.

The theory of objectivity answers the question from the equations of transformation with the proportion 13.23 (fig. 13.4). According to that the electric or the magnetic field strength stand in inverse proportion to the square of a length or of a distance:

$$\mathbf{E}, \mathbf{H} \sim 1/a^2 \quad (13.23) \text{ resp. } (15.1)$$

Less mathematically expressed this, for two bodies in the distance a , where one body is situated in the field of the other, means nothing else as that the distance is reduced. Nearer to the body the density of the field lines again increases, in that way the distance further decreases and we observe an approximation.

Usually the idea of force is introduced as a factor of description and there is spoken of a force of attraction. But that not necessarily is required, because the force only represents an auxiliary description. The cause for the observed attraction rather is the spatial distribution of the field strength.

In this case the two bodies come closer and the mutually active fields get bigger and bigger, until the parts eventually run into each other (fig. 6.7 A). There one comes the thought to increase the force of attraction by an artificial compression of the field lines. In the case of the electromagnetic interaction such a compression actually takes place, since the field lines arise from one pole and end at an unlikely charged pole, which so to speak collects and bundles up the field lines (fig. 6.8 A).

At last we find out the reason, why electromagnetic forces of attraction are bigger than gravitational forces for many powers of ten (between 10^{30} and $4,2 \cdot 10^{42}$ for the electron, derivation see fig. 15.2 C). For table 15.1 this means, at the top have to stand the open field lines, which bundle up at the poles. Then very long nothing comes and after that the effects of closed field lines are being found.

For *open field lines* however also the opposite of a bundling up is possible. In the case of like poles the fields run away of the other pole (fig. 6.8 B). Between both a space is formed, which is free of field lines, where thus the field tends towards zero, whereas the distance between the poles according to the proportion 15.1 grows towards infinity. In this case we observe, how the bodies are going away from each other. We speak of a force of repulsion, which actually reaches until infinity. This gives reasons for the occurring of both forces of attraction and forces of repulsion in the case of the electromagnetic interaction.

15.2 Gravitation

In the case of *closed field lines* in principle no repulsion can occur, since no pole, neither north pole nor south pole, neither positive pole nor negative pole is able to influence the position of such a field line. This circumstance as well as the order of magnitude of a possible force of attraction suggest, to settle gravitation here.

It gladly is forgotten, that the field pointers of E- and H-field normally occur together and like in the case of the electromagnetic wave stand perpendicular to each other. It is normal to calculate only the electric field pointers for a charge carrier, without paying attention to the circumstance that the H-field is present as well. The textbooks as a rule remain silent about this dark chapter or they lapidary remark, the dual field lines are closed in themselves and hence inactive anyhow, which however is incorrect.

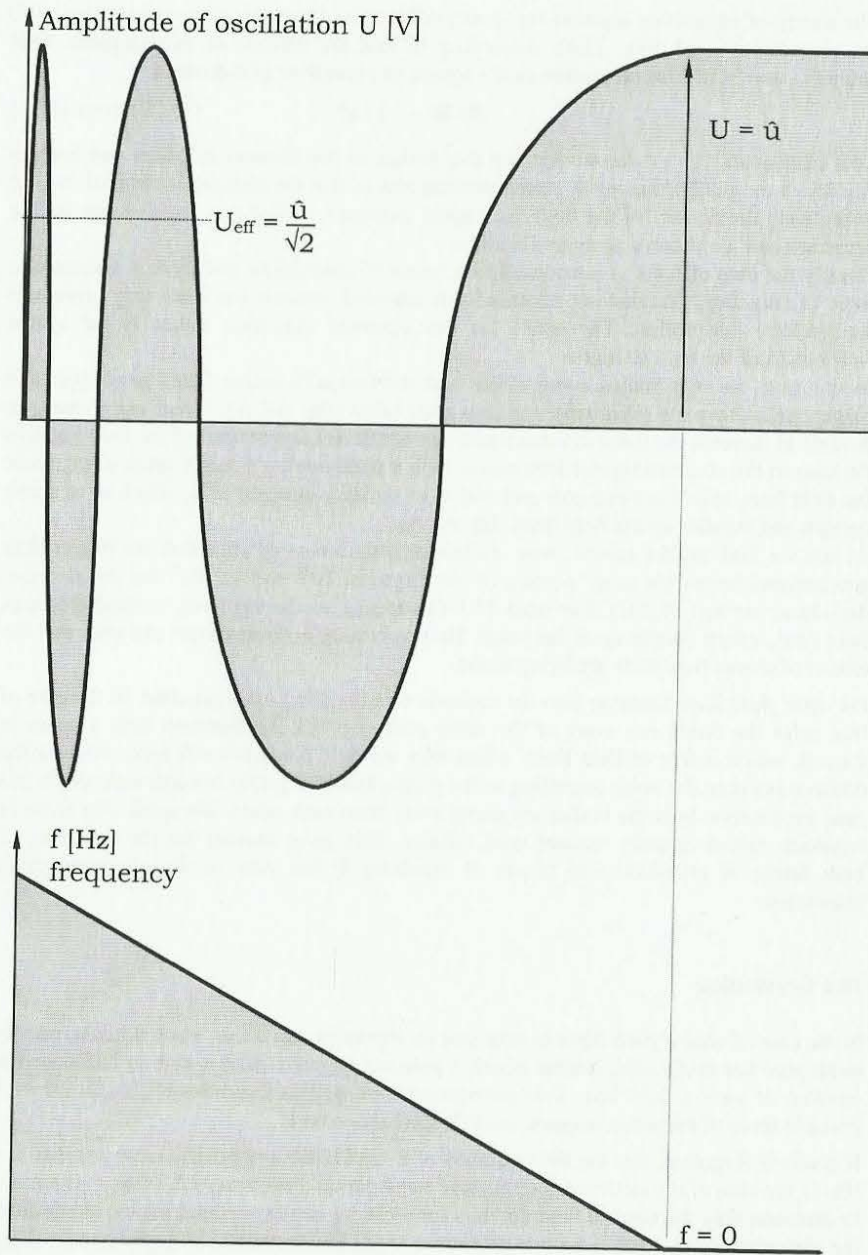


Fig. 15.3: The transition of an oscillating into a static interaction

But, according to the proportion 15.1, they actually develop a force of attraction, even if this is relatively small. No one really needs to be surprised that gravitation is not understood until today, if a whole group of fields simply is overlooked by science.

We now also can explain, why there don't exist any massless charge carriers. Namely only the E-field or the H-field can form open field lines and never both at the same time. Otherwise they wouldn't be able to stand perpendicular to each other anymore. The each time other field, in the case of electrically charged bodies it is the H-field, then is wrapped perpendicularly around the E-field lines, independent of the circumstance if electrically an attraction or a repulsion occurs and without exception it forms a weak force of attraction, the gravitation.

15.3 Systematizing the interactions

Next we should know, from which field is to be expected a larger force effect: from the E or from the H-field? At the example of an electromechanical converter this question can be answered concretely.

The forces which occur and form the torque in an electric motor customary in trade are produced by magnetic poles in stator and rotor, which repel each other in the case of like charge and attract each other in the case of unlike charge. Now there in principle exists the possibility to build a motor which works with Coulomb forces, thus with positive and negative poles, instead of the magnetic forces. About such designs numerous patent specifications exist, but no customary version on the market.

The reason very simple is that a magnetic motor for the same torque is many times smaller and better priced. From this the conclusion can be drawn that for the same construction volume a magnetic force F_M is considerably larger than a Coulomb force F_E , which for instance binds together atomic nucleus and atomic hull.

Thus in table 15.1 the magnetic forces are ranked before the Coulomb forces.

Finally we have to distinguish between the static and the oscillating case, which are distinguished in the frequency. In fig. 15.3 an oscillation is shown, which by chance just at the moment of the vertex value changes into the steady state, thus takes the frequency zero. In this case the effective values between a static and a sinusoidal oscillating interaction are distinguished by the factor $\sqrt{2} = 1.4$.

If we operate an universal motor with direct current, then it releases more power, than for a corresponding feeding with alternating current. Even a high-tension line, which stands at maximum 511 kV, is operated with alternating current up to 380 kV, with direct current on the other hand up to 500 kV. Consequently in table 15.1 the static interactions stand before the oscillating interactions.

The strong interaction naturally isn't found in the list, after it has been derived that it doesn't exist at all (see chapter 7.8), whereas the weak interaction is hiding behind the oscillating interaction. It shakes other particles so long till they fall apart (see chapter 7.13).

We now would be as far, to discuss the 8 cases listed in table 15.1 one after another by means of practical examples.

The principle of the side-pole machine

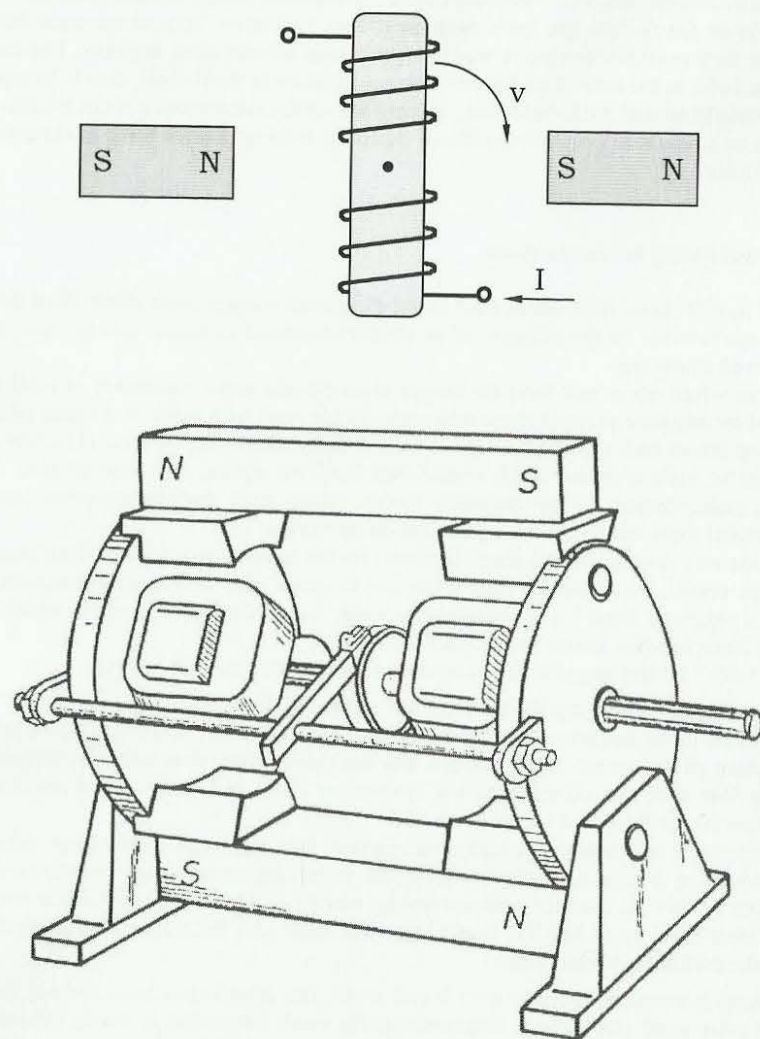


Fig. 15.4: Alternating current dynamo, according to the inventor (Kromrey) a magnetic converter for free energy with a degree of effectiveness of more than 100 %.

15.4 Magnetic force converter

As a result of the systematizing of all eight possible interactions, the largest force effects are to be expected as a result of static and of open magnetic field lines.

It is questionable, if this statement is generally valid and is true everywhere in space. But it is valid at least for a terrestrial laboratory and only here, on earth, a solution for the energy problem is strived for. No wonder therefore, if the electric energy technology nearly without exception is using these force effects. We find them at a solenoid, at a relay coil, at a magnetic tuning cylinder and equally between the stator field and rotor field of an electric motor.

The motor however takes a special position, because its rotor is turning. In that way a switching of the winding and commutating of the currents is necessary or the field of the stator winding is being turned, for instance in the case of an alternating current motor. This is necessary, so that in the air split of the motor the fields from the stator and rotor always are standing opposite like for the solenoid and a driving force can be formed.

For the operation therefore oscillating currents are necessary, so-called alternating currents, which are fed in into the winding with the right frequency and phase. There can be spoken of an operation in resonance. It surely is no coincidence, that Nikola Tesla, the founder of the rotary field theory and inventor of the alternating current motors at the same time is the discoverer of the neutrino radiation.

The electric motor slides already into the second column from the top in table 15.1, as we see, and should be assigned to the case of the oscillating interaction of open magnetic fields. The frequency for motors usually is very small.

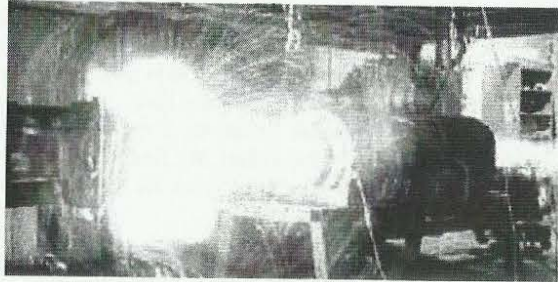
But also at high frequencies there can't be reckoned on some free energy which would show or even be utilizable, as can be heard from the inventors who tinker with magnets, mostly with permanent magnets (Fig. 15.4). The reason very simple is that there exist no physical particles, which could mediate this interaction. Magnetic monopoles would be necessary, thus north pole or south pole particles, so that an interaction with the open H-field lines can occur.

Such particles could form as a result of currents and eddy currents, but for that a good conductivity would be necessary and that isn't present in the vacuum. Therefore magnetic monopoles can't exist at all! This point we already had worked out (fig. 4.4, question I). The same statement then also applies to the oscillating case.

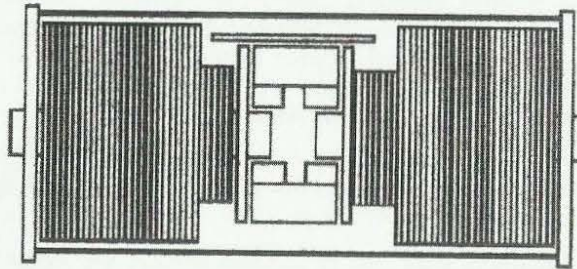
If nevertheless something like free energy should show in the case of some magnetic field converters, then unnoticed by the inventor still other physical effects are added. By means of concrete concepts this circumstance can be studied and discussed.

The meanwhile well-known railgun is a corresponding example, for which besides the used magnetic force unintentionally a further principle is used. A more detailed occupation with this device is worthwhile, because here some fundamental concepts of space energy get clear.

A: Shining railgun in action<i>



B: Structure<i>



C: Concerning the way of functioning of the railgun

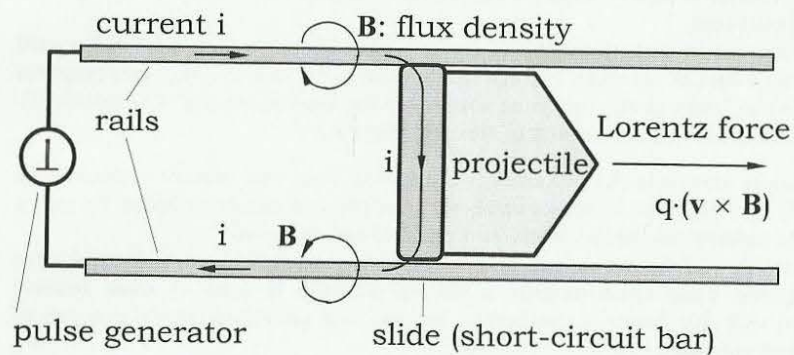


Fig. 15.5: Structure and way of functioning of the railgun

<i>: in the internet under: www.glubco.com/weaponry/railgun.htm

15.5 The railgun

The engineers and physicists involved in the SDI-project were quite astonished, as they had a close look at the bent rails of their gun. During the test operation the equipment was really flying around their heads.

They were very sure to only have fed in 16.7 MJ of energy, from the rotation of a homopolar generator, because more was not available for the experiment by any means. The projectile with mass $m_0 = 0.317$ kg lying on the rails thereby should have been accelerated to the velocity of 4200 m/s. Instead huge forces were at work here, which the construction couldn't counteract at all. There is talk about the released energy having amounted to 399 GJ, what corresponds to an over-unity effect of 24000<sup>ii>. This factor describes the proportion of the released to the taken up power or energy.

If these details should be correct then this would be the most efficient converter for free energy, which has been developed until now.

Behind the project name SDI (Strategic Defence Initiative) is hiding the by the United States prepared "Star wars". But how one fares a war, which nobody can pay anymore and no-one wants, entirely according to the motto: There is a war and no-one goes there? This war undoubtedly the strategists and initiators themselves have lost, who even had to watch, how their space gun appears in the internet with design drawings and rich visual material to be called by anyone<sup>ii>.

Today, where we are surrounded by nothing but friends, where in Russia and at other potential opponents is fought more against internal problems and one lets the expensive space toy rot for lack of money, the coat of the military secrecy obviously no longer can be held over such an explosive project as the railgun.

Thus informative details have reached the public. In the pictures a bright lightning can be seen at the moment of launching (fig. 15.5 A). Here presumably is being materialized, in which the part of anti-matter annihilates with the particles of matter under emission of light. There thus takes place the same process as in the case of lightning or the shining of the sun.

In addition is being reported that heat energy is withdrawn from the environment, a circumstance, which is typical for all functioning converters for space energy. We thereby are reminded of the possible formation of ice in a lightning channel.

Like for a lightning also the railgun is stimulated with a very high excitation voltage and with extreme speeds of change of the tension voltage (high du/dt) (fig. 15.5 C). From the setup it concerns a bridge of Ampère, which in various respects appears to be superior to the rocket engines, after the costly transport of the propellant into space isn't necessary, since the capacitor batteries can be recharged by solar power.

<i>: e.g.: www.glubco.com/weaponry/railgun.htm

<sup>ii>: Goleczki, G., P. Marquardt: Requiem für die Relativität, Verlag Haag + Herchen (1997), S. 139

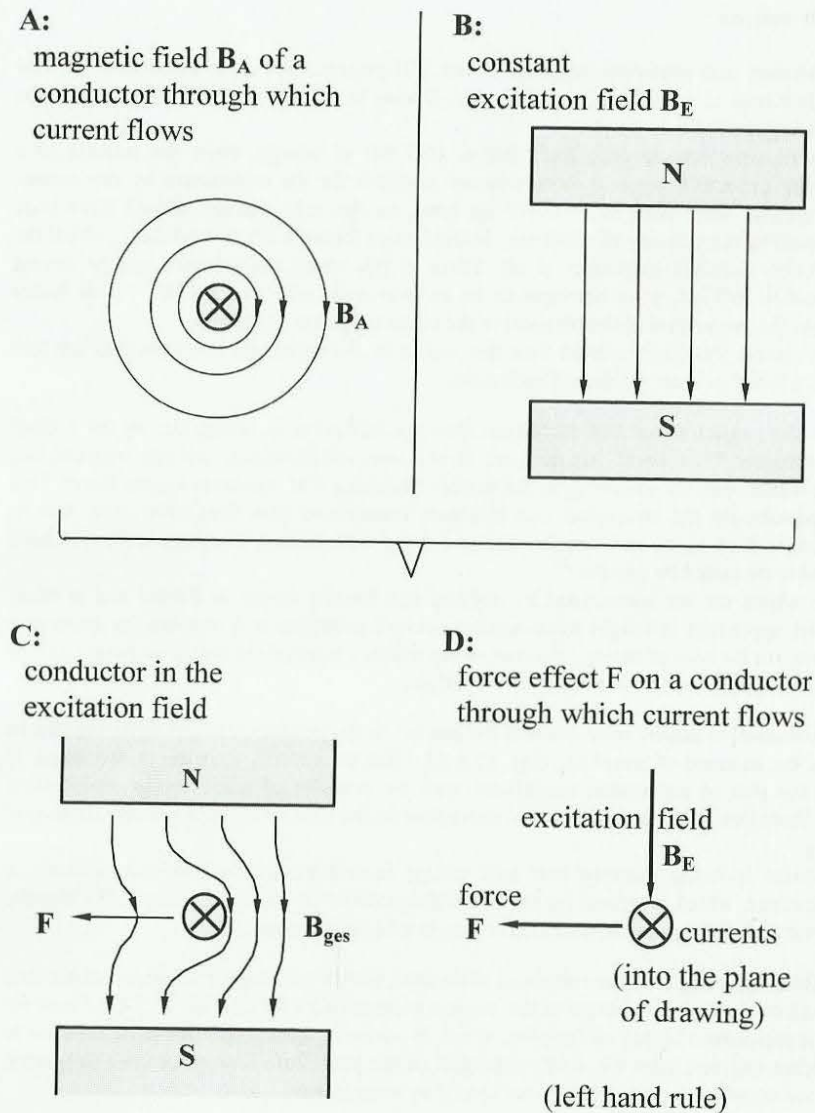


Fig. 15.6: The distribution of field lines and force effect on the slider of the railgun through which current flows in a permanent magnetic field

The projectile has the form and the function of a short-circuit bar and is guided slidable between both rails of the railgun. The high-tension capacitors are switched on both rails at the moment of launching, so that in a very short time an extremely high short-circuit current of several thousands of Ampère flows through the bar.

Since the bar in addition is situated in a static magnetic field, there acts an accelerating force on it (fig. 15.6 D). It is the force effect of a conductor through which flows a current in a magnetic field, like it is active in every electric motor. If we overlap the fields of the conductor (fig. 15.6 A) and of the magnetic field (15.6 B), then we observe a bending and lengthening of the field lines (15.6 C). There exists the effort to re-establish the original state, which represents the smallest magnetic resistance, and for that the conductor is shifted out by means of the arising force. In the sketch it is accelerated to the left.

That far the explanation concerning the bridge of Ampère. That has nothing to do with free energy. For the enormous degree of effectiveness, as it has been determined, further effects have to be added.

15.6 Unipolar induction

The projectile, or from the function let us rather speak of the short-circuit bar or the *slider*, at first is entirely conventionally accelerated and experiences, mathematically expressed, a $d\mathbf{v}/dt$. The magnetic field \mathbf{B} stretching perpendicular to the movement is constant, so that according to the Faraday relation $\mathbf{E} = \mathbf{v} \times \mathbf{B}$ from the velocity \mathbf{v} an electric field strength \mathbf{E} results and from the acceleration $d\mathbf{v}/dt$ a field change $d\mathbf{E}/dt$.

These open field lines along the length of the slider, in particular the oscillating part, appears to interact with oscillating particles and to collect these particles^{<i>}. It concerns presumably neutrinos, which primarily materialize in charge carriers. These contribute to the current flux in the slider and to the acceleration, whereupon still more neutrinos are collected.

A hardly controllable avalanche effect is formed. Only if the change in tension voltage has worn off and the capacitor is completely discharged, also the resonant interaction will again collapse.

The inventors, who want to construct a civil version of the railgun, is given a warning on the way which should be taken seriously. At first it doesn't take particularly much imagination to imagine a rotating arrangement of the gun, a construction with one axis, whith which a generator driven, which produces power. A small part is supplied the system again as supply for itself. The rest would be available free to the consumers as non-polluting, regenerative energy.

That really sounds good, if there wouldn't be this one obstacle.

<i>: The equation of transformation concerning the unipolar induction already was treated more detailed in chapters 6.4 and 9.3

<ii>: It is the resonant interaction according to table 15.1, line four

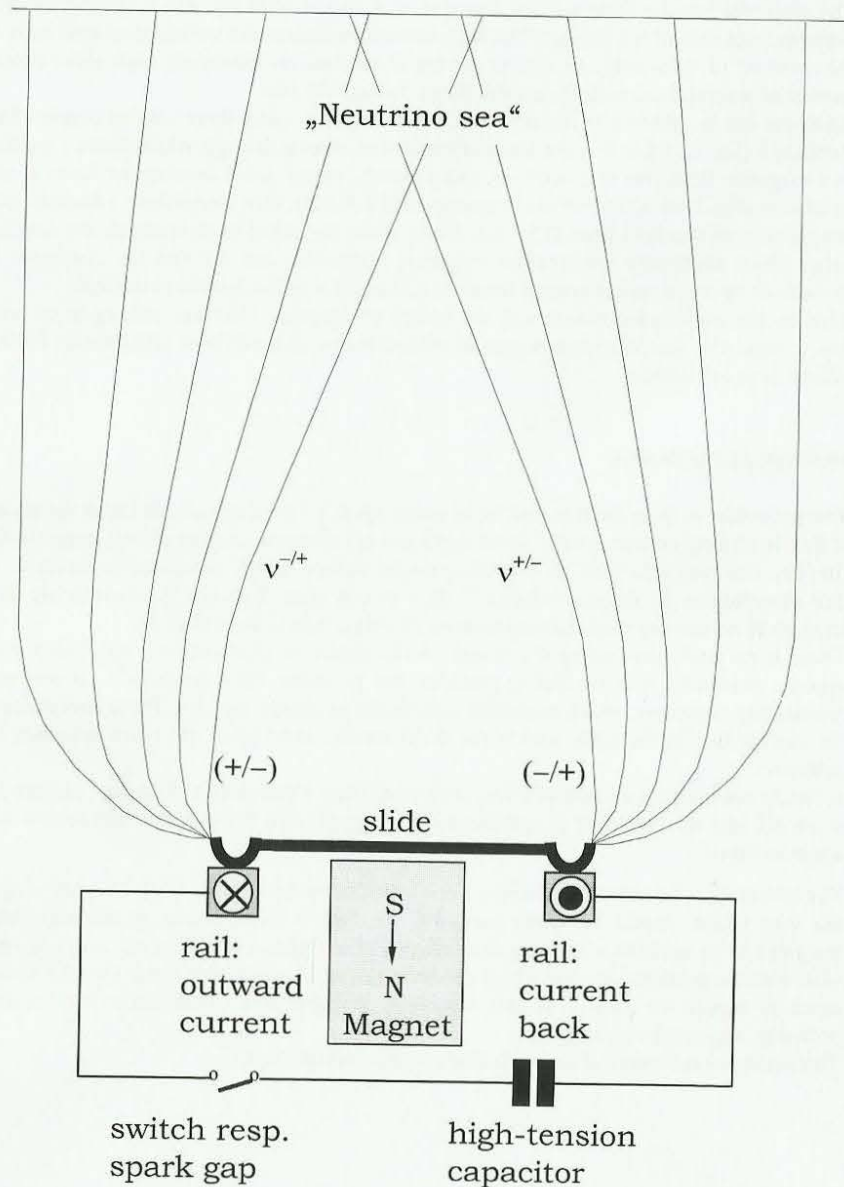


Fig.15.7: The collecting of neutrinos by oscillating open field lines

15.7 Tendency to instability

In a continuously working machine the discharging of the capacitor cannot remain a single event as in the case of the gun. The discharging and the recharging has to take place cyclic depending on the revolutions per minute. To obtain a rotating movement even to a certain extent ignition has to follow ignition. But if the new ignition takes place, although the avalanche effect of the last one still hasn't worn off, then inevitable a catastrophe will occur, then the work of wonder is taken apart under the eyes of its creator.

Numerous inventors already have had to collect such painful experiences. It is assumed that not even Nikola Tesla had escaped, as he had to put away again his stately luxury car with electric motor and energy converter in a barn near Buffalo already after one week of test operation in the year 1931^{<i>}.

Of course also for this problem solutions in accordance with engineering are offered. Meaningful would be a restriction of the revolutions per minute and a power regulation. Only most inventors don't think that far. On the one hand, because they handicraft without an useful physical model and on the other hand they think they already have reached the goal, if they observe something like free energy for the first time. Just as fast as the joy then the disillusionment comes, because a converter which doesn't work, is not able to convince anyone.

Tesla already was aware of this set of difficulties. He fastened his converter to the dashboard and not in the engine compartment, presumably to adjust the coupling of the coils from the drivers seat during the drive by means of two metallic rods, which he pushed into the case. But sometime even this regulation by hand has to go wrong, because the collected neutrinos on their part collect further neutrinos (fig. 15.7), so that in the case of an unfavourable order of ignition an additional amplification is possible. For a reliable operation according to that directly or indirectly the phase of the ignitions to each other should be checked.

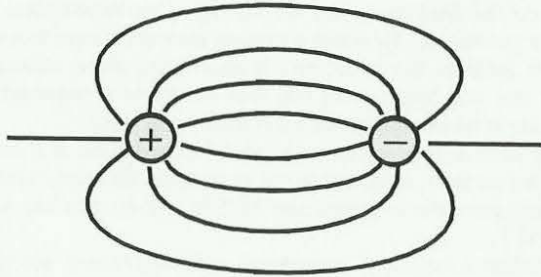
At the example of the railgun space energy technologists and inventors can study the relations and the way of functioning very concretely and even calculate these relatively simple. It is a big relief, that all three vectors stand perpendicular to each other: the **E**-field, the **B**-field and the velocity **v**. Ideal conditions both with regard to a maximizing of the wanted accelerating force and for the resonant interaction, increase at the same time the collecting of space quanta, which probably may be set equal to the neutrinos.

This is made possible by the **Faraday's law** of unipolar induction. In that way at the right and left end of the slider a positive a negative pole each are formed. The further the two poles are away of each other, the more the field lines are opened and the more neutrinos can go into resonance. In this place still considerable improvements and optimisations are possible.

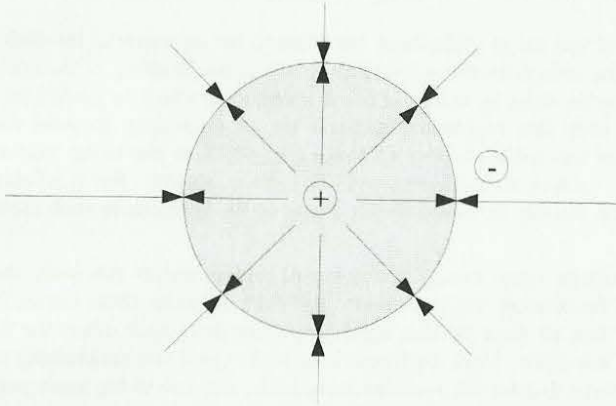
In addition to the two discussed the phenomenon of the **electrostriction** is added as a third phenomenon, which authoritatively contributes to the conversion of neutrinos into electrons. It is a field dependent change of length, which in the case of lightning takes care of the thunder and in both cases, therefore also here, is active as a charge carrier producer.

<i>: see also chapter 9.5 Free energy,
A. Schneider: Energien aus dem Kosmos, Jupiter-Verlag 1989, Kap.11, S. 20
and H. Nieper: Revolution, MIT-Verlag 1981, S. 194

A: electric dipole (e.g. electrostatics, see also fig. 6.8)



B: electric monopole (e.g. electron e^- , see also fig. 4.3)



C: Mixed form in the case of cylindrical symmetry

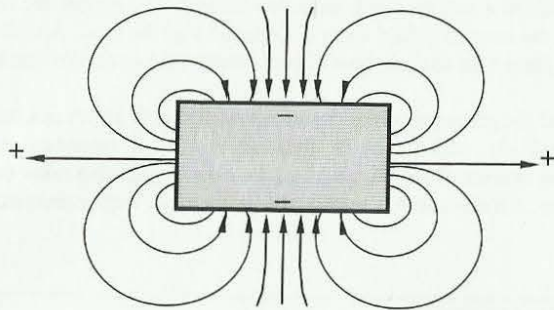


Fig. 15.8: Dipole fields with unipolar parts

15.8 Unipolar field configuration

If we again go back to fig. 5.1 and continue our considerations with examples concerning line 3. The obtainable force effect of open electric fields indeed is for powers of ten smaller than that of magnetic fields, but then particles are mediated, an invaluable advantage and an indispensable prerequisite with regard to the generation of space energy. As long as the particles are considered in the balance sheet of energy then in addition by no means can be claimed, space energy converter are perpetuum mobiles.

In the question, why only electric particles can be mediated, has to be pointed to the repeatedly mentioned circumstance that only electric particles can be formed as a result of the concentration effect of potential vortices. Magnetic particles however plain and simple cannot exist, since for missing conductivity in the vacuum no eddy currents are possible (see fig. 4.4).

In the case of the arising Coulomb forces again is distinguished between the static and the oscillating case. We want to start with electrostatics.

The range of technical applications of static electricity is large. It stretches from varnishing technologies and filter technologies till the fly grill in the arbour. In all cases the field is built up by charge separation. By means of a high-tension generator a positive pole and a negative pole are produced, between which the field is stretching. The field lines now start at one pole and end at the other, unlike pole (fig. 15.8 A).

In this manner almost no open field lines are available, which point to the outside and could interrelate with free particles. If one for instance intends to attract and collect charged particles from the solar wind, from the cosmic radiation or from the electricity of the air, then the design in one point has to be changed fundamentally.

A unipolar field configuration is necessary. What is meant with that, answers a glance at the spherical vortex model of the electron (fig. 15.8 B resp. fig. 6.2). Here it as well concerns a formation of dipoles as a result of the charge separation, but one pole is hiding in the inside of the other pole. In that way its field lines are captured and don't have a chance anymore to come out, to reach the other pole.

But if the pole lying on the outside for its part can't close its field lines any longer, then these point helpless into space and search in their neighbourhood, in the distant world and if need be even in the infinity of the universe an unlike anti-pole, which as a result interacts and is attracted.

The measuring technician analyses these open field lines and falsely calls the construction then a monopole, only because he isn't able to reach the locked up pole. To blame is the unipolar field configuration, which with that probably would be explained to a certain extent.

The designer and inventor as well might have realized how he has to construct his device, with which he generates open field lines to collect space quanta. He has to lock in one of the two poles as good as possible. Optimal would be of course a spherical symmetric construction like in the case of the elementary vortex. Compared with that a cylindrical symmetry indeed is suited far less good, but it offers constructive advantages (fig. 15.8 C). We now will report of such a functioning device.

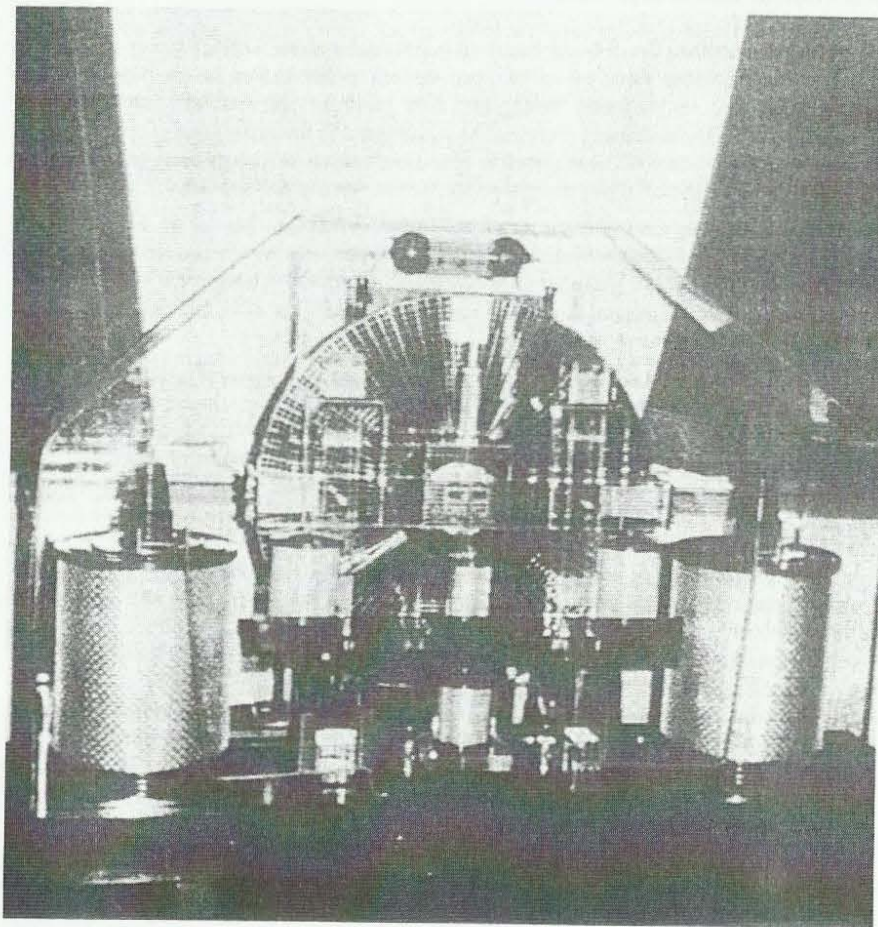


Fig. 15.9: Demonstration converter „Testatika“.

- <i>: A. Schneider: Energien aus dem Kosmos, Jupiter-Verlag 1989, S. 29,
 I. Schneider: Neue Technologien zur Freien Energie, Jupiter-Verl. 1994, p.13
 and in the NET-Journal, Heft 8/9, 1997, S. 16 as well as iss. 12, 1997, p. 6.
 D. Kelly: Der Schweizer ML-Konverter, Raum & Zeit Special 7, S. 164

15.9 The Testatika

An electrostatic device, which produces open electric field lines, is situated in Linden in Switzerland. It optically is very imposing and belongs to a religious community, which has called it Testatika and is of the opinion that it is a free energy converter.

Inexplicably the Testatika does not serve the community, which generates their electric power conventionally and to a large extent by itself, as a source of energy. Instead the 2 kW device only very seldom is demonstrated for special occasions or to select groups of visitors. The religious community after that explains the astonished observers humanity not yet is mature for the technology.

Perhaps just the opposite is correct and the technology not yet is mature. According to my personal assessment such an electrostatic device in principle is entirely unsuitable for the continuous operation.

It can be expected that the open field lines sooner or later will interrelate with the electricity of the air and thunderstorms are being attracted by the infernal machine so long until lightning strikes and the demonstration with that has finished. That's why the Testatika may be switched on only for a short time, only at sure weather situation and not too humid air, and many a registered visitor has been sent away without having seen the „thunderstorm machine“.

As an object of demonstration and study the Testatika however is well suited. Alone the circumstance that no cable leads to the device and it nevertheless releases energy in the order of magnitude of 1 till 2 kW, surprises all visitors. At least the impression is mediated as if the machine would violate the law of conservation of energy, which is not correct.

The Testatika is similar to an induction machine, which works with friction electricity. Thereby the unlikely charged bodies do not have to unconditionally touch and rub at each other, it already is sufficient, if they are brought in the immediate vicinity of each other. In the case of the Testatika the electrostatics of two against one another rotating discs is taken off by brushes.

The excitation energy presumably is taken out of the natural E-field, which just like that can amount to 200 Volts per meter (see chapter 2.9). The large diameter of 80 cm of the discs and their bad conductivity (acrylic glass) permit this conclusion. The charge taken off by the brushes afterwards is temporarily stored in two capacitors of 2 Farad at 300 Volt, so-called Leyden jars. This far one actually is reminded of a Wimhurst generator, in which the energy is supplied the system by turning the disc. Large powers cannot be drawn by that. Plans to build such an induction machine by yourself have been published<i>.

In the case of the Testatika however two discs are used and by hand stimulate to rotate oppositely. This rotational energy in this case isn't used to produce power, otherwise the discs quickly would stand still again, but that doesn't happen.

Until now apparently no-one has discovered the secret, which is kept strict by the members of the community. In my opinion the energy situation on our earth however is too serious, as that we would be able to afford playing hide-and-seek and egoistical secretiveness.

- <i>: I. Schneider: Neue Technologien zur Freien Energie, Jupiter-Verl. 1994, S.14

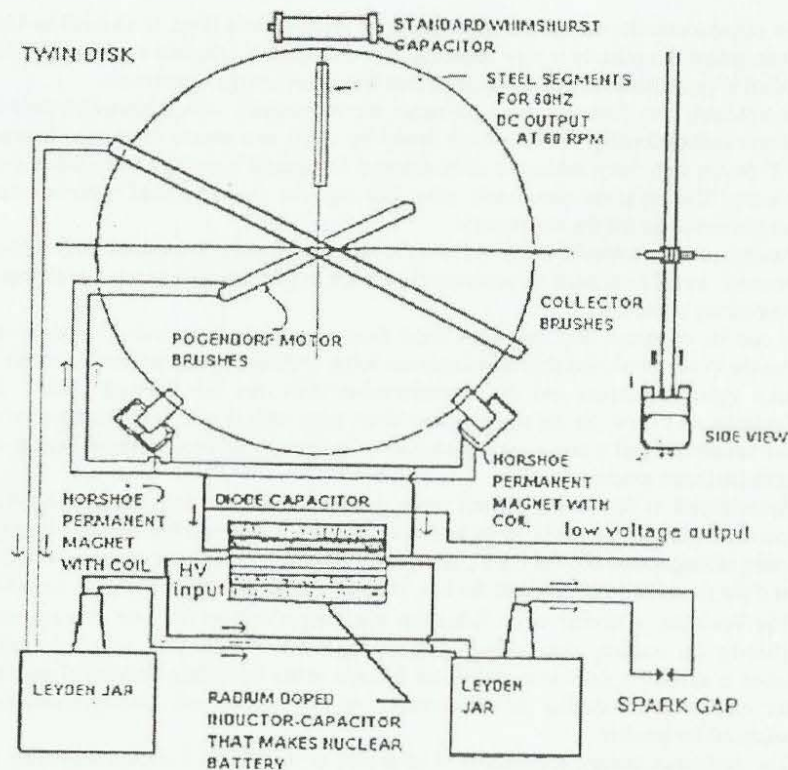


Fig. 15.10: Sectional drawing of the Testatika according to Don Kelly, (Clearwater, Florida, USA)

15.10 The secret of the Testatika

The crucial point is the opposite direction of rotation of both discs. If we assume the static earth electric field is the cause and serves as an excitation field, then as an effect a field arises, which stands perpendicular to that. The axial component now points out of the centre of the disc.

In the case of only one disc the field lines in front and behind the disc again are closed, so that no open lines can form. With one disc or with two discs rotating in the same direction hence no unknown charges can be attracted.

In the case of *two oppositely rotating discs* however shows one component along the axis of rotation to the observer, that of the other disc exactly in the opposite direction. In that way between both discs a pole is „pinned“, which no longer is able to close all field lines on the outside around the machine. Thus open field lines and a, however incomplete, *unipolar arrangement* are formed.

The charge carriers sucked from the electricity of the air as a result support the natural electrostatics and speedy recharge the capacitors, even if up to 10 Ampères are taken out by the consumers.

The ingenious thing of the machine is its extremely simple construction and the simple concept.

If one includes the collected particles also in the balance sheet of energy, then it thus will turn out that the law of conservation of energy is not violated at all. There thus can't be talked of free energy. In this context the Testatika may rather be given as a counterexample. *Air ions are the carriers of the electricity of the air* and not carriers of free energy.

Negative air ions are indispensable for our welfare. One should only remember the first men in space, who after the landing were pulled out of their capsule more dead than alive, after they had to stay in the unhealthy atmosphere of the capsule for a longer period of time. Only the installation of ionising devices for negative air ions made possible longer staying in space.

The taking out of the air of negative ions hence is not unproblematic and not particularly ecologically compatible. An atmosphere harmful to life is formed which Dr. Wilhelm Reich has called DOR-state. He by the way has designed a *Cloud-Buster*, with which he could take static electricity, forming above the desert sand, out of the air. In that way the negatively charged rain clouds no longer are repelled and driven away. Reich has tested his weather machine 1954 in the desert of Arizona. After he had freed the atmosphere of the „DOR-strain“, as he expressed himself, in the desert area the atmospheric humidity steadily increased from 15% up to 95%, there grew prairie grass and everything started to turn green, and eventually after many years for the first time rain fell again.

Static electricity, as far as the right polarity is chosen, may conditionally be used for the mechanics of rain making. For free energy concepts it however isn't suitable. Already Nikola Tesla has pointed to the circumstance that our hopes will be in vain if the free energy would be of static nature (see fig. 9.5). He in his speech, which he gave 1891 before the AIEE, has left no doubt that free energy exists, which is kinetic and with that energy technically usable for us.

Chapter 16 will be occupied solely with this case^{<i>}.

<i>: Der Testatika generator, NET-Journal, Dezember 1997, page 6
similar picture is found in Raum & Zeit Spezial 7, page 164

<i>: according to point 4 in table 15.1



Fig. 15.11: The Cloud-Buster of Dr. Wilhelm Reich 1954. ^{<i>}

^{<i>}: H.-P. Thietz: Tatort Erde, VAP (1996), ISBN 3-922367-62-3, page 122

^{<ii>}: Part 1, fig. 9.3; concerning the unipolar induction see also fig. 6.5 and 11.8

Fig. 15.11 shows the weather machine of Reich, the Cloud-Buster. It can be understood only hard, why Reich directs a 3-4 m long metallic pipe with a diameter of 4 cm to the sky and connects the rear end with a deep well or with flowing waters. The effect should have been increased considerably with a few milligrams of radium. An indication that he must have worked with static electricity, delivers however a tragic accident, in which one of his collaborators was lamed on one side. He carelessly had touched the charged apparatus and suffered an electric shock ^{<i>}.

15.11 The key to free energy

As a contribution to the discussion the individual principles of functioning of space energy again are collected and the attempt is undertaken to value them.

In the case of an oscillating dipole configuration, for instance the railgun, open field lines are present only along the mutual line of connection (fig. 15.8 A). With that not particularly many space quanta can be reached. It hence has to be operated with gigantic excitation powers in the range of many thousands of Ampère, so that further field lines fling open and interact. The wanted over-unity effect therefore can only be reached at an enormous expense of technical apparatus.

An unipolar arrangement here is considerably more advantageous, where holds: the more unipolar, the fewer excitation power is required. But in that way it can take longer until the collecting of neutrinos like an avalanche again has worn off. In the case of an ideal spherical arrangement (fig. 15.8 B), as the ball-lightning takes, the process can even last for minutes. This explains why unipolar systems can be kept under control only very hard. If the neutrino avalanche is rolling then it purely theoretical only can be stopped with a still larger excitation power, for instance by phase shifting, what can hardly be realized in practice. The rolling avalanche can't be stopped anymore by normal means. A synchronous operation between the neutrino oscillation and the converter can, apart from the technologically hardly realizable high frequency, by no means really be recommended. As a rule one single steep flank of the change of the excitation voltage is sufficient to start the avalanche. By means of the repetition frequency or by means of the duty cycle of the excitation voltage then resonances to the neutrino field can be made or avoided. On the other hand can't be done without the avalanche effect. The utilisable power of the neutrino converter otherwise would be much too small. This case should be pursued further in the design of a longitudinal wave gauge.

All converter systems at first work based on a well-known and tried and tested physical principle of functioning. In the case of the railgun it is the bridge of Ampère. The thus used force effect on a conductor through which flows current is advantageous due to the obtainable order of magnitude and as a basic concept extremely recommendable. But also Coulomb forces or other physical principles can be used.

Despite that a further relation still must be added, which produces the interaction with the neutrinos. Closely associated with the unipolar arrangement it is the unipolar induction, which in virtually all space energy concepts is put to use. It already could be shown that the railgun uses the effect as well as John Searl in the case of his flying disc ^{<ii>}. The Faraday law of induction turns out to be the key to free energy.

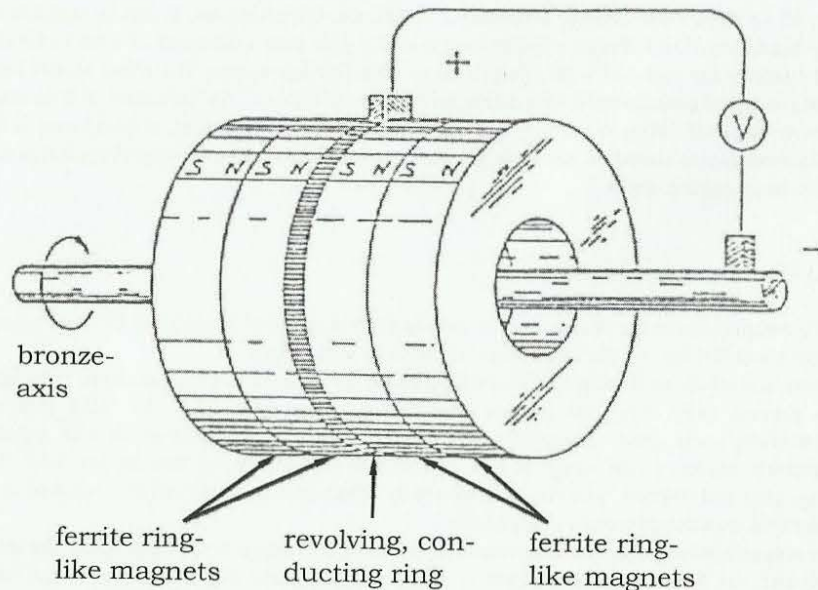


Fig. 16.1: The Faraday generator, which with rotating magnets is called N-machine.^{<i>}

According to chap. 6.5, eq.60 the equations of transformation are:

$$\boxed{\mathbf{E} = \mathbf{v} \times \mathbf{B}} \quad \text{and} \quad \boxed{\mathbf{H} = -\mathbf{v} \times \mathbf{D}} \quad (16.1)$$

where: $\mathbf{v} = dx/dt = \mathbf{v} \cdot \mathbf{e}_x$ = component of the direction of motion perpendicular to the area being stretched by the field pointers

$$\mathbf{H} = H \cdot \mathbf{e}_y \quad \text{and} \quad \mathbf{E} = E \cdot \mathbf{e}_z.$$

Thus in addition to the basic fields \mathbf{E} and \mathbf{H} (at $\mathbf{v} = 0$) additional fields E_z and H_z , depending on motion, occur and the overall fields E_0 and H_0 are measured (which corresponds to eq. 63 in chapter 6.5):

$$\boxed{E_0 = E + E_z} \quad \text{and} \quad \boxed{H_0 = H + H_z} \quad (16.2)$$

(which corresponds to eq. 62 in chapter 6.5):

$$\text{with: } \boxed{E_z = \mathbf{v} \cdot \mathbf{B}} \quad \text{and} \quad \boxed{H_z = -\mathbf{v} \cdot \mathbf{D}} \quad (16.3)$$

Table 16.2 A: The equations of transformation of the electromagnetic field.^{<ii>}

16. Space energy technology (SET)

It quite concretely concerns the question for a technology concerning the use of the resonant interaction (according to line 4 in fig. 15.1). For that open and at the same time oscillating electric field lines are needed, which mediate neutrinos and pass them on to a receiver working in resonance. The sun, some planets and other celestial bodies, as we already have worked out, use the effect. Even an entire galaxy is kept together in this way. This interaction plays the crucial role for the theme of space energy and the question is asked, with which technology it can be produced artificially.

16.1 The unipolar generator

The most direct way obviously leads over the Faraday relation concerning the unipolar induction. With the classic Faraday generator, where a permanent magnet is turned along its axis, at first a static electric field can be produced. By rotating in opposite direction or magnets rotating in the same direction but oppositely poled, relatively simple one pole can be „pinned“ between the magnets and an unipolar construction can be built. Numerous research scientists already have worked in the area of the Faraday machine more or less successfully (fig. 16.1)^{<i>}. There is reported of instabilities and of the picking up of unknown energy at high revolutions per minute. In the majority of the cases it in a sense of the Testatika will concern collected electricity of the air.

The Faraday relation in addition also appears to be hardly understood correct physically by anyone. A scientific magazine in this context takes the opinion: "Faraday proves Einstein wrong", and the production of electricity with Faraday's unipolar inductor violates the laws of physics.^{<ii>}

<i>: A. Schneider: Energien aus dem Kosmos, Jupiter-Verlag 1989, S. 44

<ii>: „Faraday in his experiment did let rotate a copper disc above a resting cylinder magnet; as expected in a loop of wire a tension voltage was created (F-machine). Then he let the magnets rotate, and the disc stood still; now again a tension voltage should have resulted - but there was no voltage. In the third experiment the magnet rotated with the disc in the same direction and with the same speed. Because there was no relative motion between both, an induced tension voltage wouldn't have been expected - but it was measurable. (N-machine, see fig. 16.1).

What does that mean? If the relative movement between magnet and disc is not always crucial for the formation of an induced tension voltage, then also the absolute movement has to play a role - because something has to move, for a current being formed. But an absolute movement according to the theory of relativity can't be detected - thus Faraday's experiment proves Einstein wrong! Therefore you won't find anything about this experiment in the textbooks“.

Taken out of the article: Faraday widerlegt Einstein, PM-Magazin 11/1998, P. 133

from table 16.2 A:

$$\boxed{H - H_0 = -H_z = v \cdot D} \quad (16.4)$$

with the velocity $v = dx/dt$,
not accelerated $dv/dx = 0$ (inertial system) and derived for x:

$$\boxed{\frac{dH}{dx} - \frac{dH_0}{dx} = \frac{dx}{dt} \cdot \frac{dD}{dx} = \frac{dD}{dt}} \quad (16.5)$$

The curl of the H-field pointer points in the z-direction:

$$\boxed{\text{rot } \mathbf{H} = \frac{dH}{dx} = \frac{dH_0}{dx} + \frac{dD}{dt} = \mathbf{j} + \frac{dD}{dt}} \quad (16.6)$$

comparison of coefficients with Ampère's law:

$$dH_0/dx = \mathbf{j}, \quad (16.7)$$

integrated over dx and ds and formulated generally valid:

$$\boxed{\oint \mathbf{H}_0 \cdot d\mathbf{s} = I_{\text{ein}}} \quad (16.8)$$

thus follows from that: magnetic field = vortex field

Faraday's law of induction (analogous derivation):

$$\boxed{\text{rot } \mathbf{E} = \frac{dE}{dx} = \frac{dE_0}{dx} - \frac{dB}{dt} = -\frac{dB}{dt}} \quad (16.9)$$

cause for measurable electric field E_0 is missing:

$$dE_0/dx = 0, \quad (16.10)$$

integrated over dx and ds and formulated generally valid:

$$\boxed{\oint \mathbf{E}_0 \cdot d\mathbf{s} = 0} \quad (16.11)$$

thus follows

from that: the electric field = irrotational (according to Maxwell)

Table 16.2 B: The derivation of Maxwell's field equations (Ampère's law and Faraday's law of induction) from the equations of transformation of the electromagnetic field

The author of the article proceeds from Maxwell's formulation of Faraday's law of induction, according to which arises a tension voltage in a wire if the wire cuts magnetic force lines, thus is moved relative to a magnet.

If he had read my books, then he would know that Faraday not only has found the older, but also the more comprehensive law, whereas Maxwell only describes a special case. Starting-point for the by me developed theory of objectivity are on the one hand Faraday's law of induction and on the other hand the regularity dual to that, which both together are called equations of transformation of electromagnetism (fig. 6.5, eq. 60 and fig. 16.2 A, eq. 16.1).

16.2 Derivation of Maxwell's field equations

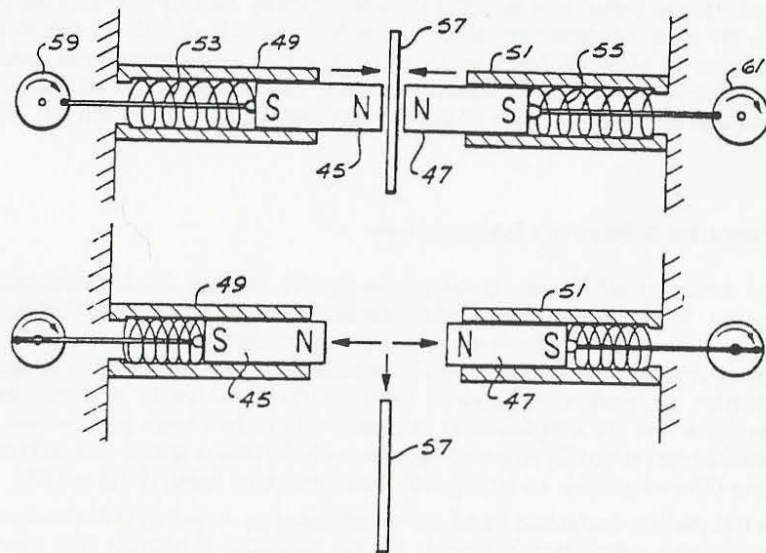
For the derivation we assume, as already in fig. 6.5 for sake of simplicity, that the movement $\mathbf{v} = v_x$ takes place perpendicular to the area stretched by the field pointers $\mathbf{H} = H_y$ and $\mathbf{E} = E_z$. If we derive the equation of transformation, written down for a field component depending on motion, for the coordinate x by using the equations of material and compare the result with Ampère's law resp. Faraday's law of induction, then it becomes clear that the comparison is successful only under certain prerequisites. This circumstance proves that the Maxwell equations only describe a special case and that the equations of transformation are more general valid and causal (table 16.2 A and B).

But in this place is crucial that Faraday's law of induction according to Maxwell only is able to describe a formation of dipoles. For the formation of unipolar field structures however must be fallen back upon Faraday's law concerning the unipolar induction. Whoever wants to understand or even develop by himself concepts concerning space energy, first must have understood Faraday's law in its whole range.

Usually the Faraday generator is, like in the original building shape, equipped with permanent magnets and operated in a steady operating state. Doing so consequently only static electricity is formed. We however need oscillating fields, and for that either the rotation, or the magnet should be changed in polarity with high frequency. Expressed with the precision of mathematics, the first case is described by: $\mathbf{E}(t) = \mathbf{v}(t) \times \mathbf{B}$ and the second case by $\mathbf{E}(t) = \mathbf{v} \times \mathbf{B}(t)$. Both cases have to be investigated and discussed, because both $\mathbf{v}(t)$ and $\mathbf{B}(t)$ are possible in principle. It is added that in both cases mechanically moving, as a rule rotating, designs but just as well resting designs are conceivable, in which only the moving charge carriers themselves realize the component of velocity \mathbf{v} .

This time the crucial point is, that in both cases equally a change of the electric field strength $E(t)$ is produced, with the help of which neutrinos should be collected. Because of the extremely high oscillation frequency of the neutrinos large field changes $dE(t)/dt$ and associated with that large changes of tension voltage dU/dt seem to be the optimal solution, which can be handled with today's technology. Apart from that further difficulties are added, which require a managing in accordance with engineering. If we namely work with a large acceleration $dv(t)/dt$, then the inertia of the accelerated masses should be overcome, then only very small and light projectiles can be launched like in the case of the railgun. If we however work with fast changes of the magnetic field $dB(t)/dt$, then the inductance acts slowing down.

A: Suggestion from the patent specification of John W. Ecklin



B: For instance the „Stationary Armature Generator“

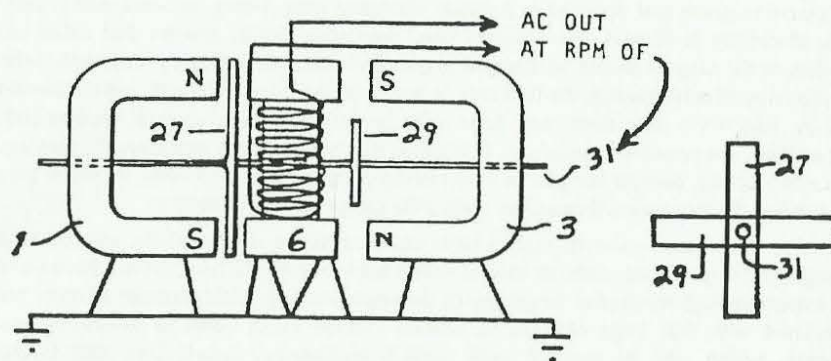


Fig. 16.3: Principle of the Ecklin generator. <i>

16.3 SET-devices with rotating magnetic fields

If we again come to speak of the Faraday generator, which can be built up in two variants. In the case of the F-machine the magnets rest and only the disc rotates, whereas in the case of the N-machine the magnets rotate along. In this case can't be avoided that some of the induced charge carriers roam about in the magnets and sensitively disturb the structure of the material. One only thinks of the bending spoon effect.

The consequences stretch from a loss of the permanent magnetism, over a shattering and bursting up to a pulverizing of the magnets. Adventurous rumours and alarming reports in this direction are sufficiently available.

An improvement could be obtained by an isolation layer between the conductive disc and the magnets, but against induced charge carriers inside the rotating magnets this measure is not able to achieve anything.

Anyhow the best thing to do will be to completely do without permanent magnets in neutrino converters! If we replace them at least in our minds by electromagnets, then a feeding with alternating voltage is possible. That also is necessary if oscillating neutrinos and not air ions should be collected.

As a result of the alternating voltage at first large eddy currents occur in the disc. The losses can be reduced by radial slits in the disc. The induced currents then only can, as wanted, flow radially to the outside.

Bigger headaches causes us on the other hand the inductive and with that current storing effect of the excitation coils. If a too large excitation inductance should prevent a fast increase in current, then also the induced electric field will increase correspondingly comfortable and hardly be able to persuade a single neutrino to stay.

A coil core of iron or dynamo sheet metal with that is ruled out from the start. Even ferrite would be suitable at most conditionally. Usable are air coils with as possible as few turns. In an advantageous design the slit copper disc rotates between two air coils, if need be flat coils built in the way Tesla did, which are fed with pulsed tension voltage.

The highest speed of change in current surely is obtainable by means of a spark gap, like already Tesla has used (fig. 9.1). But also other techniques are thinkable as pulse driving. For instance semiconductor power amplifiers with MOS transistors not only can be switched fast and hard, but in addition frequency and duty cycle can be adjusted freely with reproducible exactness. These are niceties, which will gain importance in connection with the control and regulation of a converter.

Under the heading "generators with magnetic flux variation" Mr Adolf Schneider has collected and commented on some concepts<i>. The generator of the american research scientist John W. Ecklin registered for patent at 22-4-1975 thus stands as an example of a whole group of inventions, in which the magnetic conductivity in the magnetic circuit and with that the flux is changed with a jump.

Fig. 16.3 B shows a building form consisting of two horseshoe magnets (1, 3) with a likewise resting coil in between (6). In rest the magnetic circuit experiences no change and consequently no tension voltage is induced in the coil. The trick is that an axis (31) is pinned right through the arrangement which is turned with two soft iron anchors, which magnetically short-circuit alternating the left (27) and the right (29) horseshoe magnets.

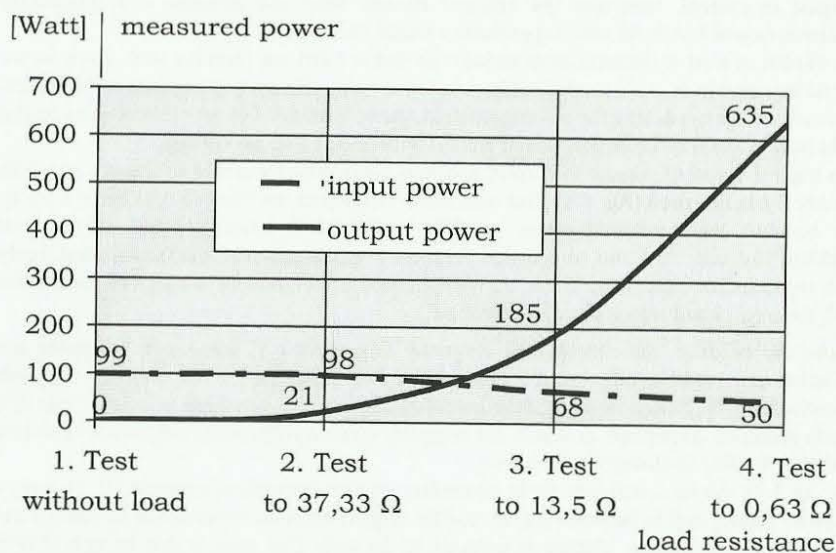
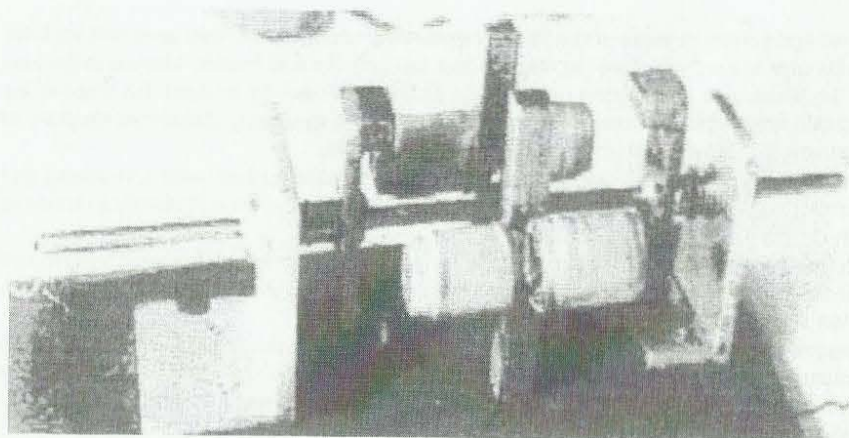


Fig. 16.4: Bedini magnetic converter. <i>

Besides the moment of reluctance, which should be compensated by the physical principle, and the friction of the bearing actually no further moment of reaction can occur which would have to be gotten over, not even then if current is taken out of the coil. If the flux change is large enough, purely arithmetically it should be possible to take off an electric power which is considerably larger than the friction power. John Bedini has 1985 measured an over-unity effect of up to 12.6 at a similar constructed generator, where with increasing strain also the factor could be increased (fig. 16.4).

16.4 Commentary concerning magnetic SET-devices

I judge these measurements rather sceptical, after I already in three cases had to break the message gently to the inventors, that their device unfortunately was nothing but an energy destroying machine and they merely had measured wrong, where admittedly the measuring of pulsed tension voltages and currents is not quite simple. So that you don't become a victim of wrong hopes and self-deception, I recommend all SET inventors to realize the closed-loop. If in the continuous operation power can be taken out of such an arrangement without supply of energy from the outside, and be it as small as possible, then that convinces everyone even any journalist and any non-expert.

Unfortunately in the case of numerous concepts at this place already the end is reached. As charming the variation of the magnetic circuit may be, in most cases I miss the unipolar arrangement of the fields. Perhaps here no neutrinos are needed at all and energy merely is withdrawn from the environment heat? I'm not able to answer this question and I surely don't need to, as long as no magnetic converter is demonstrated to me as closed-loop. Such a converter, if it can be realized, presumably will at least partly hide one of its poles and produce some open field lines; that at least would be expected.

A still bigger measuring technical problem represent the neutrinos bound to a line, which oscillate around the conductor in the form of ring-like vortices. We have become acquainted with these in the case of the single-wire transmission technique of Tesla (fig. 9.5). They are formed, if neutrinos are slowed down and collected, but not yet have materialized to charge carriers. Tesla did use them for his loss-free energy transmission technology, but he couldn't supersede the alternating current technology full of losses, which also stemmed from him but which he called the worse technology, from the market because there were no power meters available for the single-wire-technology.

Today we still aren't one step further. The energy supply enterprises still decline this technology, as I had to learn myself, although this would be the only way to transport solar energy from the desert or energy from the geothermal energy of Iceland by a sea cable to Central Europe, where it is needed.

Today still no gauges exist for such neutrinos bound to a line. Therefore will every measuring technician experience his Waterloo at SET-devices, in which they occur! I now will report of such a converter and the odd measuring problems.

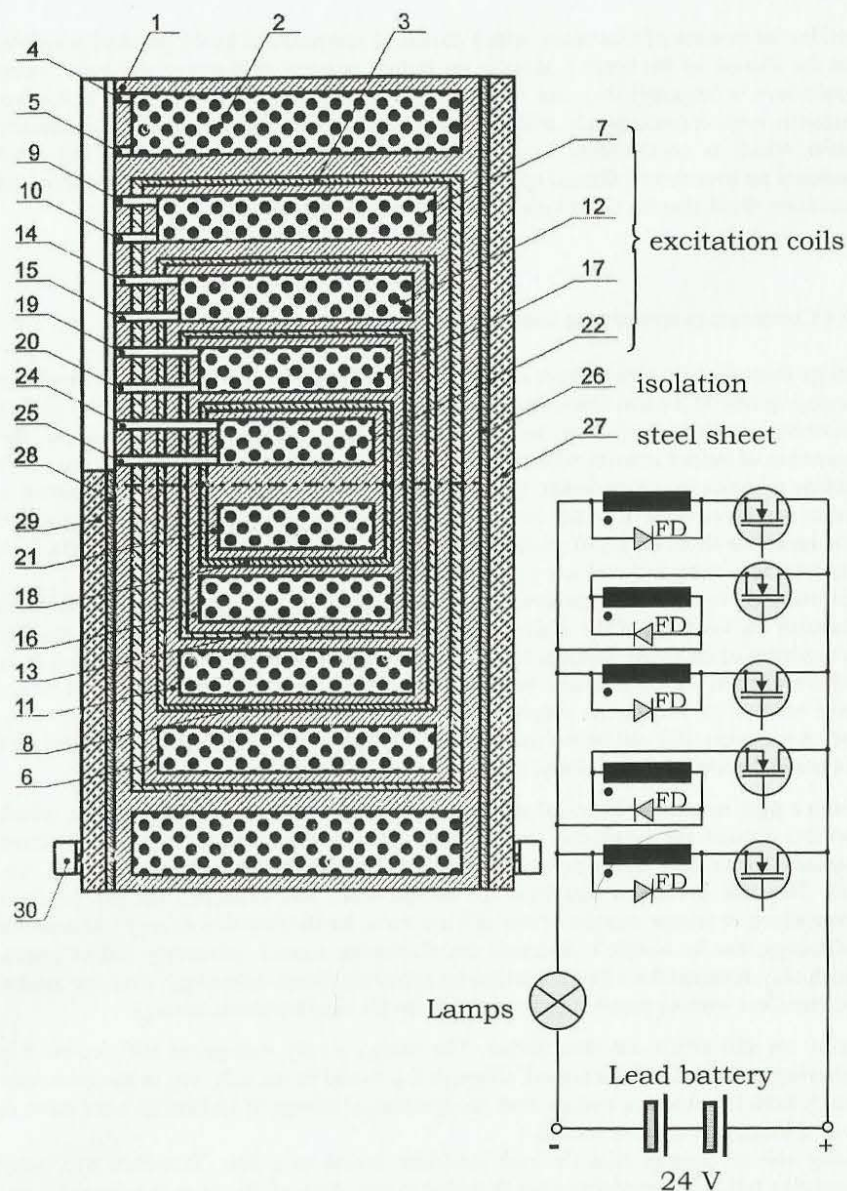


Fig. 16.5: Space quanta manipulator of the Firma RQM AG^{<i>}

<i>: Gibas, Greilinger, Lehner, Rusterholz: Strom aus dem All, Mega Link, Fachzeitschrift für Elektronik, Nr. 6, März 1998, S. 18-23
resp. Bau: Glaube kann Berge versetzen, Bulletin SEV/VSE 25/97, S. 31

16.5 RQM and the space quanta manipulator

If an employee or one of the numerous shareholders of the Swiss Firma RQM AG in Rapperswil speaks of space quanta, then he with that presumably means the *neutrinos*. An *oscillating source of neutrinos* is called central Space Oscillator and an *operation in resonance* of the energy receiver, the so-called space quanta manipulator, is required. Mr Ludwig Sigrist, the creator of this world of imagination, was not a physicist but crane operator (pseudonym Crane O.) and inventor, whom textbook physics couldn't help further in his considerations anyhow. His concept, if it can be translated into a scientific comprehensible language or not, at least helped him personally and gave him the position to create the space quanta manipulator (fig. 16.5).

It consists of several pot coil systems, which are build up and boxed into each other according to the Matryoshka principle of scaling down. The ferromagnetic core material of the pot spheres (1, 6, 11, 16, 21) should show magnetostrictive properties as distinct as possible. *As we will see, this measure gains its actual importance first in connexion with the interaction with neutrinos.*

Each pot sphere carries an excitation winding (2, 7, 12, 17, 22), through which alternatively flows a current in opposite direction. *By means of this measure, which seems useless according to classic design concepts, one of both field poles is pinned in the centre, in which way the necessary open field lines are produced.*

The individual pot spheres are insulated from each other, where the isolation layers (3, 8, 13, 18, 26, 28) should have a high dielectricity. The pot spheres thus in addition form capacitors with each other; even the ending plates at both sides (27, 29) function as capacitor plates.

This construction, the core piece of the planned RQM converter, is driven by a transistorised power amplifier with excitation impulses as steeply flanked as possible. According to patent specification^{<i>} the pulse widths are freely eligible in steps of 5 ns between 200 nanoseconds and one second. Besides the frequency also the polarity and DC voltage offset are adjustable.

Every visit of the laboratory leaves a lasting impression: Carefully the engineers grope forward, turn at the frequency and the duty cycle, until the effect suddenly occurs and neutrinos, the space quanta, are being collected. One realizes that tuning parameters with still stronger reactions would be possible, but entirely without any regulation and limitation of power that can't be controlled anymore. The avalanche effect would destroy everything, and so one is further dangling along the brink of the abyss in the development laboratory of the RQM, all the time trying hard to gain control of the hardly understood effect.

Concerning the setup and the mode of operation of the pot system the inventor did let his posterity have explanations, but why a diode in free operation FD suddenly loses its rectifying function, for that neither the employees nor specialist visitors of as high as possible scientific rank in the laboratory until now had ready an answer.

<i>: Gibas, Lehner, Greilinger: Vorrichtung und Verfahren zur Erzeugung elektromagnetischer Pulse, Patentschrift CH 687 428 A5 vom 7.5.1996

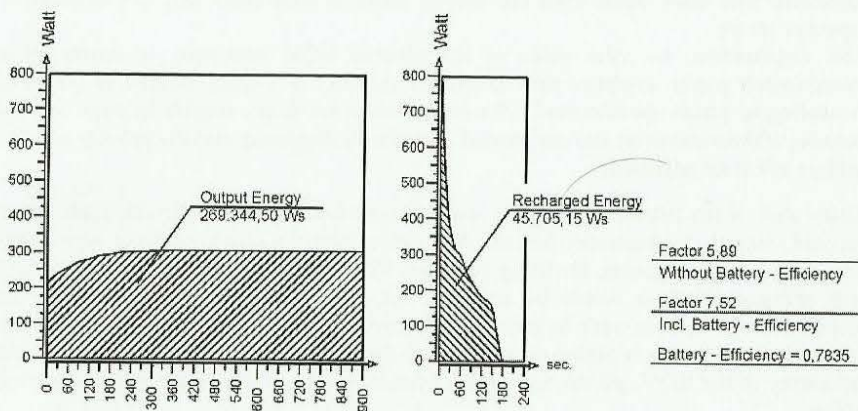
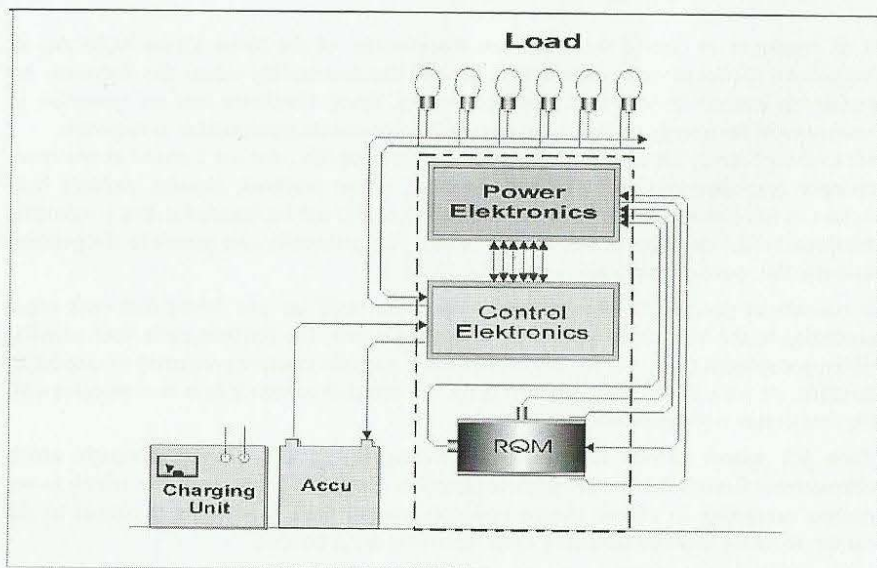


Fig. 16.6: The RQM test installation of 23-9-1996<i>

<i>: F. Greilinger: Der Weg zur erfolgreichen, stabilen Energieauskopplung, RQF Magnetik, Sonderausgabe 1996, page 10

As said, the neutrinos no longer are free but bound to a line, if they leave the pot system. They oscillate around the wire, even around every semiconductor and rove through the entire switchboard. Doing so they can cause quite something, also bring about quite some disaster.

Lead batteries are being recharged, which without doubt is desirable, but in the continuous operation they are destroyed by the same vagabonds. In normal light bulbs for instance some of them materialize to charge carriers, so that according to a gauge more current leaves the light bulb, as on the other side flows in to it. It indeed glows completely normal, but measuring technical for the installation nothing is normal anymore.

The visitor can be shown by means of a high precision measuring facility of vibrations that the pot coils oscillate not only electrically and magnetically, but also mechanically. But the effects alone don't make a converter, which can be produced and which await already numerous buyers of options and licenses.

On the one hand measures for the purposeful conversion of the roving space quanta in utilizable charge carriers here still are missing. On the other hand any controlling facility is missing, to adapt the power taken up from the neutrino field to the momentary need of the consumers. The brave engineers of the RQM still have quite some way in front of them, but the line of approach is right and the reached can be looked at.

16.6 SET-devices with pulsed magnetic fields

In the case of the space quanta manipulator mechanically nothing is moving. In the copper coils the charge carriers merely are on the way with the velocity v . We here have present a typical example of a SET-system with pulsed magnetic field. Compared to the before discussed SET-devices with rotating magnets, for instance the N-machine, the space quanta manipulator clearly has its nose in front. Without brushes, without friction and wear and tear it theoretically has a unlimited life.

In addition it is simpler to produce the necessary large steepness of the flanks in an electronic way as by a mechanical variation of the magnetic field. By means of electronically driving the process it also can be checked, controlled and regulated easier.

The question for an optimisation of the concept still remains. At present one already can be satisfied with a study of possibility, but sometimes one will question the design. There as an example the eddy current losses in the iron pots will be at discussion. About sheeted or sintered materials could be thought, if not at the same time the inductance of the coil would increase in that way, which slows down the increase in current.

Ferrite materials again are very brittle and would crumble to dust under the mechanical oscillations of size. I proceed from the assumption, that also here an arrangement with air coils could turn out to be an optimum. It does make sense, if Tesla at higher frequencies always did experiment with air coils.

Now it still depends on the coiling technique. One single conductor loop doesn't provide any open field line. For this purpose if need be two loops have to be supplied with current in opposite field direction, like it is the case for a so-called Möbius winding. In this way possibly just as many neutrinos interact as in the case of the pot coils of the space quanta manipulator, which are alternatively supplied with oppositely phased current.

To clarify the situation we now should occupy us with the coiling technique.

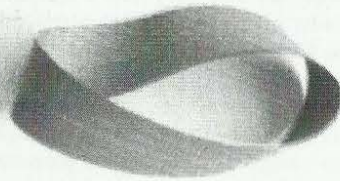


Fig. 16.7 A: The Möbius band

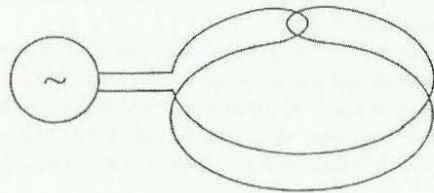


Fig. 16.7 B: The Möbius strip

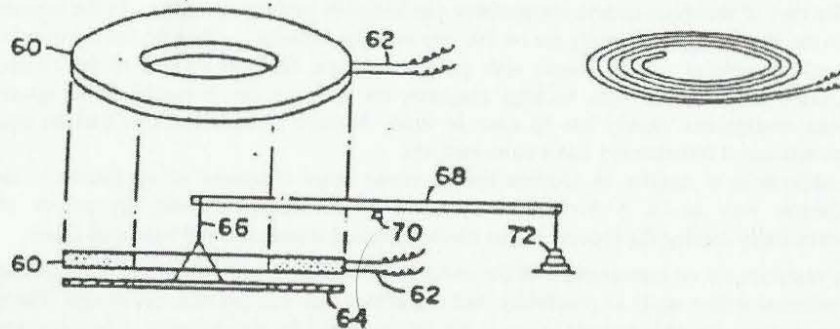


Fig. 16.7 C: Bifilar wound flat coil

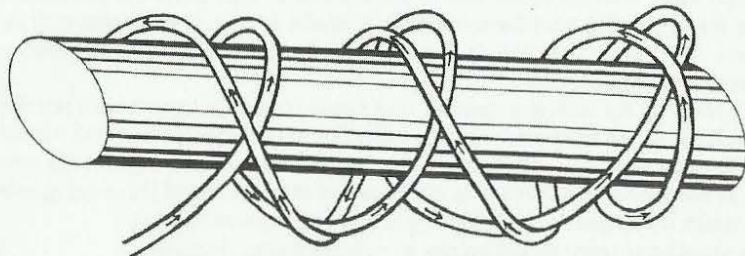


Fig. 16.7 D: Möbius winding arranged like a cross

16.7 SET-devices with Möbius winding

In connection with space energy devices often is talked about the use of a Möbius winding. That is traced back to the Möbius band, which one obtains, if one for example one end of a long paper strip after a half turn glues together with the other end. The result is a strip, which has neither top side nor underside and neither right nor left border. This object with only one side and only one border is a creation of the German mathematician August Ferdinand Möbius (1790 - 1868), fig. 16.7 A.

A distant relative of the Möbius band is the strip with the same name, where the magnetic field lines mutually cancel out. It is the same compensation, as we know of a two core electric cable, where the supply and return cable are run close together. For that the sense of winding of a conductor loop simply is reversed (fig. 16.7 B).

If the magnetic field vector is wrapped right-handed around the supply cable and left-handed around the return cable, then both amount to zero, so that measuring technical no rest field can be detected anymore at some distance.

The pointer of the electric field stands perpendicular to the magnetic field vector and points in the direction of the conductor and the movement of the charge carriers. From the coupling of magnetic and electric field follows, that the compensation of one of them also leads to the compensation of the other one. But if the electric field actually is compensated, then there may not flow any current in the winding.

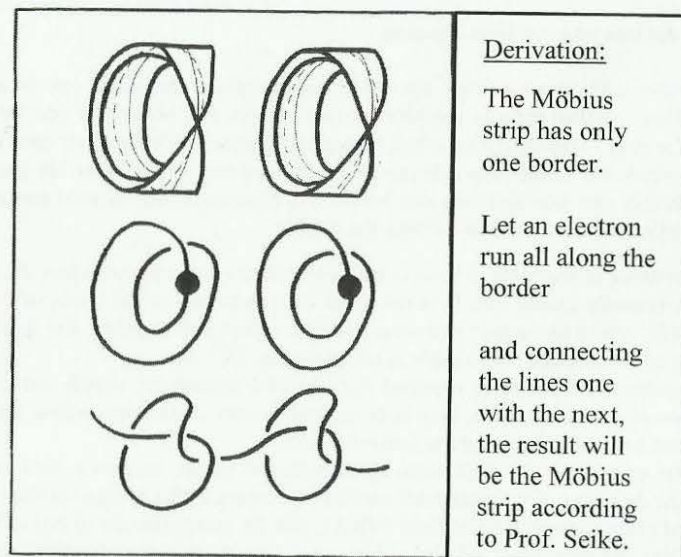
There however flows a current if an electric tension voltage is supplied to the Möbius winding. As a result of this forced current flow both electric and magnetic fields have to occur, which are not compensated. Some field lines will fold outward the expected direction and stand in space as open field lines. These we, in the oscillating case, owe the interaction with the neutrinos.

A perfect compensation would be expected for a two core, bifilar winding. The American physicist William Hooper was able to obtain interesting effects with a bifilar wound flat coil. With help of a balance he could detect attracting or repelling force effects on different, electrically or magnetically neutral discs (fig. 16.7 C)^{<i>}.

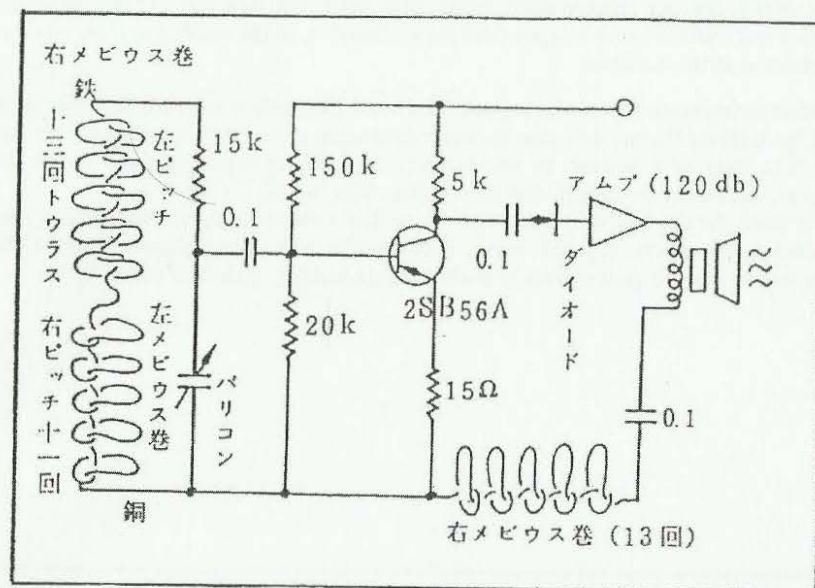
But he feeds the flat coil with direct current, so that a contribution of neutrinos can't be expected. Such effects only will occur, if one works with pulsed signals, because the bifilar wound flat coil quite obviously is able to form wanted, open field lines.

<i>: Schneider, Adolf: Energien aus dem Kosmos, Jupiter-Verlag 1994, page 28, taken out of:

Mielordt, Sven: Tachyonenenergie, Hyperenergie, Antigravitation, Raum & Zeit Verlag 1984



(第93図)

Fig. 16.8 A: Derivation of the Möbius strip acc. to Seike^{<i>}Fig. 16.8 B: Scalar wave radio according to Prof. Seike^{<i>}

<i>: Seike, Shinichi: The Principles of Ultra Relativity, Space Research Institute, 1990, ISBN 915517-1

16.8 Möbius converter of Seike and Coler

Concerning construction it can be an advantage to wind a Möbius coil not purely bifilar and in that way to do without a perfect compensation. It often already is sufficient, if two conductors cross and only individual components of the field vectors partly cancel out. In the case of the coil, which is pulled apart and wound like a cross, drawn in fig. 16.7 D the conductor current and the fields of supply and return cable belonging to it stand under an angle of almost 90°. This in individual cases should already be able to cause the formation of open field lines.

Similar field conditions are formed, if after every turn the wire is looped under the last winding. At the knots again the angle conditions of approx. 90° occur. The Japanese professor Shinichi Seike preferably works with this kind of winding, which he directly derives from the Möbius band (fig. 16.8 A)^{<i>}. He has designed an electro-gravitation motor basing on this principle. He also speaks of weight reduction and of an artificial anti-gravity field. It could be confirmed experimentally, that his setup cooled down slowly during the operational tests, despite the expected heating up by the copper losses of the current^{<ii, S.29>}. Unfortunately I don't know anything more exact.

In his book further is found the wiring diagram of a radio for the reception of scalar waves (fig. 16.8 B). He thereby quite simply replaces all coils in the high-frequency part with his Möbius coils. If longitudinal waves already are measurable and receivable with this simple measure, first has to be checked.

The German captain Coler more than 50 years ago has developed another Möbius converter. His "Magnetstromapparat", with approximately 6 kW power and an at least four-fold over-unity effect uses six coils with permanent magnetic core. As a peculiarity he in addition runs the coil current through the core under an angle of 90° with regard to the coil current (fig. 16.8 C).

More detailed details can be seen in the footnote^{<ii, S.22>}.

<ii>: Adolf Schneider: Energien aus dem Kosmos, Jupiter-Verlag 1994

S.22: "Scientists of the Technical University Charlottenburg in Berlin and Munich confirmed that the device functioned without objections, but they didn't find a theoretical explanation for the production of energy. The professors Kloss and Franke of the Technical University of Berlin found a degree of effectiveness of 450%. Prof. Schumann confirmed that 4.8 to 6.7 times more energy came out, than was put into the device. Prof. Schumann excluded a deception entirely as the records prove.

But it wasn't simple to set the device going and the stability for longer periods of time wasn't guaranteed. The war confusion set an end to further research. After the end of the war the British secret service confiscated all available documents and apparatus. Part of the report was declassified in 1962".

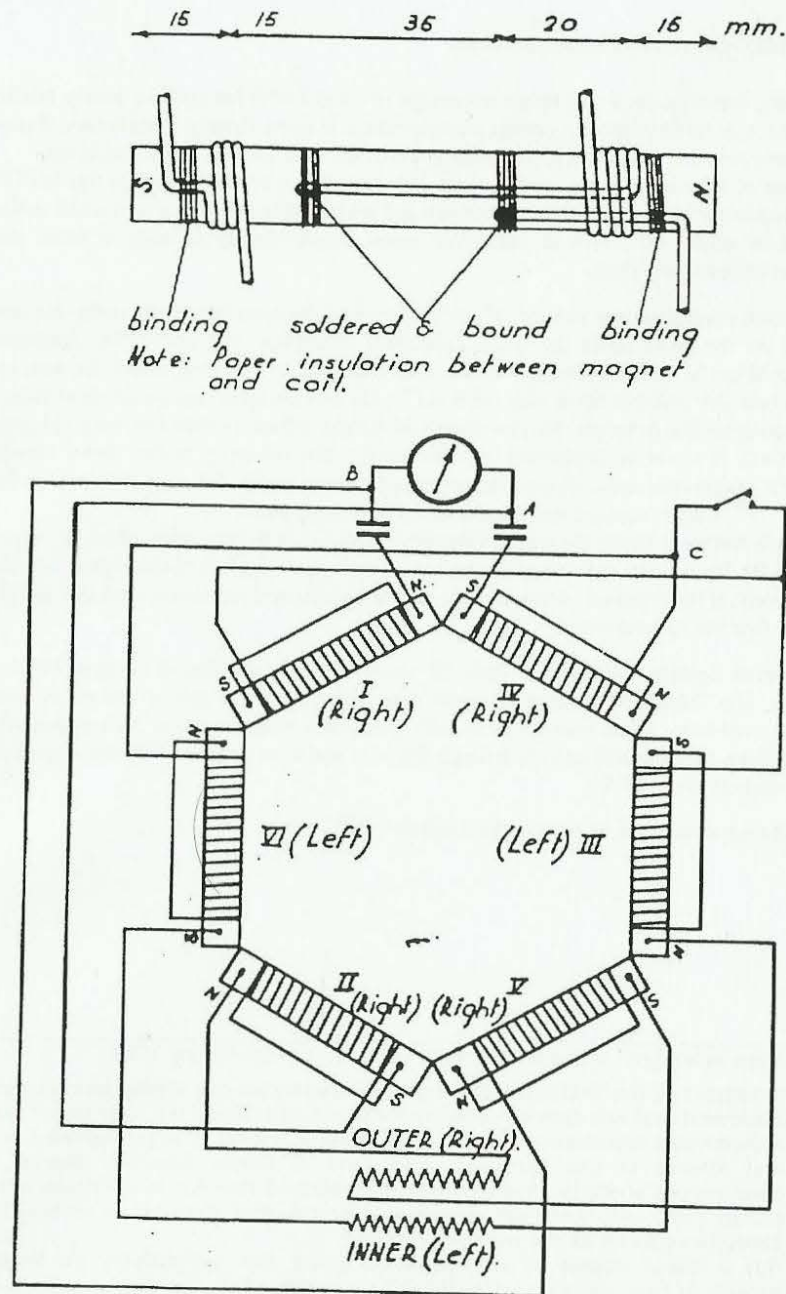


Fig. 16.8 C: The Coler converter

16.9 Tesla's flat coil

In the category of the unconventional coiling techniques without doubt the Tesla coil may not be missing. If in schools and high schools such coils were standing in the laboratory for teaching purposes, then as a rule it are cylindrical coils. In reality Tesla worked with flat coils but that, so is said, isn't necessary anymore today, since we have at our disposal better isolating materials than 100 years ago. Actually Tesla contended with problems of isolation, which he could solve with the help of the flat coil, but it should turn out that the coil geometry is attached a crucial importance.

Everything had started with Tesla having to leave the Technical Highschool in Graz without diploma. He ran out of money and he had dared to criticize the venerable Professor Poeschel and his sparking Gramm dynamo. With that he had put himself under compulsion to succeed. Two years later he had ready the solution. In the year 1882 he discovered the rotary field in Budapest.

In the time to come he designs and builds an alternating current motor, but no-one wants to have it and surely Thomas Alva Edison not. Tesla after this disagreement very fast gives up his job at the Edison Company again and again stands under pressure to succeed. With that the eternal bachelor Tesla urges himself to ever higher efforts. He wants to prove himself and the rest of the world that his alternating current system is superior to the direct current system.

Direct current, as is well-known, can't be transformed, and thus the advantage of Teslas alternating current lies in the possibility of power transport by high-tension cable over large distances. But for that the high-tension transformers first had to be developed and thereby the said problems of isolation occurred.

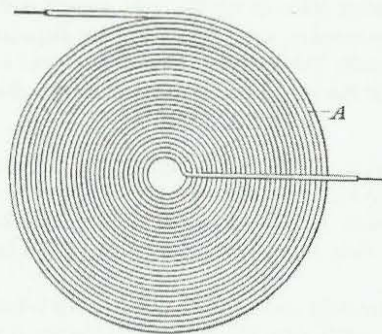
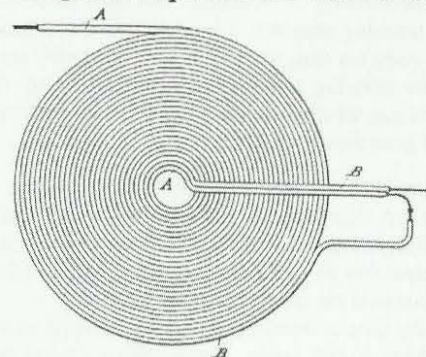
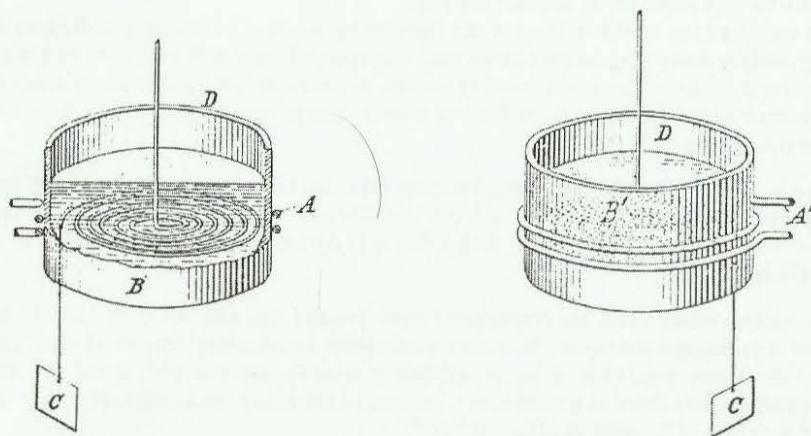
With each turn the tension voltage at the transformer winding increases. The distance to the grounding point lying on the outside has to be chosen bigger with each turn, so that no blow inside of the high-tension winding occurs. A consistent solution of the problem in accordance with engineering is the flat coil used by Tesla, wound spirally from the inside to the outside (fig. 16.9 A)^{<i>}.

It thus is correct that isolation technical reasons led to the flat coil, since Tesla himself was completely surprised as he had to find out that this coil can lose its self-induction, that scalar waves can be detected with it and that it is cooled down during operation in an inexplicable manner.

This cooling effect Tesla has investigated more detailed and after all even used. In his patent specification concerning the **superconductivity** he describes, that the flat coil also loses its Ohmic resistance, if he in addition previously cools it with liquid air. The remaining cooling down to absolute zero his flat coil obviously has carried out entirely by itself with help of the neutrinos (fig. 16.9 B)^{<ii>}.

<i>: Nikola Tesla: Coil for Electro-Magnets, Patent No. 512,340 (1894)

<ii>: Nikola Tesla: Means for Increasing the Intensity of Electrical Oscillations, Patent No. 685,012 (1901)

singly wound flat coil
(Tesla coil)bifilar wound flat coil
(from the patent specification of Tesla)Fig. 16.9 A: Coiling techniques of Tesla's flat coil. ^{<i>}Fig. 16.9 B: Patent specification of Tesla concerning Superconductivity. ^{<ii>}

^{<i>}: Nikola Tesla: Coil for Electro-Magnets, Patent No. 512,340 (1894)

^{<ii>}: Nikola Tesla: Means for Increasing the Intensity of Electrical Oscillations, Patent No. 685,012 (1901)

16.10 The secret of the flat coil

The technical function could be explained in the way that the charge carriers of a flat coil by induction are set into motion for excitation from the outside. The transmitted energy shows in form of kinetic energy. The spiral flat coil becomes narrower and narrower towards the inside, the length of each winding shorter and shorter, so that the kinetic energy inevitable has to decrease in favour of a rotational energy. The faster and faster rotating spherical vortices are pulled apart to flat discs and eventually to ring-like vortices by the centrifugal force. The electrons at first become neutrinos bound to a line and finally free neutrinos. Tesla has technically used the first ones in the single-wire-transmission technique (fig. 9.5) and the last ones in his wireless energy transmission (fig. 9.7).

Like many other inventors, Tesla owes also the inventions, which he counts his greatest, like the radio technique and the Magnifying Transmitter, first of all his industriousness, his persistence and a great deal of inventor luck. A magician, as he is called in his most important biography, he by no means was ^{<i>}. The flat coil, to which led him chance and which plays a central role in all these inventions, gave him the lucky position, to collect neutrinos and materialize them to charge carriers or in reversed direction to dematerialise electrons to neutrinos.

The technology however is everything else but new. Already the Lituus of the Etruscan and Roman Augurs and the crook of the priests had the same spiral structure (fig. 16.10). In the case of the devices, which the Augurs for instance served at land surveying, it clearly concerns flat coils according to Tesla. We will go into this strange „gauge“ more in detail in part 3 of the book ^{<ii>}.

The trick probably is, that one component of the electric field pointer is directed towards the centre of the coil and as a result some open field lines are generated, which then collect neutrinos from space.

In this process the neutrinos thanks to the resonant interaction are slowed down to the speed of light and following, as discussed, materialized by means of the flat coil, as in addition rotational energy is withdrawn from the neutrinos. Since the receiver oscillates resonant with opposite phase, in addition the thermal oscillations are reduced and the receiver becomes cold.

If one compares the Möbius coil with the Tesla coil, then besides numerous properties in common the strength of the first coil lies in the production of open field lines and the collection of neutrinos, whereas the special and additional property of the flat coil lies in the materialization, in the conversion of neutrinos into charge carriers. But the advantages of the flat coil have to be bought at the expense of having to work with very high tension voltages (above 511 kV) and with large changes in tension voltage (du/dt). With this set of difficulties we will have to deal in more detail.

^{<i>}: Margaret Cheney: Nikola Tesla, Erfinder, Magier, Prophet (Orig.: Man Out Of Time, 1981), Omega-Verlag Düsseldorf 1995

^{<ii>}: K. Meyl: Electromagnetic environmental compatibility, part 3, edition belonging to the information technical seminar, INDEL Verlagsabteilung 2003.

16.11 Discussion concerning the technology of the neutrino collectors

Let us again collect the facts for the discussion: A SET-device is distinguished by a more or less unipolar design and open field lines, with which interact neutrinos, which are oscillating in resonance. These then are slowed down and collected. For the transient process a large change in tension voltage ($d\mathbf{E}/dt$) is required, which can be obtained directly, for instance by means of a spark gap, or indirectly by means of Faraday's law concerning the unipolar induction ($\mathbf{E} = \mathbf{v} \times \mathbf{B}$).

The discussed possibilities concern the acceleration of a machine part ($d\mathbf{v}/dt$), the variation of the magnetic field ($d\mathbf{B}/dt$) by pulse-like excitation signals (16.5) or by magnetic flux variation (16.3) and the railgun, which even can be operated without foreign magnetic field (fig. 15.5 C) and for which in that case occur both a $d\mathbf{v}/dt$ and at the same time a $d\mathbf{B}/dt$.

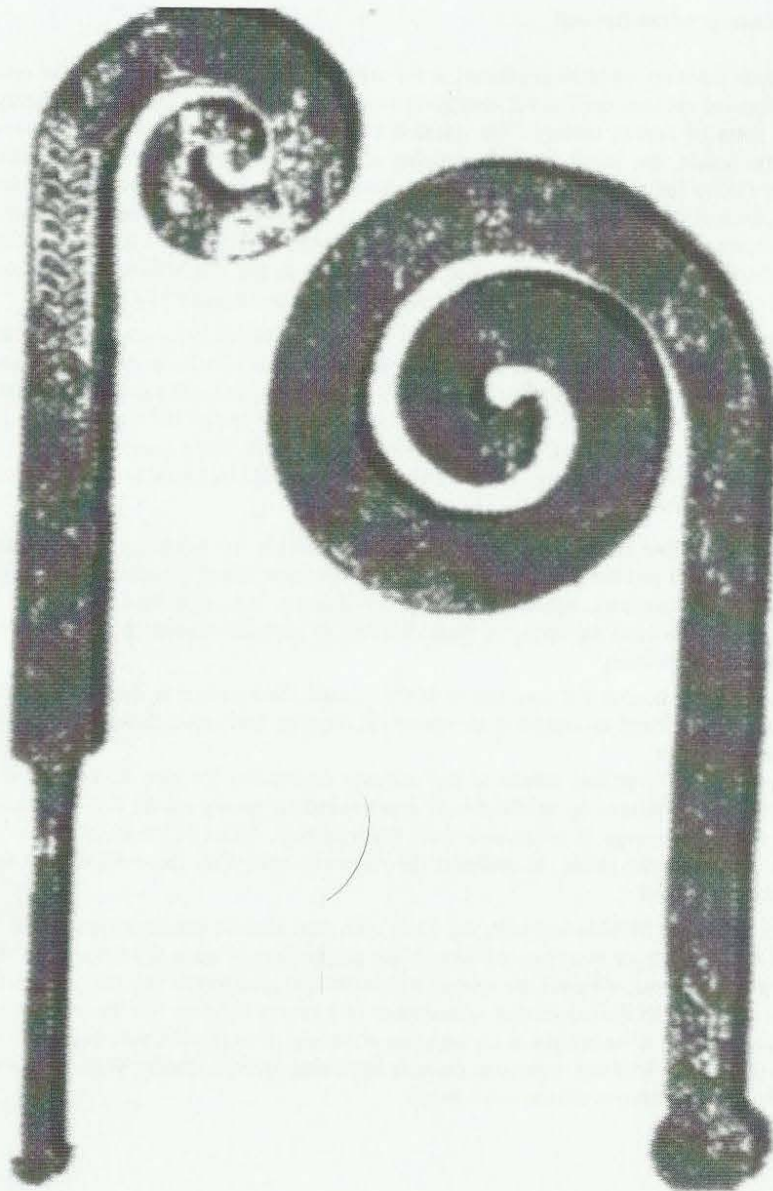
For resting arrangements the velocity \mathbf{v} is that of the charge carriers moving in the conductor. So that Faraday's law thereby doesn't lose its influence, the pointers of \mathbf{E} and \mathbf{v} mustn't point in the same direction, as in the case of "normal" coils. Unconventional windings, which for instance can be knotted like Möbius strips (16.7), take remedial action. Also the ancient crook, rediscovered as flat coil of Tesla (fig. 16.10), proves to be suitable in principle. Here one component of the electric field pointer points in the direction of the centre so that the wanted, at least partly, unipolar arrangement can be formed.

The first step, the collecting of space quanta, shouldn't pose an insurmountable obstacle anymore in view of the numerous possibilities and the detailed explanations. A real difficulty we still have before us, because in most cases some ring-like vortices bound to a line are formed, for which no electronic construction element exists and for which functioning converters hardly are known.

There spoons are bending, some lumps are flying through space, radioactivity is disappearing without a trace, light phenomena are formed and the device suddenly is becoming cold. Almost all inventors, who have arrived in this place, are enthusiastic about the not understood effects or with that are wanting to get attention, but hardly anyone really starts something with that. Until now the necessary system and an useful theory were missing.

Only too often isn't considered, that only an indirect conversion into charge carriers is possible, that during the materialization of neutrinos a intermediate product is formed, which can be described with the model concept of a neutrino bound to a line or of an oscillating ring-like vortex. The technologies collected in this chapter concerning the collecting of neutrinos only form the first step from the free to the bound ring-like vortex. The coming chapter is dedicated to the second step. Here we should try to understand the properties of space quanta bound to a line and loudly think about for which purpose we could use them in practice^{<i>}.

<i>: Reference: Both chapter 16 and chapter 17 treat point 4 according to table 15.1 concerning the resonant interaction (page 86).



The Etruscan Lituus

the Roman Lituus

Fig. 16.10: The Lituus or crook of the Augurs in ancient Rome

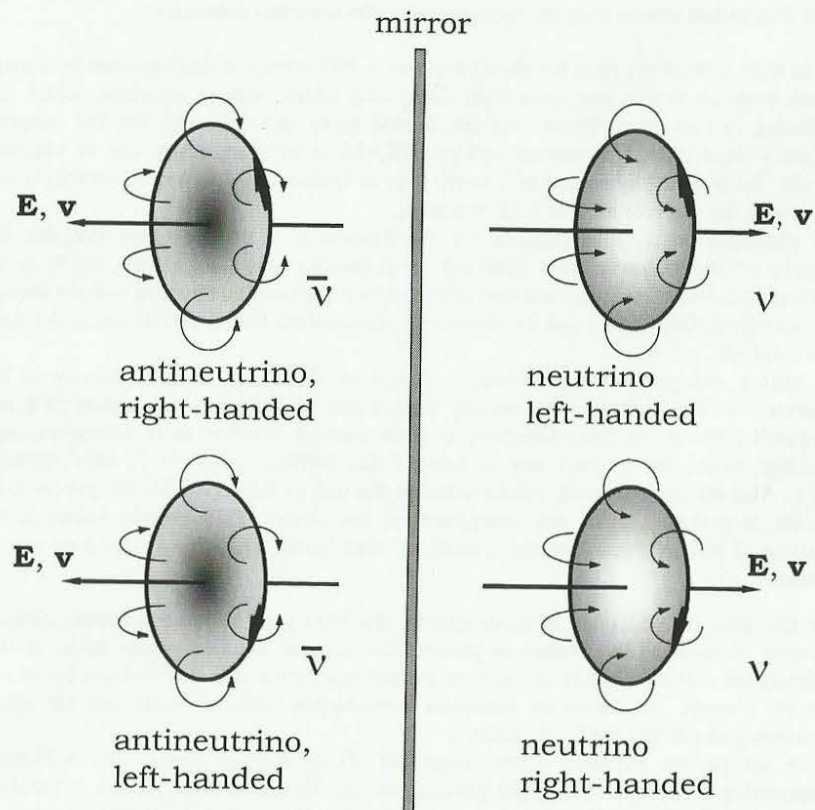


Fig. 17.1: Application of the mirror transformation to the neutrinos

<i>: Kleine Enzyklopädie Atom, Verlag Chemie GmbH, Weinheim 1970, S. 119:
 „For the neutrinos the quantum number parity isn't defined, because they have a fixed association of the direction of momentum and spin; the sense of rotation of the spin and the direction of momentum in their case form a left-hand wound screw, in the case of antineutrinos a right-hand wound screw. By the shown mirroring the direction of momentum is reversed, but the sense of rotation remains unchanged; i.e. reactions, in which neutrinos occur, are not mirror invariant, they violate the law of conservation of parity“. (translated)

Note of the author: an antineutrino by no means can be assigned to the anti-matter, since it exactly like every neutrino alternately takes the matter state and the anti-matter state, by oscillating around itself (see fig. 7.12). The description merely follows a definition founded in usefulness.

17. Technical use of the weak interaction

17.1 Radioactivity caused by neutrinos

Neutrinos are standing in a weak interaction with other elementary particles. This circumstance is known in general. According to the considerations and derivations expressed in the book the neutrinos mediate the resonant interaction, what leads to the conclusion, that the weak interaction represents a partial aspect of the resonant interaction, in which case it merely concerns the proximity.

Efforts are further being undertaken, to combine the weak interaction with the electromagnetic to an electroweak interaction, after it was remarked that a certain coupling constant corresponds in both cases. We of course aren't surprised, because the electromagnetic interaction anyhow describes only the special case of the resonant interaction with the frequency zero.

The weak interaction concerns with the very small range of just 10^{-16} meters only the proximity of the neutrinos, for instance the β -decay, where the neutrinos for the reason of their oscillating charge a free neutron rattle and shake so long, until it eventually decays, on the average after approximately a quarter of an hour.

The Austrian physicist Wolfgang Pauli had remarked, that half the decay energy after a β -decay is missing and the balance sheet of energy isn't working out. In addition also the balance sheet of angular momentum isn't working out, because the nuclear spin is being changed for a whole unit. Pauli as a result 1930 has introduced a hypothetical particle without mass and without charge, which he called *neutrino*.

With that Pauli and his co-working Italian colleague Fermi it is true are the givers of the name of the neutrinos, but not by all means the discoverer. If Cowan and Reines 1956 have detected these particles with large expenditure of devices, then also that by no means was a premiere, as falsely can be read in textbooks and encyclopaedias. After all Nikola Tesla already decades ago had demonstrated, that the neutrino radiation not only exists, but even can be used energy technically.

Now at the radioactive decay a β -radiation occurs, triggered by the conversion of neutrons in protons or vice versa. This obviously takes place under the influence and participation of neutrinos in the atomic nucleus. The β -radiation to a special extent consisting of electrons and positrons, as it occurs in the case of nuclear fission, is quite unhealthy and by no means ecologically compatible. Under the influence of free charge carriers not only metal lattices become soft and spoons can be bent, but also an electrolysis takes place, where the water molecules are splitted into their parts. That isn't a good prerequisite for the flora and fauna on our planet, which predominantly is built up of water structures.

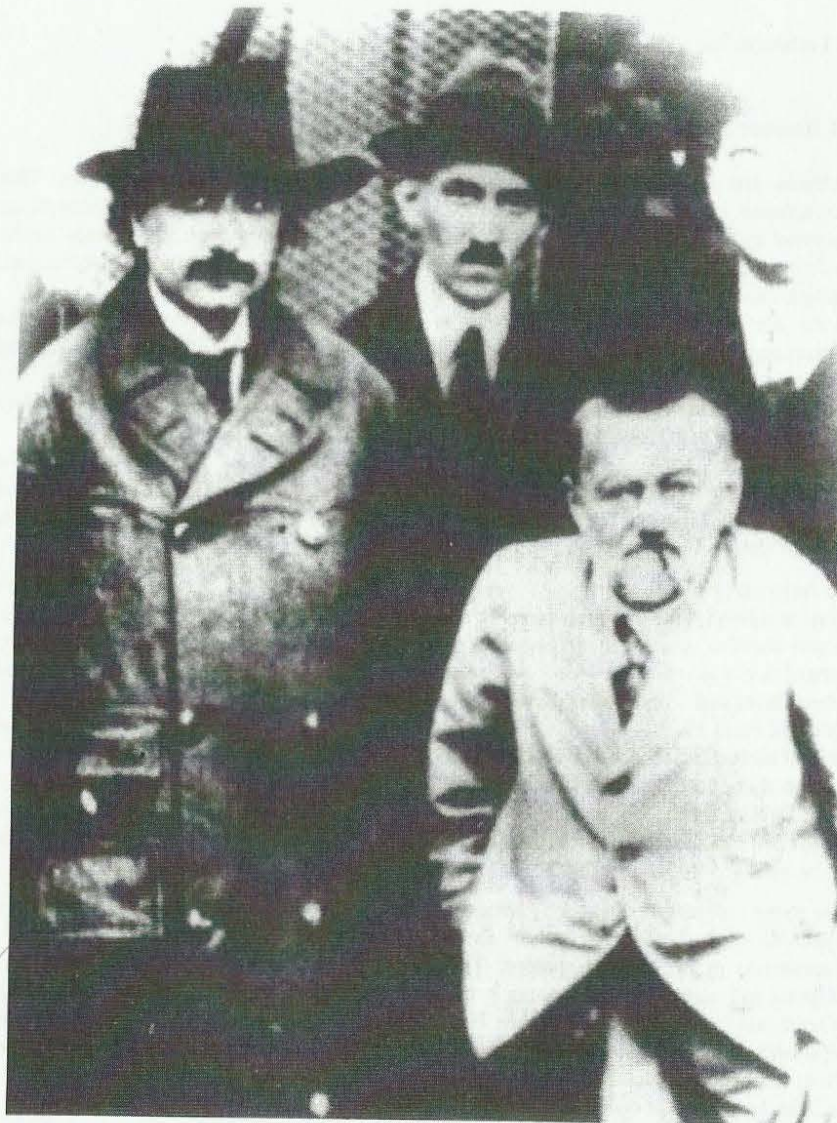


Fig. 17.2: Einstein, Tesla and Steinmetz^{<i>}
(from left to right)

<i>: Franz Ferzak: Nikola Tesla, Eigenverlag, S. 103

17.2 Nikola Tesla, the discoverer of the neutrino radiation

The discoverer of the neutrino radiation himself will best be able to explain the connexion. In the New York Times Tesla writes, that he has discovered and investigated the phenomenon of the cosmic radiation, long before others started their researches^{<i>}: „According to my theory a radioactive body is only a target, which constantly is being bombarded by infinitely small balls (neutrinos), which are projected from all parts of the universe. If this, at present unknown, cosmic radiation could be interrupted completely, then no radioactivity would exist any longer.

I made some progress regarding the solution of the mystery, until I in the year 1898 attained mathematical and experimental evidence, that the sun and similar celestial bodies emit energy-rich radiation, which consist of inconceivable small particles and have velocities, which are considerable faster than the speed of light. The ability of penetration of this radiation is so large, that it penetrates thousands of kilometres of solid matter, without their velocity being reduced noticeably.“

It must be admired how Tesla guided by experimental observations and a reliable instinct comes to the correct result. He merely with the conclusion, because of the missing interaction the neutrinos have to be inconceivably small, isn't quite right. Their size rather depends on the velocity, because the overfast neutrinos are being length contracted stronger. Tesla however hits the nail exactly on the head, if he on the occasion of the press conference for his 81st birthday declares, the radioactivity is a clear proof of the existing of an outer radiation of cosmic origin^{<ii>}. „If Radium could be shielded against this radiation in an effective way“, Tesla writes in an essay of 1934, „then it wouldn't be radioactive anymore“. At this occasion he contradicts Albert Einstein, without thereby pronouncing the name and is indignant at the wrong working method of the scientists^{<iii>}.

Me personally fascinates, how here until now ignored results have been presented, which I first had to work out theoretically myself with difficulty. Tesla, to the best of my knowledge, hasn't taken theoretical derivations, at least none have been handed down. As a brilliant experimental physicist he must have reached his conception world by means of the measuring technique. The perfect correspondence of his experimentally determined and the by me theoretically won insights should be judged as evidence for the correctness of this view.

<i>: Dr. Tesla Writes of Various Phases of his Discovery, New York Times, Feb. 6, 1932, P. 16, col. 8

<ii>: Tesla Said (J.T. Ratzlaff), Tesla Book Company, ISBN 0-914119-00-1, P. 272

<iii>: *"The scientists of today think profound instead of clear. One has to be mentally sane, to be able to think clear, but one can think profound and nevertheless be completely insane. The scientists of today have substituted experiments by mathematics, and they travel from one equation to another and eventually build up a construct, which has absolutely no relation to reality"...*

taken from N. Tesla: Radio Power will Revolutionize the World, Modern Mechanics and Inventions, 7/1934, (Tesla Said, P. 264)

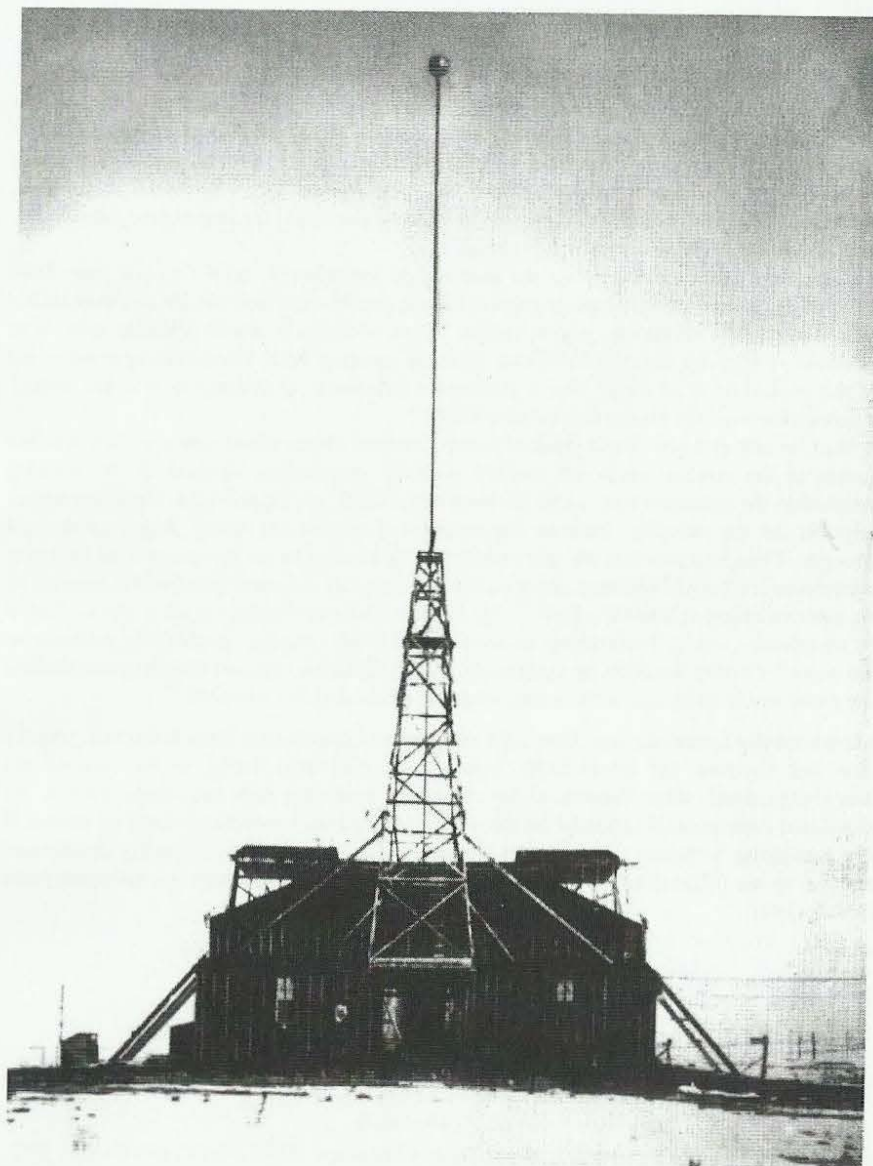


Fig. 17.3: The Magnifying Transmitter of Nikola Tesla
Would the research station in Colorado Springs
(1899 - 1900) have been suitable for transmutation?

17.3 Transmutation and reduction of radioactivity

If we are capable to collect and bundle up neutrinos, then should with that an influencing of the radioactive decay become possible, then also a decontamination of radioactively contaminated material and a so-called transmutation should be possible. We here have a concrete possibility before us, to use the produced ring-like vortices directly for the benefit of humanity. Dangerous transports with Castor containers, permanent and temporary storage and the contamination of whole areas by radiation, like around the nuclear power station Tschernobyl, which got out of control, wouldn't be necessary at all.

If namely burned out fuel rods and objects contaminated by radiation have undergone a concentrated neutrino shower, then the radioactive decay takes place accelerated, so that the half-life can be drastically reduced. After the treatment the dangerous special waste would have been changed to harmless domestic rubbish. Even recycling or reuse are feasible.

The topic is at least as explosive as the energy question and as well completely unsolved. That's why at different places and in some companies is already feverish researched about technologies concerning transmutation. Often it are the same people, who also work at the theme of space energy. The reason quite simple is that in both cases neutrinos have to be collected and bundled up. In the case of transmutation however the necessity of materialization can be dropped, so that the goal can be obtained faster and simpler. Consequentially is reported of more cases of a successful decontamination and of transmutation, than of functioning energy converters. Until now most techniques however still hardly are suitable for bringing into action technically on a large scale, but they carry clues of a solution of the problem already in them.

At the congress "New Energy technologies from USA" 6.12.1997 in Zürich I have lectured concerning the theme \triangleleft : „Presumably as the first one the doctor Dr. Wilhelm Reich has carried out corresponding experiments with his „*Orgon accumulator*“ (fig. 9.2). From him also stem warnings about biological effects, which should be taken serious, if radioactive material is put under his Orgon accumulator and the process of decay takes place accelerated“.

If one dares an interpretation of his experiments with only 1 mg radium, then numerous charge carriers materialized at hitting upon his sample of the bundled up neutrino radiation with the consequence of high electrostatics in the environment, which Reich has called DOR-state (Deadly ORgone) (chap.15.11).

Another way would be the rebuilding of a neutrino transmitter according to the plans and patent specifications of the experimental physicist Nikola Tesla (fig. 9.11). He 100 years ago had realized a real neutrino-broadcasting and for that developed an unconventional switching technique. Tesla called his transmitter a „*Magnifying Transmitter*“ (fig. 17.3). He choose the name „*Magnifying Transmitter*“, after he had received more energy than he had transmitted in experiments and this effect moreover was increased with increasing distance to the transmitter. He obviously also had collected free and synchronously oscillating neutrinos, and that would be the best prerequisite for a successful transmutation and decontamination of radioactive material.

\triangleleft i>: Konstantin Meyl: Die Wechselwirkung der Neutrinos; über Maßnahmen, die Halbwertszeit beim radioaktiven Zerfall herabzusetzen.
NET-Journal Jg. Nr. 3, Jan./Feb. 1998, S. 14-20

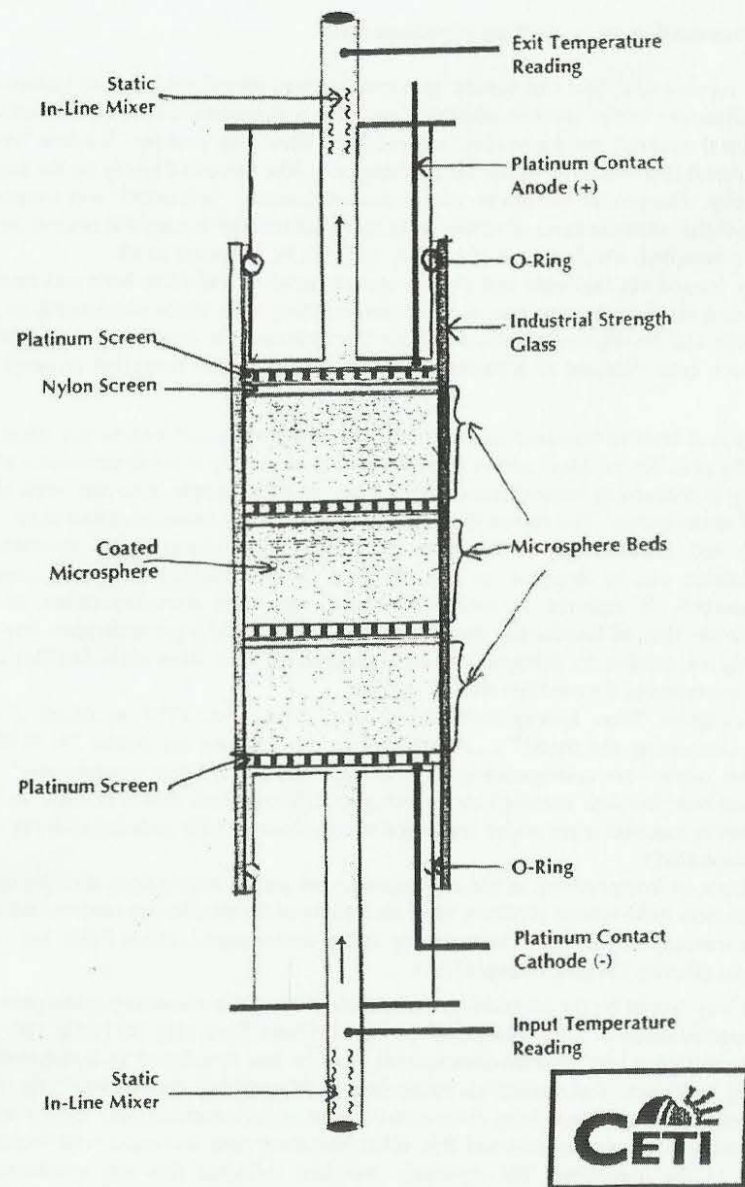


Fig. 17.4: 1 kW Patterson Power Cell. ^{<i>}

^{<i>}: Patterson, J. A.: System with electrolytic cell and method for producing heat and reducing radioactivity of a radioactive material by electrolysis. US Patent No. 5.672.259 of Sept. 30, 1997, as reprinted in Infinite Energy, July-Nov.1997, pp. 13-16

17.4 The Patterson Power Cell

As an example worth paying attention to, the Patterson Power Cell should be mentioned, which not only can be used for generation of energy but, how could it be otherwise, also for reduction of radioactivity and for transmutation. The energy cell invented by the chemist Dr. James A. Patterson is researched and developed further by the company CETI (Clean Energy Technologies Inc.) in Sarasota (Florida, USA). According to latest reports such a device supplies at most one kilowatt of heat energy at an over-unity of up to 4000; thus 4000 times the energy is released than is taken up as required for the operation.

In fig. 17.4 one single cell of the energy converter is shown. The glass container consists of three chambers of approx. 4 cm height each time and about 1.9 cm in diameter and works like a continuous-flow water heater. From the bottom tapwater or distilled water is supplied and at the top connection again taken away in heated form. The excitation takes place electrostatically by means of two platinum electrodes. The anode situated at the top is connected with the positive pole and the cathode with the negative pole of the source of direct current.

In the three chambers are situated tiny, filmy coated small balls, which form the real principal item of the cell. Production method and structure of the beads are oriented to the task to be mastered. In the case of a variant conceived for the generation of energy the barely one millimetre in diameter small synthetic beads carry after each other a thin layer of palladium, a layer of nickel and once again one with palladium ^{<i>}.

The small balls remind with their layered structure at first of the Orgon accumulator of Reich. They also seem to function as collectors of neutrinos, but for smaller wavelengths and much higher frequencies. In addition is chosen a concentric arrangement with the spherical form, which with the electrically conductive surface and the dielectric core fulfil the function of a cavity resonator. Resonance actually is possible with flying past neutrinos, which have a wavelength which amounts to an integer multiple (1,2,3,...) of twice the diameter of the sphere.

The arising resonant oscillation however concerns not only the electric and magnetic fields, but by means of electrostriction and magnetostriction also a mechanic oscillation of size. The oscillation of size in reverse causes again oscillating electric and magnetic field pointers, which are partly open along the spherical structure and can interact resonant with further neutrinos. In this repercussion field the actual secret of the functioning of a Patterson-cell is hidden.

The president of the German association of space energy, Prof. Dr. Dr. Josef Gruber on the occasion of his visit at the company CETI and of a conference about „cold fusion“ in Vancouver has published a report ^{<ii>}:

^{<ii>}: Gruber, J.: Kalte Fusion und Raumenergie, report concerning the 7th international conference about "cold fusion" of 19.-24.4.1998 in Vancouver, B.C., Canada (Infinite Energy, Issue 19, 1998) and report concerning "International Symposium on New Energy" of 23.-26.5.1997 in Denver, Colorado, USA (Denver-report of the remote University Hagen)

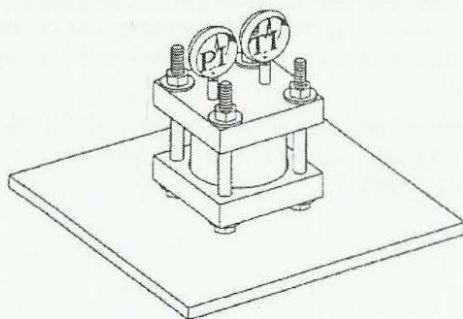


Fig. 17.5: Low Energy Nuclear Transmutation Cell,^{<i>}
the kit for experiments LENT-1
(Showing Temperature and Pressure Gags)

<i>: taken from the NET-Journal, 10/11 1997, S. 7

17.5 Report concerning the cold fusion

„In the case of the Patterson transmutation cell it concerns a special electrolysis cell, in which the radio nuclides are charged. During the electrolysis the decay activity measured by means of a Geiger-Muller counter decreases drastically. Within a few hours reductions of up to 80% are obtained. In such an electrolysis system with electrodes consisting of specially coated beads low-energetic nuclear reactions can be observed. In this case elements are detected in the metallic layers of the beads, which before were not contained in these. Further are measured changed (unnatural) proportions of isotopes. From these transmutation can be inferred, which is used in the cell for the conversion of radioactive elements.

Until now natural uranium and thorium were used as radioactive material. The reproducibility already now is very good. The applicability for commercial purposes, for the reduction of the radioactivity of burnt up fuel elements and for the conversion of plutonium is easy to see“.

At his visit in the laboratory of CETI in Sarasota 28.5.97 Prof. Gruber has witnessed an experiment to annihilate radioactivity with the Patterson transmutation cell. He reported about it: „In the presence of N. J. Olson from Pacific Northwest Laboratory (operated by Batelle for the U.S. Department of Energy) a team of the television station ABC conducted by the science journalist Dr. M. Guillen made recordings for a television program, which meanwhile has been broadcasted all over the country. The original tension voltage - among others a Geiger counter rattled - subsided as the expected success became apparent in the experiment: After one hour 50% of the radioactivity stemming of uranium nitrate were removed, in another half an hour further 13%. Doing so also a considerable lot of surplus heat was produced.

New techniques of this kind to reduce radioactivity have an important advantage: One brings the SET-device there where the radioactive material is situated and reduces the radioactivity on the spot. For the conventional technique, still being in research, in contrast to that the radioactive material first is wrapped in a complicated manner and then transported to a special factory, where radioactivity is reduced at great technological expenditure and use of energy - altogether a procedure which is relatively costly and politically only hard to carry through“.

Patterson cells already can be obtained commercially for research purposes. The same goes for a demo-kit^{<ii>} of the company Trenergy, Inc. of Hal Fox, who has built up the biggest database of the world concerning the theme „Low Energy Fusion“ in the „Fusion Information Center“ at the university of Salt Lake City. He is editor-in-chief of the „Journal of New Energy“.

If one believes the statements on their web-site^{<iii>}, then one is capable of converting 10 g of radioactive thorium in 900 mg titanium and some copper in less than an hour with the kit for experiments LENT-1. Under a pressure of 3200 psi sodium already is said to have fused to gold, something of which alchemists dream, as an unintentional side effect, as researchers in Cincinnati/Ohio say^{<iii>}.

<i>: NET-Journal, Jan. 1997, S. 24

<ii>: see Internet: <http://www.hal-fox@slkc.uswest.net>

<iii>: NET-Journal, 10/11 1997, S. 7

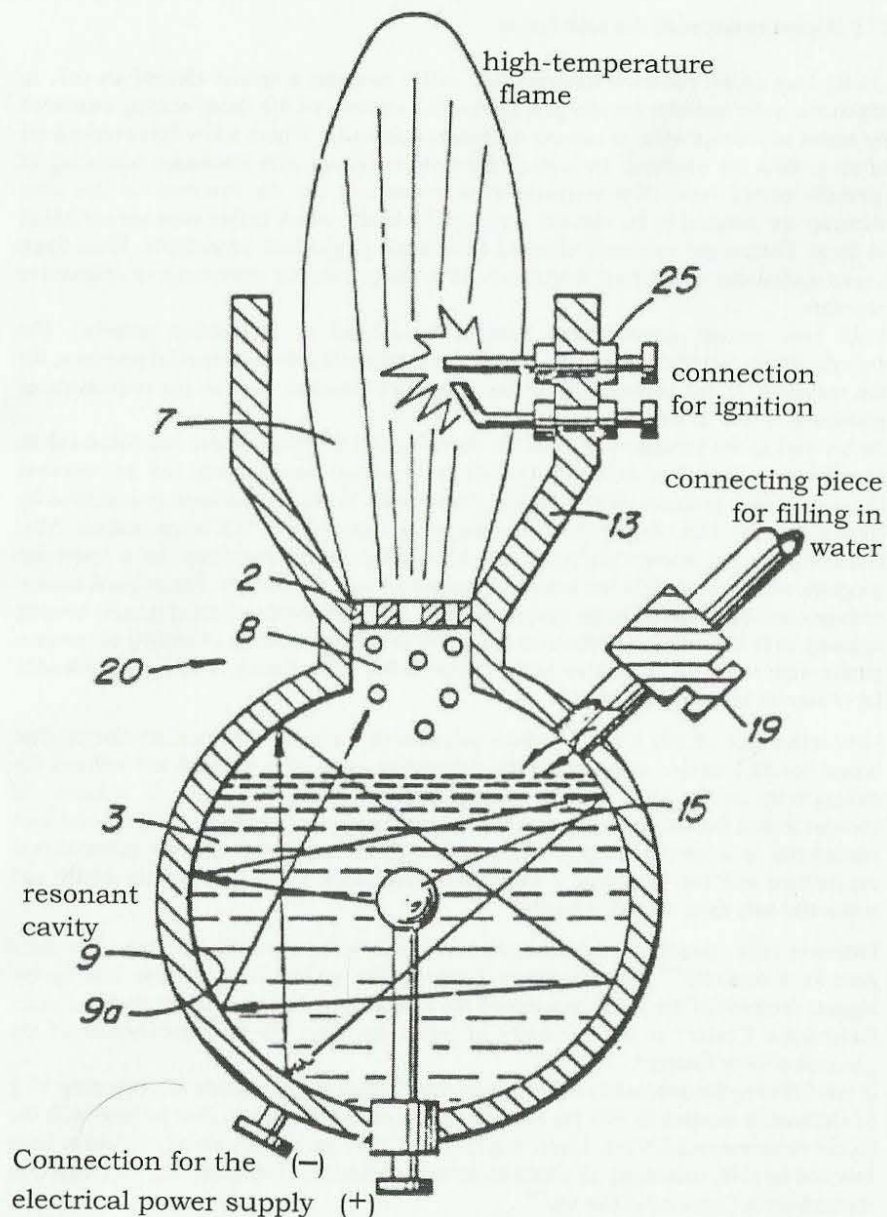


Fig. 17.6: The water-fuel-cell according to Stanley Meyer<i>

<i> H.-J. Ehlers: Stan Meyers Wasser-Zellen-Technik, Raum & Zeit special 7, p. 201, taken from the Canadian patent specification 1234 773 of 5-4-1988

17.6 Water-Fuel-Cell technology

The United States are, just what concerns spectacular techniques like the removal of radioactivity or the transmutation of new materials, obviously still the land of unlimited possibilities. Nowhere the list of researchers of cold fusion is as long as in North America. But there also in many places only is tried and tinkered without visible system or usable theory. Then in many cases unfortunately only a show-effect is to the fore, while construction plans and details concerning the way of functioning, as far as they actually exist, are kept secret. In total there, besides a lot of hot air and wrong hopes, is left behind little to be used and cited.

By the way, in my opinion **cold fusion** has to do very much more with space energy and neutrinos than with hot fusion. How much disaster a wrong referring to and an unusable theory can bring about, has become clear at the example of the "cold fusion researchers" Fleischmann and Pons. They have placed themselves into the scientific offside with their misinterpretation concerning cold fusion.

Moreover are both primarily scientists and theorists. Practice however is, according to general definition, *"if in spite of all it functions!"* The American Stanley Meyer is such a practical man and his water-cell-technology actually seems to function, although he in his 18 patent specifications gives theoretical explanations, which he just as well could have saved himself. With that his effect isn't explained.

An usable interpretation would be that this device, comparable to a cell of a plant during photosynthesis, splits water molecules into its parts by putting on neutrinos. Even without knowledge about space quanta the buggy of Stanley Meyer already runs with a air-cooled 1500 cc VW-engine, and it consumes no gasoline at all. The tank is filled with water; it even may be sea water. The consumption of water lies at 2.8 litres at 100 kilometres and thereby is formed predominantly hot steam again as a combustion product.

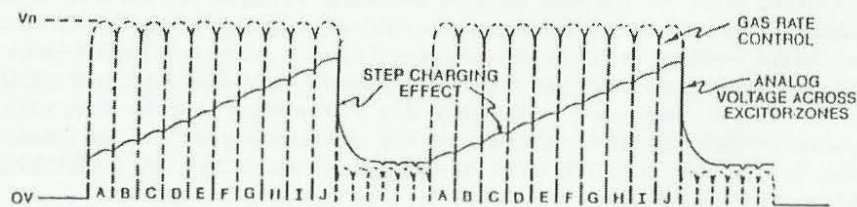
If thus cold water is converted into hot water and at the same time mechanical energy is available, then inevitably another source of energy must be involved. According to my interpretation it must concern the neutrino field. If the here presented details are correct then the over-unity effect lies at approx. 100, the degree of effectiveness thus at 10000 percent.

American companies, with which Stanley Meyer had concluded contracts, should make the "Water-Fuel-Cell technology" mature for series. Also the financing seemed secured. But then per internet the message came, he 21.3.1998 was having supper in a restaurant in Grove-City, as he suddenly jumped to his feet from the table and called out, he had been poisoned. He died on the spot <i>.

A large number of inventors is known, who tap space energy with the help of water. It concerns an increase of the content of oxygen or of the content of colloids, thus an improvement of the water quality. Or it concerns formation of vortices as already in the case of Walter Schauburger, glowing phenomena or also the generation of free energy from the neutrino field. In this concert the concept of Stanley Meyer takes an outstanding place, as particularly efficient, instructive and clearly understandable for us, for which reason we cast our eyes over the design (fig. 17.6 and 17.7).

<i> „Zum Hinschied von Stanley Meyer“, NET-Journal April/Mai 1998, S. 25; see: obituary in Infinite Energy Magazine

A. The pattern of the pulses of the excitation voltage:



B. The wiring diagram:

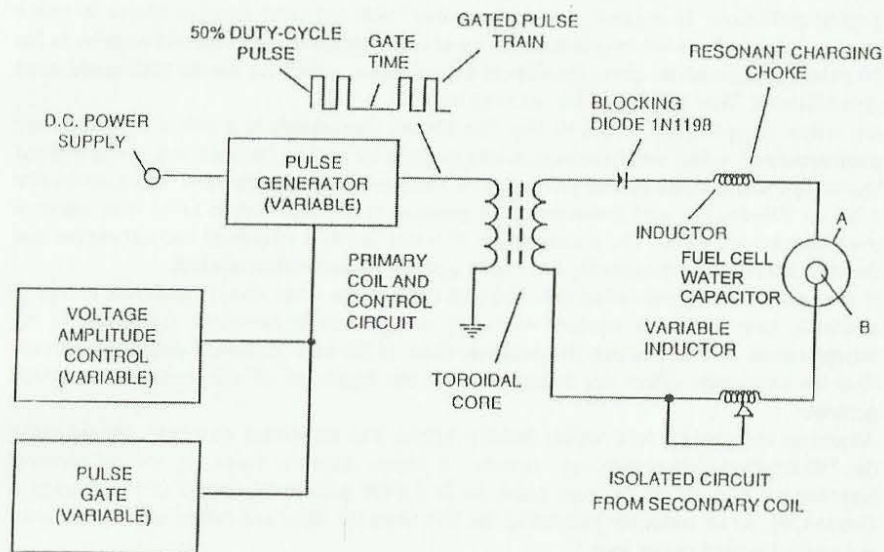


Fig. 17.7: Wiring diagram for the driving of the water-cell<sup>i>

<sup>i>: Stanley, A. Meyer: Process and Apparatus for the Production of Fuel Gas and the Enhanced Release of Thermal Energy from such Gas, 15.06.89, US-Pat. 207,730; International Publ. WO 89/12704; Int.Appl. PCT/US89/02622

17.7 Unconventional electrolysis

Numerous of the by Stanley Meyer used construction principles already have been treated, be it the excitation with pulses of electric tension voltage or the spherical structure of the resonant cavity (fig. 17.6). As a spherical capacitor with the positive pole in the centre and the negative pole at the outside edge it corresponds to the model of the electron and fulfils in an almost ideal way the conditions of an unipolar arrangement according to fig. 15.8 B. The use of certain patterns of the pulses and steep flanks of the pulses (large dU/dt) make possible effects of resonance at frequencies starting at ten kilohertz, in which neutrinos participate increasingly. First the series resonant circuit, consisting of the adjustable, external inductance and the spherical capacitor, is stimulated by means of the current rectifying wiring (fig. 17.7). In the case of resonance, which is carried out by comparison of the inductance, the excitation current drops, whereas the tension voltage at the same time reaches values of more than 1000 Volts. If in addition a neutrino resonance occurs, then the known avalanche effect will occur. The equipment then takes up virtually no current.

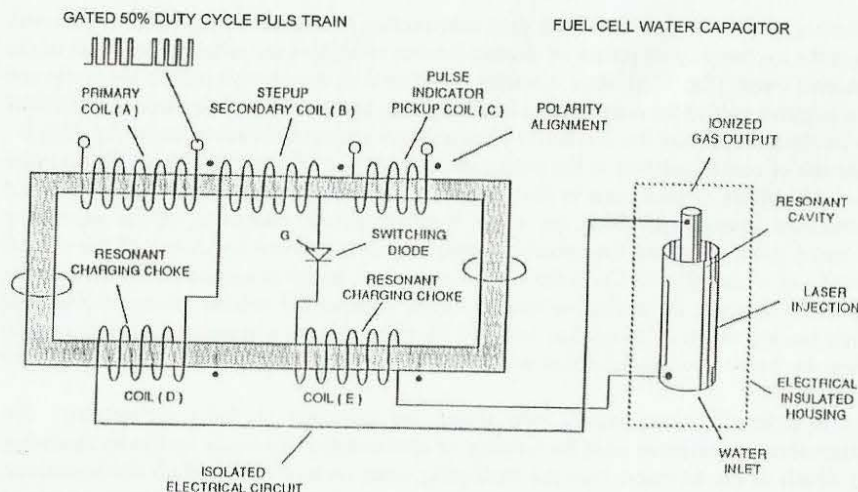
As a dielectric serves water, with which the container is filled permanently. The dimensions are oriented after the velocity of movement of the water molecules according to details of the inventor. Also the oscillating water molecules should go into resonance. Then they can help to materialize the neutrinos. Their rotational energy partly passes to the water molecules and as soon as the neutrinos have been converted to charge carriers, they will take the water molecule from the oppositely charged side and split it without further ado. The oxygen and hydrogen gases leave the capacitor through fine openings at the upper edge of the spherical chamber, which are so small, that no ignition back can occur, and in the simplest case reach a combustion chamber, where they burn again to water as a high-temperature flame (fig. 17.6).

The gases of course also can be guided into the cylinder of a Otto engine and be ignited there, as in the case of the experimental buggy. In the sectional drawing can be seen a filler by means of which, according to the consumption, water is refilled. The round resonant cavity not necessarily has to be spherical. Stanley Meyer more frequently differs from the ideal form and works with a cylindrical symmetry (fig. 17.8), with which obviously in spite of that the goal can be obtained, if perhaps not quite so good. To this compromise the explanations of fig. 15.8 C apply.

If we, to conclude, cast our eyes over the wiring diagram which Stanley Meyer discloses in his patent specification (fig. 17.7 and 17.8)<sup>i>. In the centre is a transformer, which should produce an if possible high tension voltage. A rectifying diode, which takes care that only positive tension voltage pulses serve the excitation, is switched in series with the reaction capacitor, which is filled with water, a fixed and a variable inductance. In that way the positive pole is always situated in the centre of the reaction chamber. If both connections would be exchanged or the diode be turned over, then the neutrinos presumably would materialize in positrons and not in the wanted electrons.

But if one leaves out the diode entirely and one has a tension voltage changing both in positive and in negative direction, then maybe electrons and positrons are equally generated, which annihilate each other under emission of gamma quanta. Doing so no gas is formed, but at most light, as long as the effect of collecting neutrinos isn't lost also. The concept should be worth to be examined more detailed already of pure scientific interest.

A: The high-tension transformer:



B: The driving:

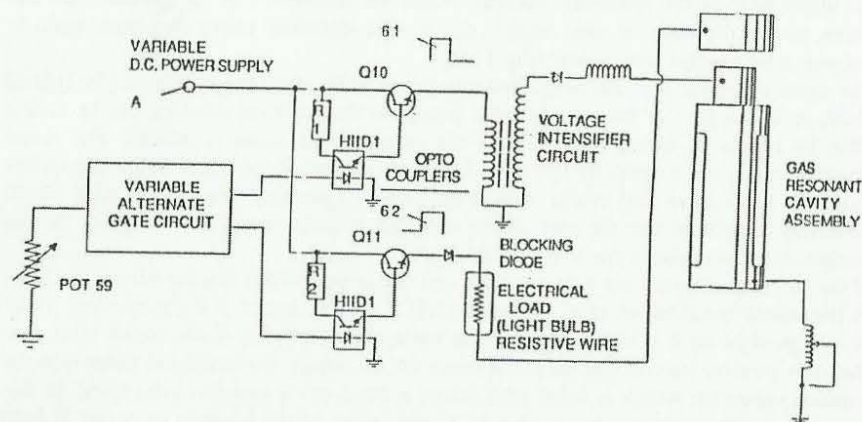


Fig. 17.8: High-tension transformer and driving of the cylindrical water-cell<i>

17.8 Materialization of neutrinos

In the centre of attention of the water-fuel-cell of Stanley Meyer is on the one hand the unipolar arrangement (according to fig. 15.5 B or C) to collect the neutrinos and on the other hand the water for slowing down and materializing. Over and above that a lot was tinkered and tried, as can be inferred from the patent specifications (fig. 17.8). That starts at the coiling technique of the transformer and concerns the experiments with laser stimulation as well as the top part, which according to the inventor should extract the electrons (Electron Extractor Grid). The measures may bring an improvement, but are insignificant for our considerations.

At this place it primarily concerns the question of the materialization of neutrinos. But if such a materialization has to be made complete, if water molecules must be splitted, depends on how long the process lasts. If everything goes very fast, then perhaps it is sufficient that a neutrino for a short time is showing as an electron, before it again oscillates back. In this short time the splitting process already could have taken place. The used neutrinos for that had to be very low-frequent and very slow. They after that could again leave the reaction chamber and fly on as neutrino.

Possibly the fishes, which live in stagnant waters or in the deep sea, owe the slow neutrinos the content of oxygen in the water. Because here no bundling up takes place, the splitting of water takes place rather by chance. The volatile hydrogen atoms escape very swiftly, whereas the big oxygen atoms are left behind in the water.

Now we still don't know how charge carriers can be won. At the RQM unit resonant oscillations of size had been measured and that can be judged as an important clue. If namely a space quantum is slowed down then it becomes bigger. The inverse case we already had made us clear: If a particle is correspondingly fast then it is sufficient length contracted to fit through the tunnel (fig. 6.14).

To slow down neutrinos according to that the target area should carry out an oscillation of size with opposite phase. Organic material and biological systems are excellently suited for that. Every contraction of a muscle brings that to mind. Inorganic matter and our technology however normally don't know this phenomenon. Technical energy converters simply are built up fundamentally else than biological muscle machines.

In historical sources at certain places is pointed to the fact that priests had experimented with quartzes and miraculous phenomena were observed. Of course the question is asked, if such experiments today still can be reproduced. Because the density of the earth slowly increases due to the growth in volume, also the wavelength of these oscillation quartzes is changed. The same neutrino radiation therefore today can't be active anymore. It thus would be completely inappropriate wanting to reject a historical source only because a described effect today doesn't want to function anymore.

Magnetostrictive or electrostrictive material could be a solution. For instance a piezocrystal, which contracts under the influence of an outside field. As an ultrasound converter an applied alternating voltage leads to the emission of a sound wave. If we reverse the function, then a received longitudinal wave should lead to an electric tension voltage and then at last the materialized charge carriers could be taken off.

<i> Stanley A. Meyer: Process and Apparatus for the Production of Fuel Gas and the Enhanced Release of Thermal Energy from such Gas, 15.06.89, US-Pat. 207,730; International Publ. WO 89/12704; Int.Appl. PCT/US89/02622

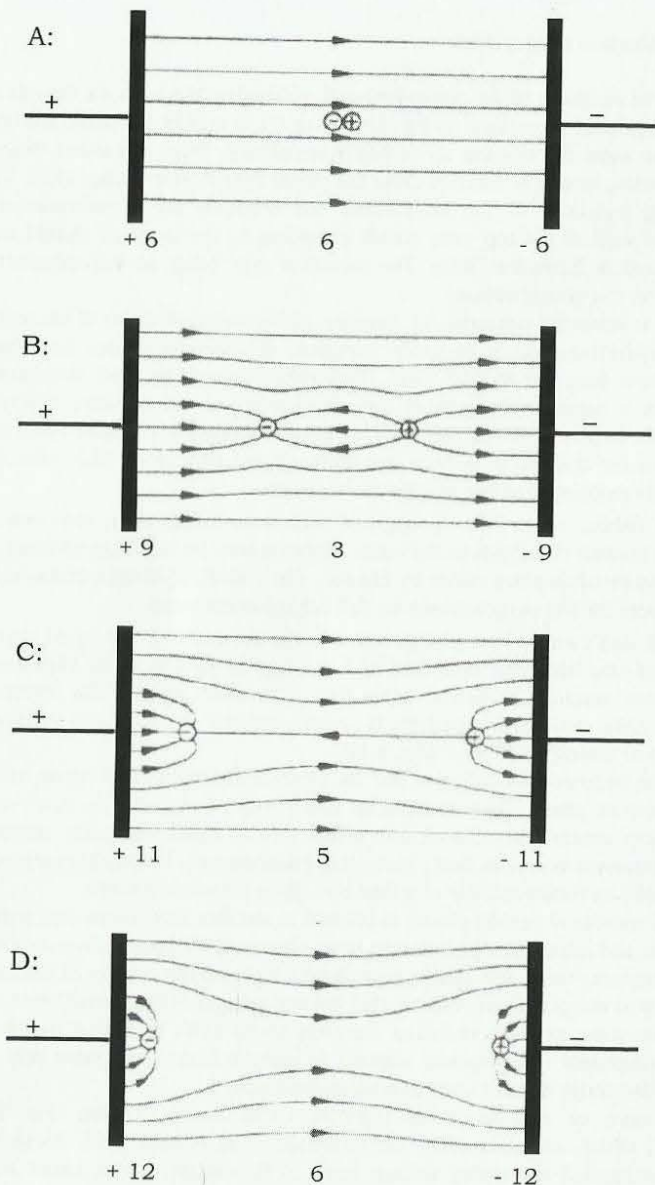


Fig. 17.9: The course of the field in the case of a glow-discharge^{<i>}
 (The numeric values indicate the active field lines,
 as they can be read from the representation).

<i>: K. Küpfmüller: Einführung in die theoretische Elektrotechnik, 12. Aufl., Springer-Verlag (1988), S. 197

17.9 Oscillation of size and luminescence

There exist substances, which at high temperatures start to glow. In the sense of the theory of objectivity presented in the first part of the book in the case of temperature it actually concerns an oscillation of size of the involved elementary particles (fig. 8.3). If this oscillation of size lies in the visible frequency range, then we can directly perceive it and it can be used for instance in a light bulb for the purpose of lighting.

In the case of an arc, fluorescent tubes or glow-discharge lamps light is formed as well even without a thermal effect. These glowing phenomena are called luminescence. They can be caused by chemical processes, by friction, by crystallization or by electric fields. As can be shown speedily, in these cases it also concerns an oscillation of size.

If we for that consider the model on the left (fig. 17.9). Between two electrodes there is a non-conducting gas, e.g. air. If now a tension voltage is applied then, under the influence of the electric field, some gas atoms are splitted into positively charged ions and negative electrons (case A) and pulled apart (case B). This process of enlargement of the glow-discharge fast as lightning comes close to that of the thermal oscillation of size and obviously in the same way is perceived as light.

The ionised gas parts are attracted by the unlike poled electrodes and move towards these (case C, D). Whoever takes the effort to count the number of the field lines, will find out that between both electrodes the electric field drops, whereas it at the same time increases at the electrodes. The first thing causes that the process of ionisation is stabilized by itself and a state of equilibrium will result; the resulting current takes a constant value.

The increase of the tension voltage at the electrodes on their behalf causes that an arc remains standing or the glow-discharge lamp glows on, even if the feeding voltage is reduced. For this reason a fluorescent lamp needs a starter, since the network voltage is too small to start the effect of luminescence.

We indeed know, that the gain of light of a fluorescent lamp is at least three times better than that of a light bulb. As a rule a degree of effectiveness in spite of that can't be given, since it merely concerns a comparison measurement in the case of the measurement of the lighting intensity with a luxmeter. It hence can't be excluded, that we already are dealing with an over-unity effect in individual cases and neutrinos are involved in the effect of glowing.

A necessary oscillation of size would be present, as the perceivable noises of open spark gaps prove. Also in the case of lightning the thunder occurs as a consequence of a longitudinal oscillation of size and at the same time a glowing phenomenon occurs as a consequence of materialized neutrinos (fig. 14.11). It almost is obtruding a scientist that here the same principles are at work.

One however hardly can prove that neutrinos are involved in the luminescence, because the configuration is symmetrical with regard to the resonance of neutrinos and just as much particles materialize as anti-particles, which afterwards again annihilate completely as an impulse of light. They hence can't be measured directly. It gets interesting if an asymmetrical arrangement with unipolar character is chosen.

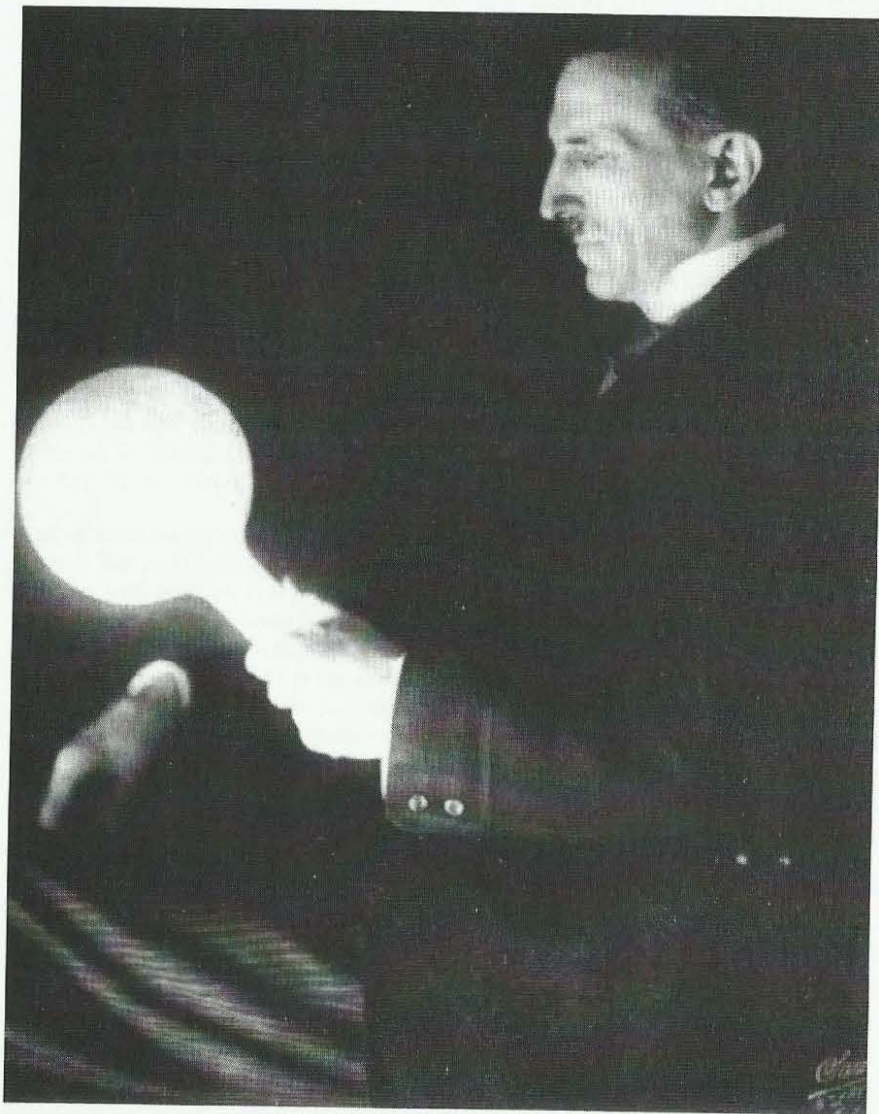


Fig. 17.10: Tesla with a wireless light bulb^{<i>}

^{<i>}: A Sarony-Portrait from 1894, Tesla-Museum, Belgrad

^{<ii>}: R. Hiller, K. Weninger, S. J. Puttermann, B. P. Barber: Effect of Noble Gas Doping in Single-Bubble Sonoluminescence, University of California, Los Angeles, USA, Science, Vol. 266, 14.10.1994, P. 248-250

and: D. Lohse: Wenn sich der Schall in Licht verwandelt, Mechanismus liegt noch im dunkeln; (University of Twente, NL) Mitteilungen der DFG 4/98, S. 19-21

17.10 Phosphorescence and sonoluminescence

Let us first look at the observable after-glowing at fluorescent lamps or at a screen, the phosphorescence. It presupposes a storing effect, and that in accordance with prevailing textbook opinion can be traced back to the excited state of some atoms. Doing so electrons in the atomic hull change from one level of resonance, an instable state of energy, to another orbit, which represents the ground state. Doing so the difference in energy is emitted in the form of light. The process obviously not only takes place as luminescence during the switching on of the excitation voltage, but also as phosphorescence after the switching off.

An enveloping electron now doesn't fly as a tiny planet around the nucleus, but occupies the entire orbit as an inflated spherical vortex (fig. 5.5). Seen from the outside it is a matter vortex. It however sees the enveloping electrons on the further on the outside lying orbit from the inside and there they are showing as anti-matter vortices. As long as the distance of respect is kept, nothing happens. If however an inner spherical vortex presses to the outside or the outside one to the inside, then the incompatibility of the vortices takes effect and both annihilate under emission of a photon. In this respect the explanations of the vortex model are very helpful.

But now, after this flash of light, two electrons are missing in the atomic hull. The positively charged atomic nucleus never would allow this loss. Replacement has to be fetched and that actually only can stem from the neutrino field. Therefore the enveloping electron doesn't change the orbit immediately, but instead has to wait, until a suitable neutrino passes by, with help of which the game of changing places can be executed. This explains the time delay and gives reasons for the observable after-glowing.

The form of the unipolarly charged sphere (according to fig. 15.8 B) forms almost ideal prerequisites for an interaction with neutrinos and the step-like change of size from one orbit to the next ideal prerequisites for their materialization. The longitudinal wave connected with the change of orbit without doubt can be called a high-frequency sound wave. It however can't be detected because of missing gauges for such high frequencies. But if we take the frequency down into the range of the ultrasound, which can be handled technically, then effects arise which brilliantly prove this interpretation and the participation of neutrinos in the luminescence.

The not understood phenomenon is called sonoluminescence and at present is researched at numerous high schools primarily for academic interest. The structure is conceivably simple. One takes a ball of glass filled with water and positions at the edge one piezocrystal next to another. Then one with the piezo loudspeakers, operated with the same phase, sounds the whole with ultrasound and see there, the water glows mysteriously! The sound waves change the pressure. Inferring from the observations, during the phase of low pressure small bubbles are formed, which at the following rise of pressure collapse and emit a ultrashort flash of light. There thus takes place an oscillation of size, which leads to the luminescence phenomenon!

So far so good; but such a flash of light is much shorter than the collapsing of the gas bubble lasts. With less than 50 picoseconds it is faster than the otherwise usual atomic transitions of electrons. The whole thing obviously has nothing to do with this kind of luminescence. Also the spectrum doesn't fit and finally the over-unity effect lies at one trillion, the light energy thus is 10^{12} times larger than the energy part which is taken up from the sound wave by every atom^{<ii>}!

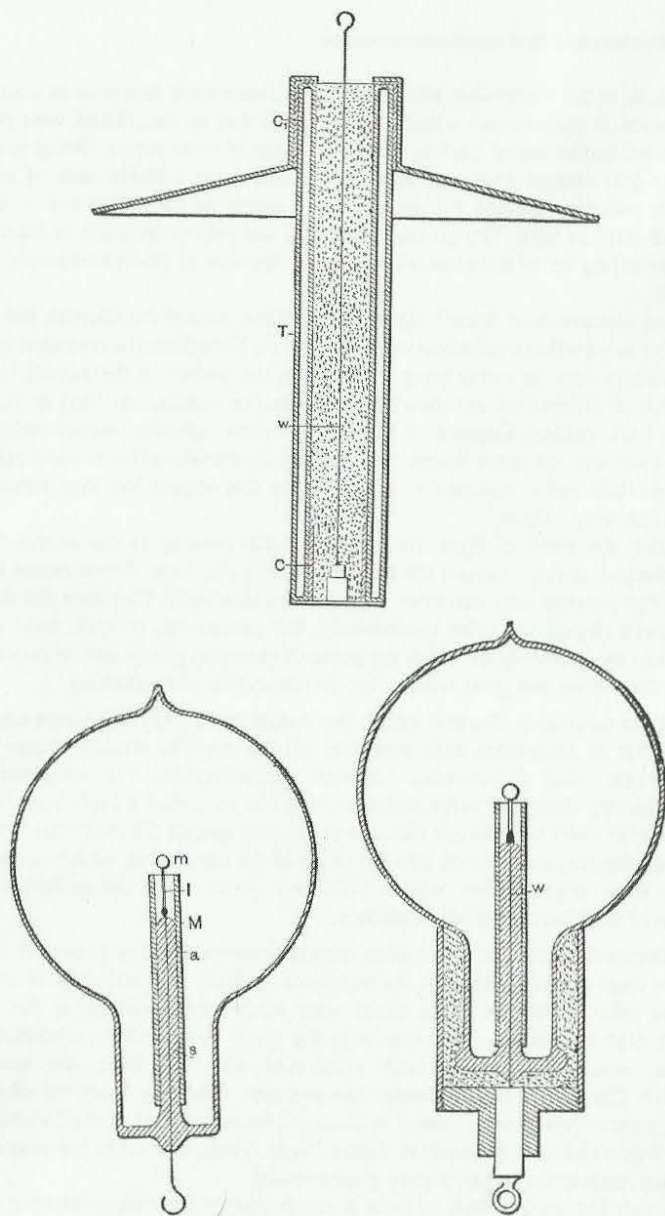


Fig. 17.11: Light bulbs according to plans of Tesla^{<i>}

^{<i>}: N. Tesla: Experiments with Alternate Currents of High Potential and High Frequency, Lindsay Publications Inc, ISBN 0-917914-39-2, Fig 18, P. 70+103

17.11 Discussion concerning the use of the weak interaction

In the case of the luminescence the conditions lie similar like those for lightning. The science of today it is true has some problems of explanation at detail aspects, but again and again manages to protect the ivory tower of physics from collapsing, with supporting auxiliary explanations. But at the latest in the case of a unipolar arrangement, in the case of a ball-lightning or the sonoluminescence, the participation of the neutrinos clearly comes to light, the auxiliary concepts prove to be unusable.

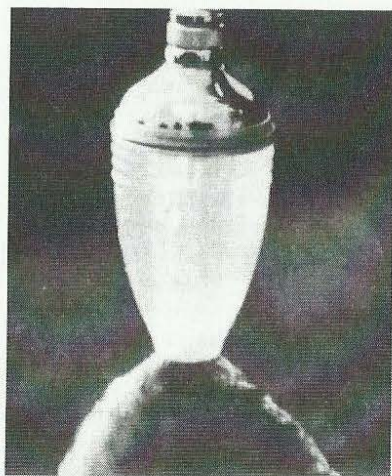
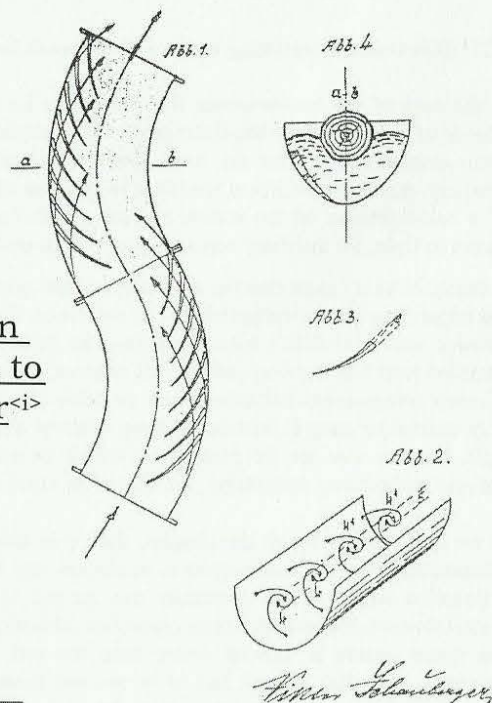
It surely is no accident that the discoverer of the neutrino radiation also was the first, who has experimentally investigated the luminescence. The lamps of Tesla (fig. 17.11) all were without wear and didn't have filaments like those of Edison. They however had to be operated with high tension voltage and relatively high frequency. Both a single-wire and a wireless transmission technique were possible (fig. 9.5 and 9.7). In his laboratory Tesla only needed to hang a fluorescent lamp without any return cable on a wire, then he had light. Famous also are the pictures on which he holds a lamp in his hand, which glows entirely without any connection, but only if he takes it in his hand! (fig. 17.10).

If we again turn through the chapter, then it is remarkable that in most cases, from the transmutation to the luminescence, neutrinos can be used for reason of their resonant interaction which in the proximity can be put equal to the weak interaction. A real materialization however poses an enormous difficulty. If namely the translatory motion of the space quanta is slowed down, then the risk exists that for balance the rotation increases. But that as well has to be slowed down for a materialization! Only if both processes of slowing down take place, the goal can be reached. In that case the described cooling down effect occurs.

For a measurement technical check it therefore offers to record the slowing down of the translatory motion and the collecting of the neutrinos by means of the measurement of the radioactive decay of a sample. And to read the materialization as the slowing down of the rotation from a measurement of temperature. In addition are helpful proofs about oscillations of size, glowing phenomena and deviations in the balance sheet of energy. With that it should be able to obtain a system for the exploration of these phenomena with the goal of a practical exploitation of the neutrino radiation for the benefit of humanity.

A:

Floating installation
for wood according to
Viktor Schaubberger^{<i>}



B:

Ancillary part for
shower according to
graduate engineer
Wilhelm Martin.^{<ii>}

Fig. 18.1: Mechanical whirling of water

<i>: N. Harthun: Naturgemäße Strömungsführung nach Viktor Schaubberger - Analyse einiger seiner Patente und Zitate; MuT Nr. 4, 1980; s.a. Kap. 9.2

<ii>: O. Alexandersson: Lebendes Wasser; W. Ennsthaler Verlag Steyr, 1993, S. 156

<iii>: V. Schaubberger: Die Entdeckung der Levitationskraft, Implosion 112, S. 39.

<i4>: Do we owe the taste of bubbling spring water to neutrinos?

18. Physical phenomena

In this chapter it on the one hand concerns indirect effects of the resonant interaction and on the other hand effects of gravitation and levitation.

18.1 Water as a catalytic converter for neutrinos

Already the Austrian forester Viktor Schaubberger has pointed to glowing phenomena at whirled water. He first had observed such in nature at torrents and waterfalls in the Alps. Later he was capable, to produce and to demonstrate this effect even artificially^{<iii>}. One could speak of hydroluminescence, where still the question would be left open, how it actually functions.

Already in chapters 4.10 and 4.11 has been talked about the special properties of water. It here at first concerned the property of transport of a vortex, which even is capable to bind particles in the vortex, which are heavier than the whirling medium itself. Schaubberger had become famous by letting build floating installations, in which not only tree-trunks, but also gravel could be transported down to the valley, without the sides of the channel actually having been touched by the rubble. This phenomenon has been examined and confirmed on the scientific side^{<iv>}.

Basing on this principle today different devices for processing water are offered and sold, which bind lime, mineral materials and suspended matter in the vortex and in this way prevent deposits in the pipes. The methods, to whirl the water, are however very different. Some whirl the water mechanical, others magnetically and again others electrically.

Here the dipole nature of the H_2O -molecules has an effect. If I turn a water molecule with its electric charge distribution, then from the moving charge a magnetic field results. If thus in the pipe a hydrodynamic flow vortex is produced, then an electric and a magnetic vortex, the potential vortex and the eddy current, are the result (see fig. 4.2).

The wanted flow vortices vice versa also can be obtained, by guiding bubbling whirled water past permanent magnets, or by feeding in alternating magnetic fields with the help of coils, or finally by working with pulsed electric potentials. Each of these systems, operated passively or actively, has its specific advantages and disadvantages (fig. 18.1 B and C).

It can be assumed that with the vortices also the water quality is changed. As a rule the content of colloids increases, due to which the **surface tension** falls. In the colloids negative ions are bound, for which reason also the **electric conductivity** decreases. Finally the **content of oxygen** increases and that actually only can come from an electrolysis. The neutrinos thereby are suspected^{<iv>}.

As an extreme dielectric medium water favours the formation of potential vortices, which immediately after their formation contract swiftly. This *oscillation of size of the electrically charged potential vortices* makes possible actually an interaction with neutrinos, and that on the one hand has as a consequence the **water splitting** and the increase of the content of oxygen in the water and on the other hand the above depicted, observable **glowing phenomenon**, the hydroluminescence.

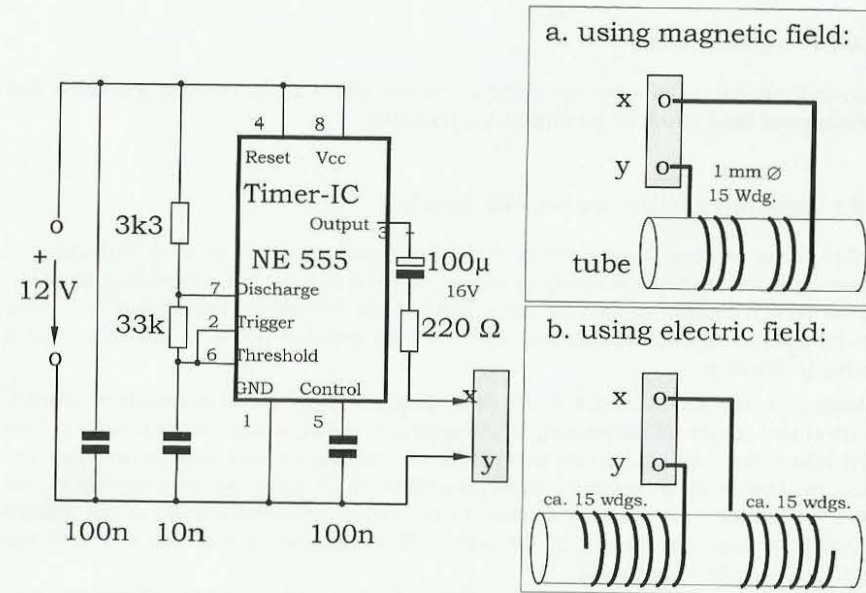


Fig. 18.1 C: Wiring diagram for a simple water processor with pulsed field (2 kHz rectangular signal)
a: for magnetic field excitation
b: for electric field excitation

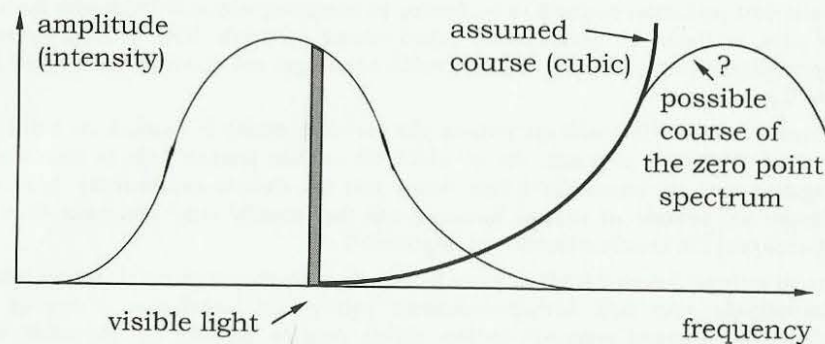


Fig. 18.2: The spectrum of frequencies of light and of the zero point radiation.

To complete in fig. 18.1 C the wiring diagram of a simple water processor is shown, which works with pulsed electric (b) or magnetic (a) fields.

If we temporarily again leave the theme water and take along the notion, that it must be attributed a great importance in connexion with the interaction and the materialization of neutrinos.

18.2 Background and zero point radiation

What happens really, if cold matter or interstellar gas molecules are hit or touched by the everywhere present neutrinos? Then it can be expected that oscillations are being stimulated and as a result the temperature slightly increases. If we thus at a space flight hold a thermometer out of the shuttle window, then we will measure everywhere such a remaining temperature of a few degrees Kelvin, which is called **cosmic background radiation**.

By popular scientific small talkers the background radiation is called remnant of a so-called Big Bang. It even is misinterpreted as evidence for the **Big Bang**. Even if a certain value of entertainment can't be denied, the Big Bang from a physical view until now only has raised questions and contradictions.

If we stay at the fact that **oscillating neutrinos** depending on their radiation density and velocity of propagation produce a **thermal oscillation**, which can be detected as a slightly increased temperature. To measure that we don't need immediately to undertake a space flight. We also can install the thermometer in an artificially produced vacuum. In vacuum physics out of ignorance of the relations the neutrino radiation then is called **zero point radiation**.

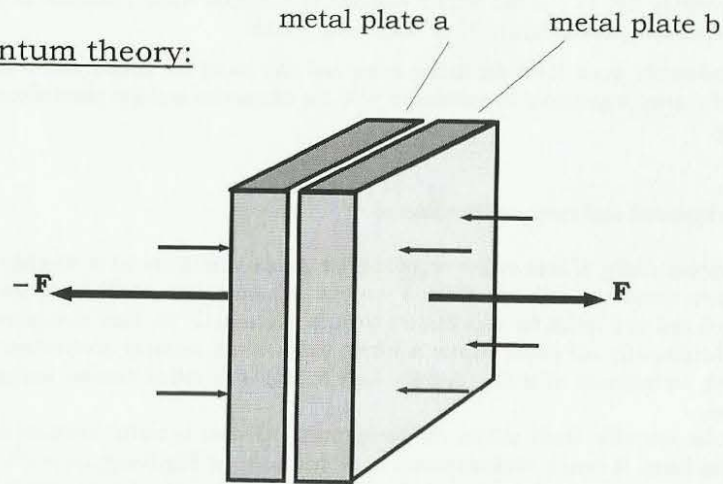
In the case of the neutrinos it of course concerns an oscillation around a mean value, which for a symmetrical form of oscillation has the value zero. The term nevertheless is misleading and chosen very unfortunate. After all we don't speak of zero point current in the case of alternating current!

Since every supernova and every black hole emits neutrinos and correspondingly in physical experiments until now no preferred direction could be determined for the zero point radiation, it is taken as homogeneous and isotropic in space. From the Lorentz invariance again is inferred a cubic course of the zero point spectrum, an increase of the radiation intensity with the third power of the frequency. With this assumption the radiation density of the vacuum however strives with increasing frequency towards infinity. Here an error has to be present in the considerations!

I proceed from the assumption that in the case of the spectrum of the neutrino radiation it rather concerns a spectrum of resonance, the maximum value of which lies above the frequency range measurable with devices of today. It of course would be very important to find out, where the radiation maximum lies, but without being able to measure it that lies unfortunately in the range of pure speculations (fig. 18.2).

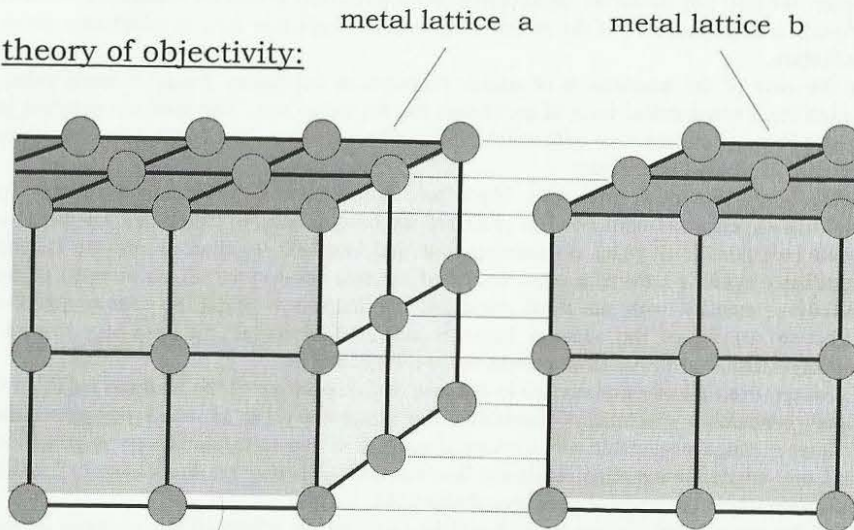
Half the wave length in any case should be tuned to the length of the antennas of the energy centres of the cells, the mitochondria and the chloroplasts which are capable of photosynthesis. In both cases the head diameter of the ATPases amounts to approx. 5 nanometer. It would be obvious, if the resonance point would lie here. But it could as well lie at still smaller wave lengths in the domain of molecular dimensions.

quantum theory:



outside cause^{<i>}: pressure force by bombardment of quanta?

theory of objectivity:



inside cause^{<i>}: levitational force by resonance effects?

Fig. 18.3: The Casimir effect

18.3 The Casimir effect

If this zero point radiation actually would be the cause of the Casimir effect, which is generally assumed today, then neutrinos would have to be involved, if the zero point radiation would be to put equal to the neutrino radiation. The effect even is quoted as evidence, but I have my doubts.

The experiment is relatively simple and functions also in a vacuum. Two absolutely plane and smooth polished metal plates are placed very close to each other. Doing so the distance should only amount to one thousandth till one millionth of a millimetre. If the force, with which both plates are attracting mutually, is measured then it exceeds by far the gravitational force. We are dealing with an unknown force, neither electric nor magnetic.

Because the force of attraction still arises near the absolute zero of temperature, some make the zero point radiation responsible. In our translation that would be tantamount to the neutrinos exerting a pressure from the outside on the metal plates, if need be with their small rest mass, as far as this should not be based on an offset-error of the detecting devices. For that the plates would have to damp the neutrino radiation effectively and by mutual shielding reduce the radiation pressure from the split. The question is asked, if the from the outside hitting bombardment of quanta, as it is called, actually can exert a pressure which would be compatible with the nature of the neutrino radiation.

If we now try an entirely other interpretation, which does without the postulating and designing of new force effects. Now the from the unified theory won interactions according to table 15.1 form the basis. In the Casimir effect, as said, neither magnetic nor electric forces are involved, so that open field lines and the corresponding force effects (1 till 4) are ruled out. It has to be the work of closed field lines and that in the static case we know as gravitation (5). Now the mass of the metal plates is too small, as that an acceptable force of attraction of masses could result.

The measurable force is much larger, even if it according to its nature could be a gravitational force. Here oscillations, as they actually take place in the hull of the metal atoms, seem to play a role. If between the oscillations of the two plates standing opposite occurs resonance, then a levitation is possible (6), which describes an oscillating interaction, produced by closed magnetic field lines^{<i>}.

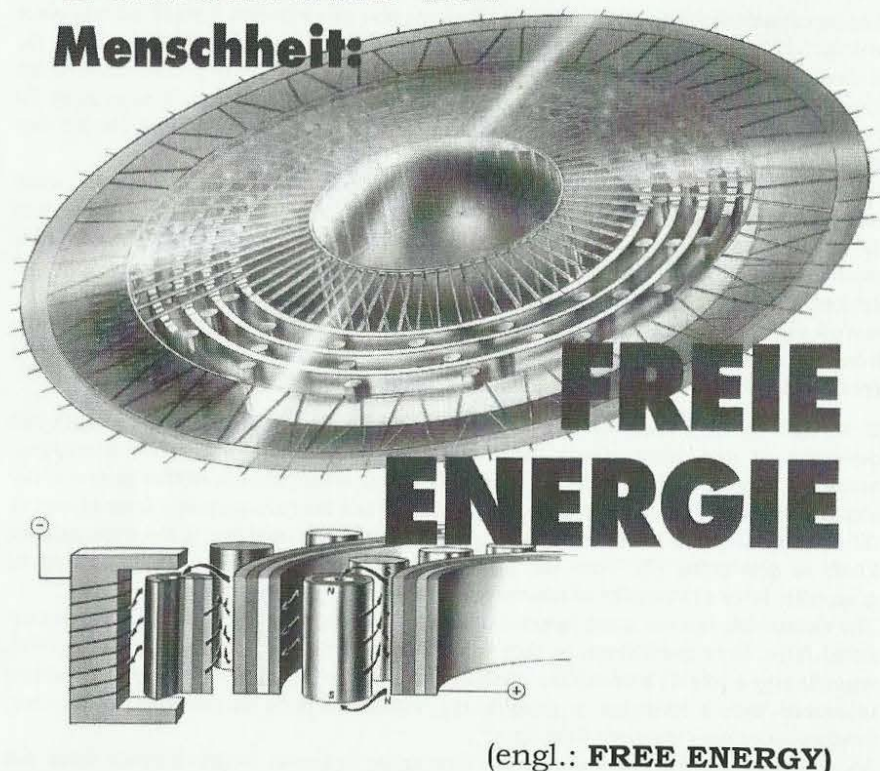
At extremely low-frequency signals this interaction is known as gravitational wave and object extravagant and costly physical experiments.

^{<i>}: The question, which interpretation is correct and which one should be rejected, could be verified as follows: at first the force between two plates of a certain metal and afterwards that of another metal has to be measured. If in a third experiment a plate from the first and one from the second experiment are brought together and the force effect goes back measurably, then the quantum physical interpretation would be wrong clearly. With that would have been shown that here resonance effects are used, which presuppose an identical metal lattice structure of both plates.

If the force effect however doesn't go back, then both statements are possible, then one has to think up another experiment.

(engl.: DREAM OF HUMANITY:)

Wunschtraum der Menschheit:



(engl.: FREE ENERGY)

Fig. 18.4: The flying disc of Searl on a german title page. <i>

18.4 Effects under high tension

It crackles in the laboratory of high-tension. The air smells electrically charged. Only in a corner someone sits and waits with much perseverance and patience, until something happens. Then he lets thunder down lightnings of several millions of Volts on a small sample. It flashes and crashes and still nothing happens.

No, it doesn't concern Tesla! Tesla has worked purposeful. In addition has Tesla only called himself inventor. But the man in the corner feels himself a discoverer and as it is proper for a discoverer, he has immediately named the effect after himself. As a real American he lets market himself and his discovery by the media and a video tape.

Doing so he obviously doesn't know at all, what he wants to have discovered, of what this **Hutchison effect** actually consists. It perhaps is an event of pure chance, for which he sometimes has to wait hours. If it very suddenly would occur, then it is a real potpourri of all already discussed effects: metal spoons are bending (fig. 14.13), massif steel rods are breaking, light effects are being observed (chapter 17.9 PP), water starts to dance and to cook (chapter 18.1), without getting hot and finally do some samples take off and fly crosswise through the room. He then speaks of anti-gravitation.

In the video tape can be seen, how he brings about a physical length contraction as a result of a locally produced field concentration with two as an interferometer configured Tesla coils. In a bottle for instance the air volume is changed. This confirms the correctness of the here presented theory of objectivity (chapter 6.6 PP).

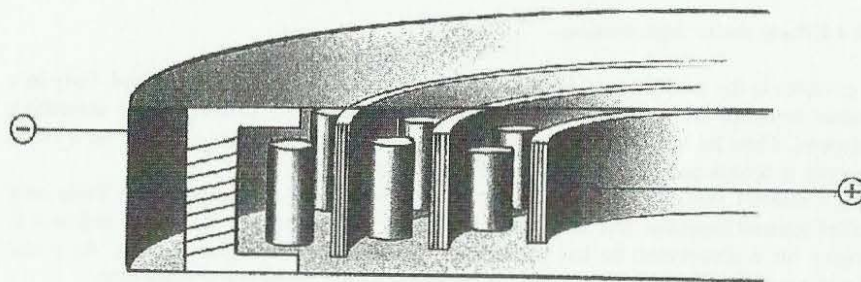
In any case no-one is amazed more about the results of chance than John Hutchison himself. Overwhelmed by the magic, the charm of the effects and the feeling to be able to move freely outside the trodden out ways of physics, he still sits in his corner with the video camera and waits, until finally something happens again.

There is worked with tension voltages, which are considerably higher than 511 kV, the calculated tension voltage of their own of the charge carriers (fig. 7.1). One thus by no means has to be amazed, if under the influence of several millions of Volt electrons are taken apart and metallic objects are breaking or bending.

The extreme tension voltage and field change we owe an oscillation of length and of size, which spontaneously can lead to an interaction with neutrinos. Materialized neutrinos again are responsible for glowing phenomena and for the electrolysis of water, which under the impression of the rising gas bubbles seems to dance and to cook. For my readers and participants of the energy technical seminar therefore models of explanation are available.

One effect we still haven't discussed and analysed more in detail: the antigravitation resp. the levitation. As long as no reproducible field conditions are present and the chunks are accelerated in any arbitrary direction, it will be difficult to understand the physical course of a levitation.

In chapter 9.3 we already had become acquainted with and discussed a levitation device with the flying disc of John Searl, for which the field conditions are comprehensible. This time we should have a somewhat closer look at the flying device (fig. 18.4) <i>



disc rebuild to a power generator

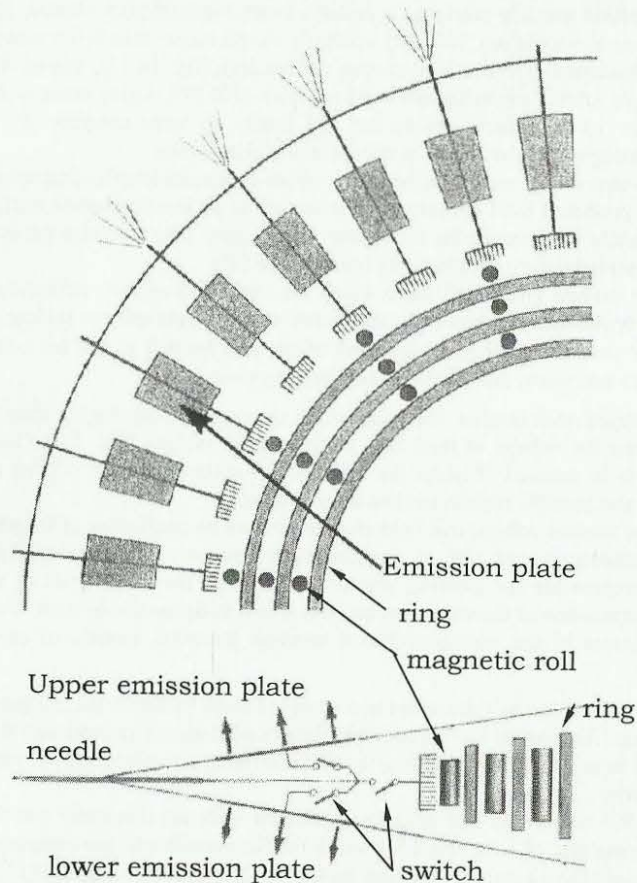


Fig. 18.5: Concerning the controlling of the flying discs according to Searl. <i>

<i>: H.Schneider, H.Watt: Dem Searl-Effekt auf der Spur, Special 7, Raum & Zeit Dokumentation aus dem EHLERS Verlag, Sauerlach, 1. Aufl. (1994), S. 183

18.5 Flying discs

The Searl-disc can be calculated relatively good with the Faraday equation concerning unipolar induction. To estimate the order of magnitude, we just suppose the roller magnets produce an induction of one Tesla and the radius is one meter, then between the centre of the flying disc and its edge 511 kV is applied, if the revolutions per minute has reached the value of 80000 revolutions per second. As soon as the revolutions per minute is reached, the **neutrino conversion** can start.

The at the edge of the disc arising corona, which consists of individual electrostatic discharge flashes, takes care for the necessary dU/dt , by every blow and every spark is drawing the potential for a short time towards ground. The tension voltage jumps in swift order between values of above 511 kV and zero Volt to and fro. In connection with the already discussed **unipolar field configuration** neutrinos are being collected in this way.

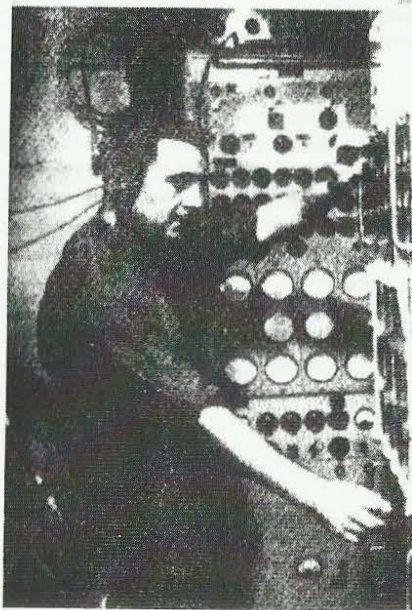
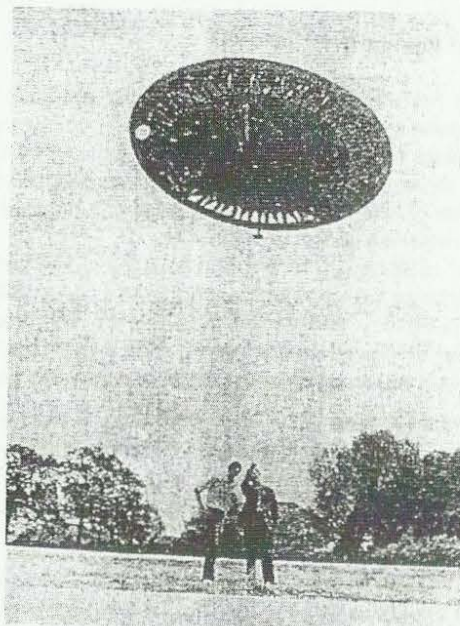
A technological challenge represents the layered construction of the roller magnets and the rings, which have to withstand extreme centrifugal forces (fig. 18.5). Friction however is not a theme, since on the one hand the air inside the disc ionises and a vacuum is formed and on the other hand the air split between rollers and discs increases by the field dependent contraction of the metal parts.

Actually one in this case by no means can speak of antigravitation, because the gravitation isn't really vanishing. The disc even in flight still is heavy tons. Here merely a resonant interaction is built up which is larger than the gravitational pull of the earth. The disc is attracted by the cosmic source of neutrinos, with which it has built up the resonance. Exactly there it will fly.

The by Searl designed controlling <i> in my opinion actually can't have functioned satisfactorily. He uses emission plates, as he calls them, which alternatively are switched on by means of switches and are able to form electrostatic forces with some air charge carriers. In reality the drive probably is comparable to that of a sailing ship, for which the wind always blows from one direction. The ship isn't pushed by the wind, as one erroneously could think, but rather by the under pressure behind the sail pulled forward. Without steering facility the object always is driven in direction of the drain. The sailor would say, the ship without helmsman drifts towards lee. Searl in this way has lost all flying discs which were started. By using solar neutrinos they presumably have fallen into the sun and burnt. The controlling should function analogous to a sail, then one would stand a chance, by "traversing" against the "wind", to sometime again come back to the starting-point.

<i>: H. Schneider, H. Watt: Dem Searl-Effekt auf der Spur, Special 7, Raum & Zeit Dokumentation aus dem EHLERS Verlag, 1. Aufl., Seite: 183

Start of a
Searl flying
disc



John Searl in his
controlling headquarters

Fig. 18.6: The remote controlled flying discs of John Searl. <i>

18.6 Propulsion with neutrinos

In search for an ideal propulsion system for spacecrafts the flying discs of John Searl still have demonstrated a further possibility. After the start occasionally were left strange particles on the ground, which hadn't be there before. The flying device obviously had materialized them and dropped them at the start.

With this materialization of neutrinos the chance is showing of a very efficiently working recoil propulsion. If namely the neutrinos are converted into matter then they by that gain back their rest mass. If this takes place in flight then the materialized particles also bring along kinetic energy. It then works as a jet engine for which the direction of the jet can be directed and in that way the vehicle can be controlled comfortable.

In the case of the Searl-disc the materialization of neutrinos rather happens as a not understood side effect. In the case of a systematic use however the principle will show a characteristic property. Instead of a vapour trail a **beam of light** will shine out of the flying object in the direction of the emitted particles, but it will break off abruptly after a certain distance.

To blame is the part, which has become anti-matter, which it is true as well contributes to the recoil, but simultaneously annihilates with incompatible particles of matter under emission of particles of light. If in some distance all antiparticles are used up then also the beam of light comes to an end.

It here concerns necessary properties of a corresponding propulsion technology for spacecrafts, which don't have to drag their propelling energy along with them. Our space technicians finally could handle another than the „hammer throwing method“, in which case the "hammer" by means of terrible fuel consumption after a phase of acceleration only staggers uncontrollable through space under the influence of its inertia.

With a neutrino propulsion on the other hand one at any time can accelerate or brake. It will strongly influence the field around itself, so that can be reckoned that for every acceleration a field dependent change of size should be perceptible by an outside observer. If therefore a corresponding flying device is accelerating then it will suddenly become smaller and that then looks so as if it would have moved away with a jump without temporal delay, but that isn't the case at all.

The jerky movements only would be a result of the perception with our eyes by means of the propagation of the light. Since the passengers are exposed to the same field, they change their body size along with that of the vehicle. They actually notice nothing of an apparently infinite acceleration, which only observers on the outside would observe and which indeed no living being could stand.

Nowhere the explanation crisis is larger than in space travel! The theory of objectivity represents a real help, because it perhaps as the only one puts us in a position to conceive and understand not understood observations as necessary technological consequences. Only by uncovering parascientific as purely physical phenomena man of today will be able to free himself from the constraints of magic and his own illusions.

In the until now discussed cases resonant or other force effects are being used, whereas the gravitation remains unchanged. Closed field lines after all cannot be influenced, normally at least. Perhaps an indirect possibility exists to have an effect on the gravitation?

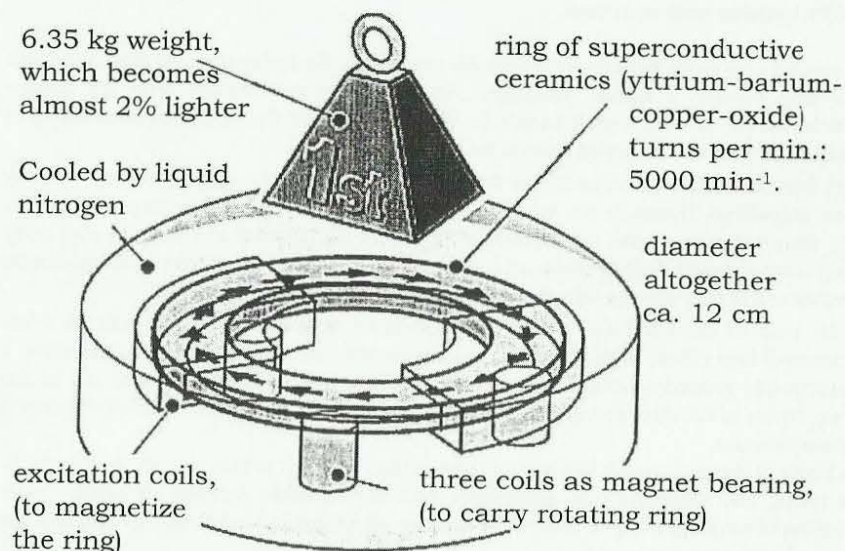
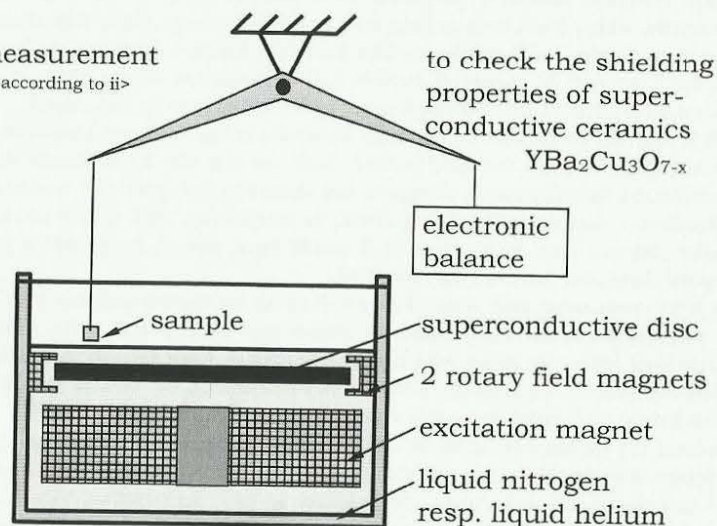
A. Test facility^{<according to i>}B. The measurement setup^{<according to ii>}

Fig. 18.7: Experiment for the manipulation of the gravitational pull of the earth.

- <i>: Schneider: Anti-Gravitation im Labor nachgewiesen?, NET-Journal Januar 1997, S. 14,15; s.a. Internet: <http://www.keelynet.com/gravity/fingrav.htm>
 <ii>: E. Podkletnov, R. Nieminen: A possibility of gravitational force shielding by bulk YBa₂Cu₃O_{7-x} Superconductor, Physika C 203 (1992), P. 441-444
 <iii>: Force field Implications of Anti-Gravity, The Journal of Ideas, Art.191, 7.9.95

18.7 Antigravitation or levitation

The night already had fallen over Finland, but at the University of Tampere the light still was on. Then a scientist put his bearded head through laboratory door and with a "hello folks" blew the smoke of his pipe over the cryostat for the examination of superconductive materials. The scientists were speechless, because the smoke seemed to hit an invisible wall and was drawn upwards in direction ceiling almost at a right angle.

After having aroused the curiosity, Dr. Eugene Podkletnov also has held other materials above his rotating disc and had to discover that these as well lose weight, and that he actually influences the gravitation with his experiment. Even the air pressure at the corresponding place in a lying above floor was smaller^{<i>}.

With a superconductive disc of 30 cm diameter cooled by liquid nitrogen a reduction of gravity for 2% to 4% can be obtained, if the disc rotates with more than 5000 revolutions per minute. With the revolutions per minute also the effect increases, but it is independent from the exciting field^{<ii>}. Finally the fields of the superconductive currents in the ring remain existing unchanged even after switching off the excitation and it only depends on these fields.

The shielding effect of the arrangement on electromagnetic fields already had been known before and should be examined closer in the laboratory. One only was surprised that the gravitation could be shielded as well, that obviously both interactions are related.

According to the prediction of the theory of objectivity the closed magnetic field lines gravitate and the field components directed towards the centre of the earth cause the measurable force of weight. By the very strong superconductive fields obviously field overlaps and possibly a local driving out of field occurs, like one has long known for eddy currents (Meißner effect).

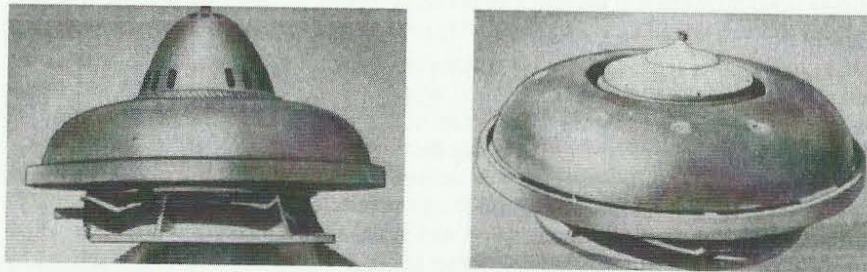
With that the earth gravitational field of course is not cancelled, but merely spatially moved, or it partly has changed its direction. If only a small part of field pointers turns out of their orientation towards the centre of the earth, then at that point the force of weight is reduced to a corresponding extent. The theory of objectivity requires that.

By the way reports exist, according to which even without rotation a weight reduction can occur for superconductive rings, and others, where is worked even entirely without superconduction. As core material for the ring ferrite or a strong permanent magnet is used. In that case it depends on the circumstance that the ring-like coil is operated in self-resonance and always in the right moment again is excited anew by induction. The ring core then stores the fields up over time, exactly as the superconductor.

Strictly speaking it are the atomic nuclei and in the end all elementary particles, which are aligning in the high field. Frau Dr. Ning Li wants to artificially produce gravity, by directly influencing the quanta. With that she comes the phenomenon very close^{<iii>}. The possibilities of this effect nevertheless are very limited, since two percent more or less are not exactly much, and the dream of the complete cancelling of gravity or even inertia possibly stays just a dream. It strictly speaking just concerns influencing the gravitation and not antigravitation.

cause/ field lines	interaction	F = force effect <u>mediation:</u>	see chapter: effect/ application
5. closed H -field lines	gravitation (static)	F_{MG} = gravity by <i>particles with mass</i>	chapter 6.9 + 7 elementary particle mass
6. closed H -field lines	levitation (dynamic)	F_{ML} = reduced gravity	chapter 18.3 gravit. waves Casimir effect
7. closed E -field lines	gravitation (static)	F_{EG} (force hardly detectable)	chapter 18.7 supercon- ducting ring
8. closed E -field lines	levitation (dynamic)	F_{EL} (no longer detectable)	chap. 18.5 + 18.6 Keely-/ Searl- flying devices

Table 18.8 A: The interactions of closed field lines. <i>

Fig. 18.8 B: Test models of the „flying saucer“
according to Viktor Schauberger. <ii>

<i>: according to fig. 15.5, cases 5 to 8

<ii>: O.Alexandersson: Lebendes Wasser; W.Ennsthaler Verlag Steyr, 1993, S.103

18.8 Discussion concerning the effect of closed field lines

If we now direct our eyes exclusively to the lower half of fig. 15.5, in which the consequences of closed field lines are listed. Without the possibility of a direct focussing like for open field lines, the caused force effects turn out extremely small. With that they are less suitable for an use of free energy. The considerations in that context rather aim at technologies to reduce weight, like they would be worth striving for for flying devices.

If we allege that here in the same way the force effects of magnetic H-fields exceed those of electric E-fields for three to four powers of ten. Then it will hardly play a role for the force of weight of a body with or without additional electric charge, if its E-field lines are closed as well or are open. The increase in weight of an uncharged body only will have an effect in the third till fourth place after the decimal point. Seen so in the case of the *gravitation* it primarily concerns an effect of the magnetic field, more strictly speaking *the effect of closed magnetic field lines* (chapter 6.9).

If one succeeds in influencing these magnetic fields for instance by the influence of extremely strong fields of a superconductor, then also the gravitation will change, as has been shown (chapter 18.7). Let's imagine, in the case of a systematic procedure we would succeed in a perfect influencing, for which no component of the H-field lines points into the direction of the centre of the earth anymore, then an uncharged body would only have one tenthousandth of its original weight, whereas a charged body actually would weigh nothing anymore. This state of the weightlessness supposes that all E-field pointers point into the direction of the centre of the earth or diametrically in the opposite direction, since E- and H-field are standing perpendicular to each other. Unfortunately such a field distribution technically hardly can be realized and so the „flying carpet“ furthermore remains reserved to the fairytales.

An effective reduction of weight of planes and other flying objects however seems by all means feasible, and so slowly the number of research facilities increases, which more or less officially have a critical look at the cancelling of gravity and the levitation. The theories on which they are basing, however often sound very bizarre and moreover are completely unphysical. Maybe a look at the distribution of field lines, as proposed here, helps to get further.

In the case of the levitation, which occurs strictly speaking only in the case of oscillation for closed field lines, resonance again plays the crucial role for the coming about of the interaction. In connection with neutrinos the resonance can serve less the collecting; we rather need it for the materializing, for the production of mass, charge and energy.

For the artificial production of a levitation either a mechanical oscillation in the atomic or molecular domain is needed, like for instance is produced by a rotating water molecule, or a resonant oscillation of size takes place by use of electrostrictive or magnetostrictive materials, like piezocrystals or oscillating quartzes.

In this context surely is of great importance that also the temperature could be identified as a particle immanent oscillation of size (chapter 8.3). That's why besides a cold materialization or cold fusion also exists, at least theoretically, the possibility of a hot materialization or hot fusion.

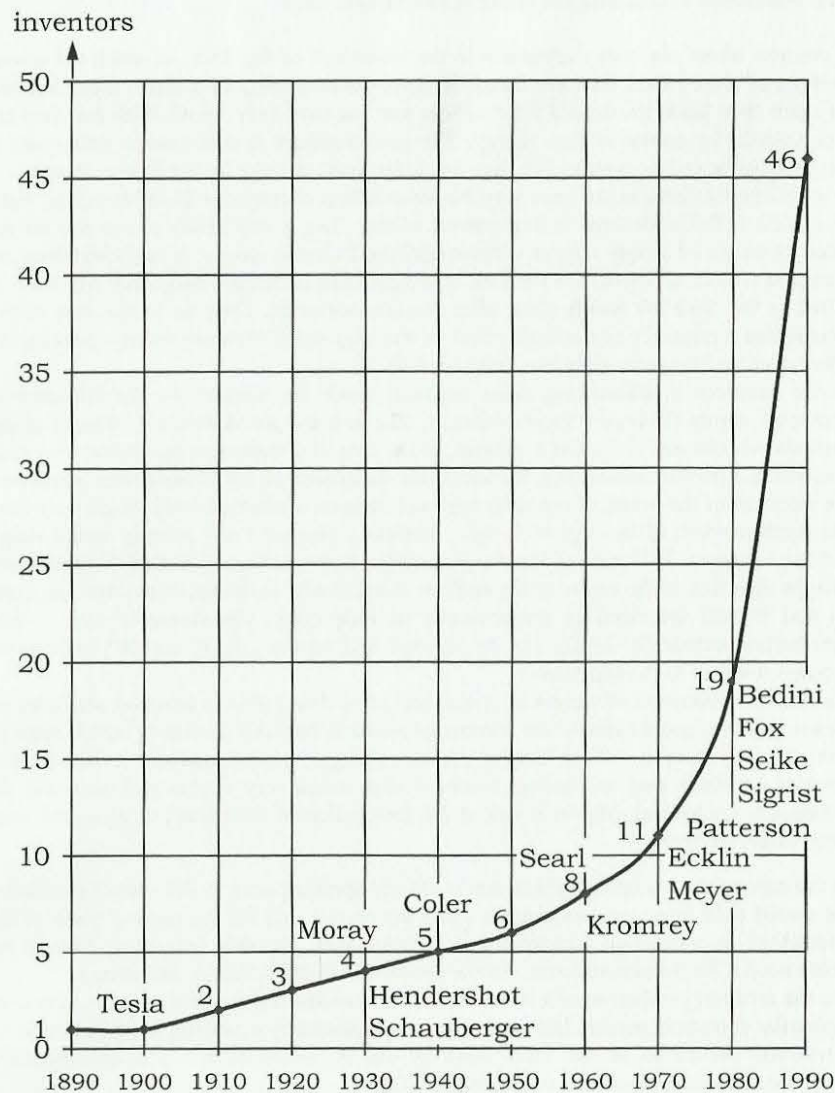


Fig. 18.9: The increasing number of free energy inventors. <i>

<i>: only the inventors mentioned in the text are entered. Literature for that:
A. Schneider: Energien aus dem Kosmos, Jupiter-Verlag (1994), S. 77

18.9 Concerning the determination of the stand of today's energy technique

An analogy to the production of matter forms the production of light. At high temperatures as is well-known is formed thermal light and at low temperatures cold light, the discussed luminescence. An oscillation of size of the light source in all cases of the formation of light is the cause, be it as an electromagnetic wave or as photon vortex, be it in whirled water or as sonoluminescence. We at last see ourselves put in a position to understand the various light phenomena as something which is related.

The call for new energy carriers and an ecologically compatible energy technology can't be ignored anymore. The number of inventors at present increases fast (fig. 18.9). It is legitimate and worth recommending, to observe for this purpose first of all nature, how it solves its energy problem. Doing so we should realize that in contrast to the technology of today no combustion and no explosion takes place, but rather principles of a cold fusion and of an implosion as a result of contracting potential vortices are being used. Actually nature may point the way out of the energy technical dead end. We only have to accept the offer, be open and show being ready, to invest in the development of methods in accordance with nature.

Directed at the address of the distributors of supporting funds for energy research the claim in plain English reads: to grant no money anymore for ecologically harmful concepts, like nuclear fission or for not understood and not realizable developments like hot fusion, to immediately stop the fruitless works and to provide the money for an ecologically compatible energy research.

Immense saving potentials moreover are found in all domains of physics, where instead of costly experiments just as well the things could be calculated with an usable theory. To check the theory then only few experiments would be necessary. After all all important discoveries have come about in this manner. Nobody should think, he had understood a matter, once he has filled himself up with sufficiently much measurement data.

The root of the evil lies already in the education, where students of physics want to understand everything and therefore are trying hard to grasp with their view and hands for everything. Abstract thinking or mathematical derivations however are too uncomfortable for most; they have the erroneous opinion, understanding (German: begreifen) would have to do more with grasping (German: greifen), and for that the head after all can't be used.

One reason for this development can be seen in the relativistic point of view of Albert Einstein, who proceeds from the assumption of a subjective observability and has raised the relativity between a physical principle and the observation to the basis of physical thinking. The arrogant motto prevails: what I can't observe with my sense organs or register with corresponding gauges also isn't physics, but esoterics or parascience.

But if we want an ecologically compatible technology, then this can't be reached with this point of view. Then we only hinder ourselves with our own arrogance and intolerance. We have to leave the erroneous quantum physical way and again learn to think abstractly by taking up tried and tested principles of classical physics. An objective point of view forces us to register the phenomena, which lie outside the observable range, with mathematical means (see chapter 13). Only if we have learned that, we will understand and realize the true relations in physics.

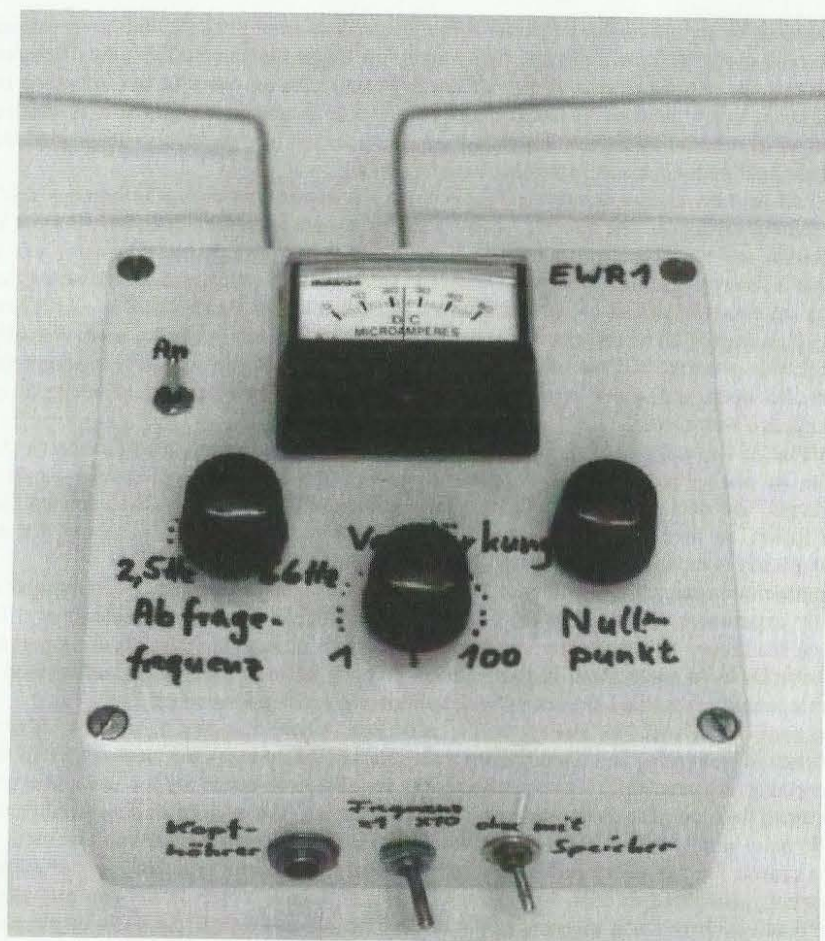


Fig. 19.1: A self-built charge amplifier.

19. Own experiments

The opposite of the theoretical considerations form practical experiments. If we want to register and understand physical and natural scientific phenomena, then we shouldn't entirely forget the aspect of handicraft. Doing so it can't be avoided that it goes on very personally, if about the laboratory work is being reported, not even then, if the experimenter is at pains to exclude every influencing of the carrying out of the experiment and the result. After all does anyone have to execute the experiments himself, since a good sceptic anyhow only believes, what he has observed with his own eyes.

19.1 Concerning the rating of experimental physics

There already have been scientists, who have requested to reject a measuring technical determined result for the case that textbook physics doesn't produce it. This attitude even today still is taken by an uncounted community of believers of science, entirely after the motto: „Nature kindly has to fit in with the dogmas of theoretical physics.“

This wrong thinking is reflected in the scientific journals, which reject to print discussions. Controlled by a tester board, which only has the task to prevent dissenters from the publication of their ideas, they are the sad proof, how widespread this erroneous attitude today is in the university scene.

Actually solely the scientific experiment shows us the physical reality! The theoretical models, like the here presented vortex model merely should help to understand nature and its laws. The representatives of theoretical physics are in the role of a helper and that requires modesty and openness.

For the case that a professor of theoretical physics imposes a pledge of secrecy on an experimenting colleague, if this one wants to report publicly about his amazing tunnelling experiments, then the public nevertheless should have the right to find out, if a tunnelling experiment reveals speeds faster than light, even if it doesn't suit the theorist and he in inappropriate arrogance only should consider the experimental physicist as his assistant.

If universities only are occupied with preservation of property and the industry only with the increase of its productivity, if future research consists of hiding public research funds internally in such a way that nobody realizes the fraud of support and in reality nobody thinks of the future anymore or wants to work for it, then we will be able to observe how discoveries and inventions migrate from the industry and the universities with their controlled central organs and increasingly will take place again in garage, cellar, solitary study room or in privately organized circles.

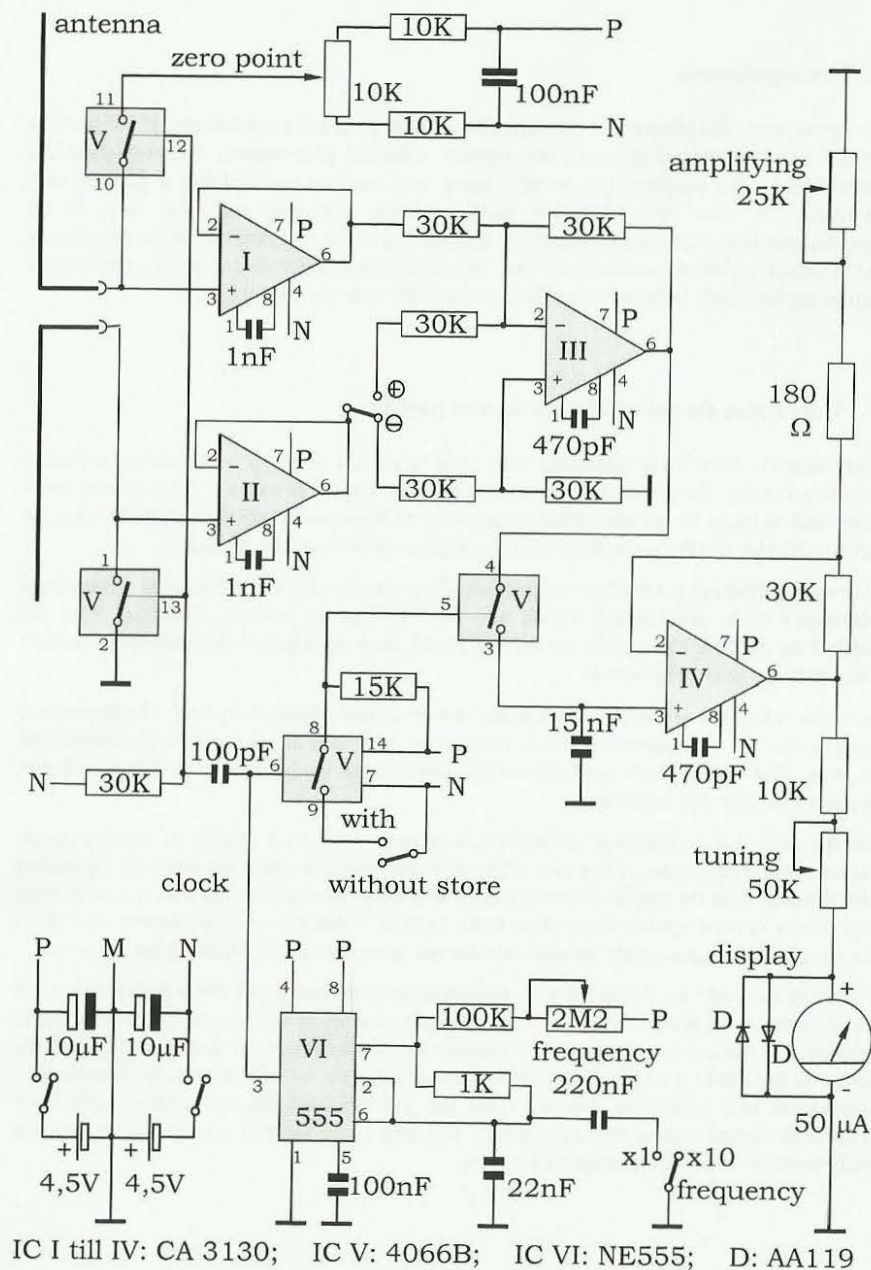


Fig. 19.2: Wiring diagram of the self-built charge amplifier

19.2 The charge amplifier from the workshop of handicrafts

In connexion with my vortex theory in this book time and again clues to experiments can be found. I am aware of their importance and I always, to verify my theoretical working out, have accompanied it with practical experiments. Doing so not the proof, which can be published and reproduced by anyone at any time, stood in the foreground. With the experiments in my workshop of handicrafts I only wanted to check for myself, if my derivations still can be verified.

Consequently was at first done without a publication in the first and second edition of the second part concerning the „electromagnetic environmental compatibility“. For the addition of the here presented chapter about own experiments from the third edition there are several reasons: first; I have been asked for it by several readers, second; from every experiment is coming a piece of physical reality to meet one and third are here latent some useful ideas and approaches which get us somewhere.

Of course can't be read much from a handicrafts self experiment, but perhaps one or another reader, who has better laboratory technical possibilities at his disposal than me, is stimulated to carry out own experiments.

To chase after the potential vortices in the air, I 1989 at first have built together a charge amplifier. I connected differently formed antennas at the particularly high-ohmic difference input. Corresponding the in nature arising static electric field a tension voltage should arise between both antennas, which my gauge should amplify and indicate on a moving-coil instrument.

To be able to register local changes, a measurement cycle is gone through, which periodically is repeated: It starts with the measurement time, during which entirely by itself between both antenna a charge is building up. The value afterwards is stored analogue in a Sample-And-Hold link and displayed by means of a moving-coil instrument. Then the input clamps are short-circuited, the antennas again discharged and the game starts from the beginning.

Measurement time, zero and amplification can be adjusted at the device (fig. 19.1). Whoever has fun to rebuild it, finds the by me realized wiring diagram in fig. 19.2.

It is true I did realize other designs, but technically the here shown design proved to be the most useful solution.

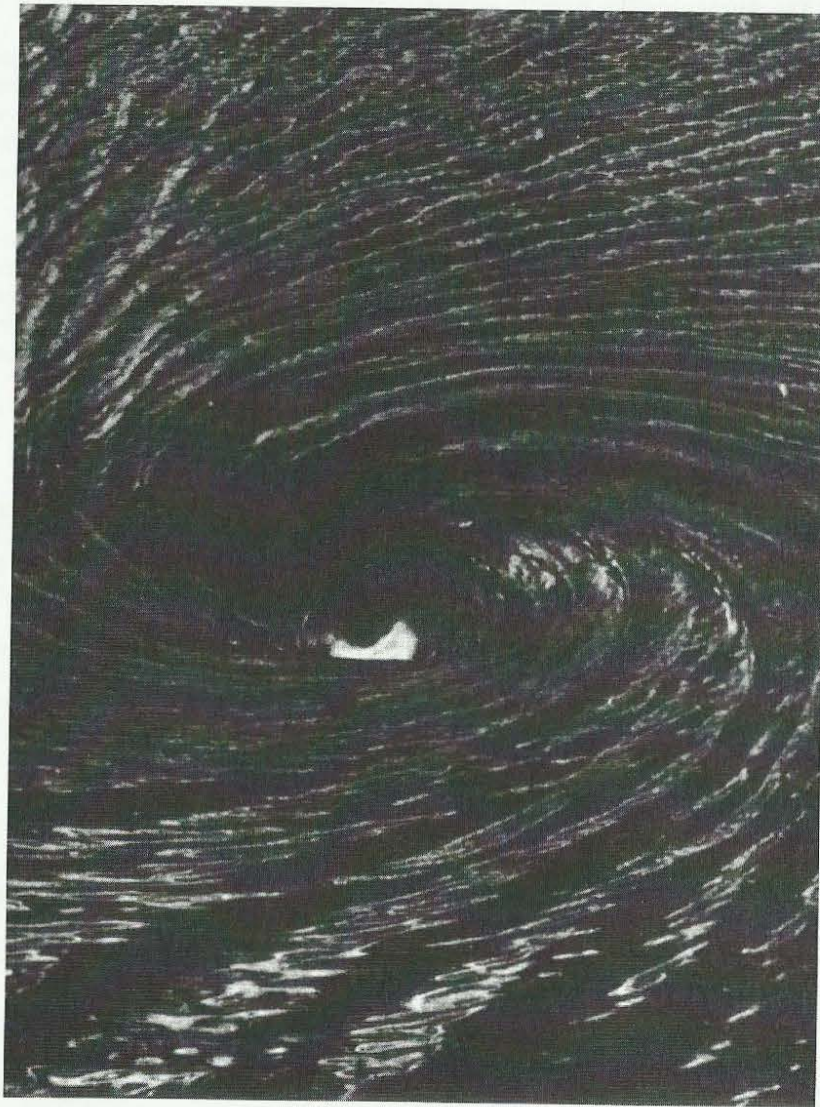


Fig. 19.3: The bath tub drain vortex;
shown is a tidal vortex near St. Malo.<i>

<i>: Photograph from the magazine „Life“ of 4.7.1969, resp. from:
H. J. Lugt: Wirbelströmung in Natur und Technik, Seite 371

19.3 Interpretation of the observations with the charge amplifier

The practical use of the device at first proved to be extremely difficult, because the pointer seemed to perform a wild dance. At a more close look I however could make exactly those observations, which I had sought-for as proof for the existence of potential vortices.

First I did find confirmed the known high field strength. We after all live between the ionosphere and earth's surface right in the middle of the dielectric of a "spherical capacitor". Because the values of the electric field reach very much closer to the maximum value, which is lethal for living beings, than the value of earth's magnetism, I did draw from that the conclusion that biological effects primarily can be expected from the E-field.

If the E-field, as Maxwell's field theory specifies, actually would be irrotational, then we would be dealing with a gradient field. My device would have to display everywhere to a large extent the same value. But that was not the case.

Maybe the building is responsible for the chaotic display and the wild swings of the pointer, so I thought. Doing so I had thought of the auxiliary explanations of the high-frequency engineer about so-called reflections in closed rooms. Therefore I stormed with the gauge, which had gone wild, into the open air and walked different ways, which should have been reflection free, but the picture stayed the same. In any case the E-field is not a gradient field, I had to find out.

Following I could, what required much patience, find certain places, at which for the same movement from the same direction could be seen a reproducibility of the swing of the pointer. It even could be arbitrarily often repeated. I marked the point exactly. Then I tried to move the device from another direction towards the marking and had to find out that the point had moved away.

If I sit in the bath tub in the evening and pull the plug, then I each time am enthusiastic about how sensitive the drain vortex reacts, how I can send it from one corner into the other by the snipping of a finger without it falling apart (fig. 19.3). Doing so one easily can imagine with a bit of phantasy how difficult, yes, almost impossible it would be to measuring technically register the vortex for the case that we could not see it. The gauge it is true would display violent wave movements. But a reproducibility we would not be able to obtain, exactly as for my self-built charge amplifier.

Now I knew that the by me at 2.1.1990 at first purely theoretical derived potential vortex actually exists as vortex of the electric field.

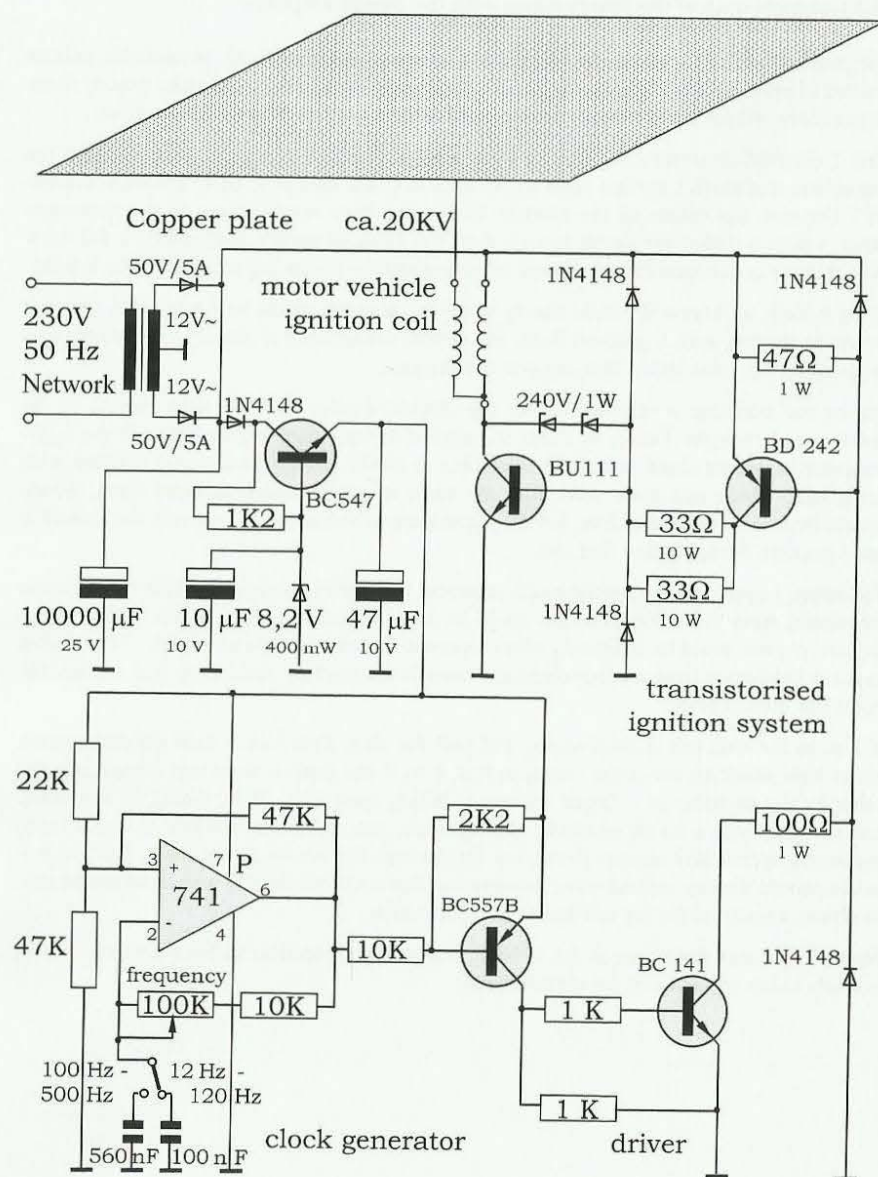


Fig. 19.4: Wiring diagram concerning the Kirlian device.<i>

19.4 High-tension experiments in the laboratory for performance electronics

At first the students of electronics, with which I had to do daily, were infected by my discovery. With true enthusiasm they soldered together one circuit after another. In my laboratory something like a mood of setting out could be felt. One student brought along an old ignition coil of a motor vehicle, then the control circuit for it was built, plexiglas organized, an aluminium plate glued under it and the whole box dragged into the photographic laboratory⁴². Three students made a detour along the outside grounds of the polytechnic and picked the necessary visual aids of trees and bushes.

Following the leafs were laid on photographic paper and by means of the self-built high-tension generator charged to 20000 Volt. Doing so at all edges and particularly at the tips of a leaf corona discharges arise, which expose the photographic paper. We then developed the photographs ourselves and discussed the results ^{<ii>}.

The indication, for a second photograph the whole leaf would appear even if half the leaf is torn apart after the first experiment and only one half is put on, occupied us in particular. Eventually we didn't put on a leaf at all in the second experiment and found out that nevertheless the leaf put on last became apparent on the photograph. Now only one physical interpretation was possible: The potential vortices of the leaf stimulated by high-tension still were in the plexiglas disc in weakened form. Here they swirl further and under high-tension furthermore produce corona discharge impulses.

Now also the students were convinced of the existence of the potential vortices.

This experiment stimulated the brain cells of the entire team: If potential vortices under high-tension cause electric blows, since the corona discharge is nothing else, then in this way the local vortex distribution in space should be measurable? One student immediately got down to work and build from the horizontal diversion unit of an old television a high-tension generator with an adjustable spark gap. Following he walked with his flashing and crashing device all through my laboratory and others walked with him and dragged the gauges behind them. But to their big disappointment they were not able to see an influence dependent on place.

Then it suddenly was clear for me: It would have done the students well, if they before would have had a bath and observed the drain vortex. "it suffices the famous wing stroke of a butterfly", I explained my team, "and instead come up with this infernal machine and chase away all the vortices, which we actually want to register ". We had to realize that as a rule the phase of disillusionment follows the euphoria.

<i>: Elektor, Fachzeitschrift für Elektronik, Mai 1977, S. 22-25: Kirlianfotografie; fig. 19.4 shows the wiring diagram and fig. 19.5 A the self-built device.

<ii>: The Kirlian photographs from the darkroom of the polytechnic are shown in fig. 3.6.

<i>: Elektor, Fachzeitschrift für Elektronik, Mai 1977, S. 22-25: Kirlianfotografie

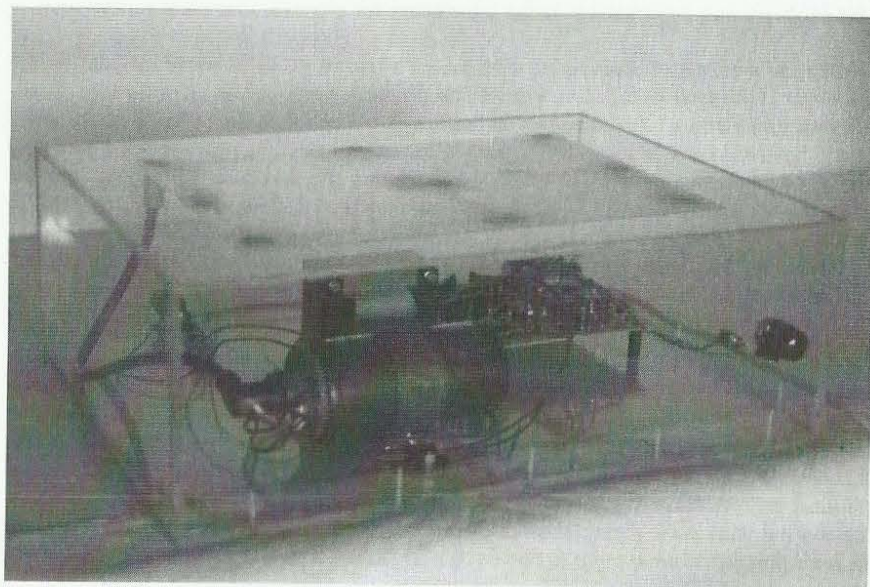


Fig. 19.5 A: A self-built high-tension device for Kirlian photography

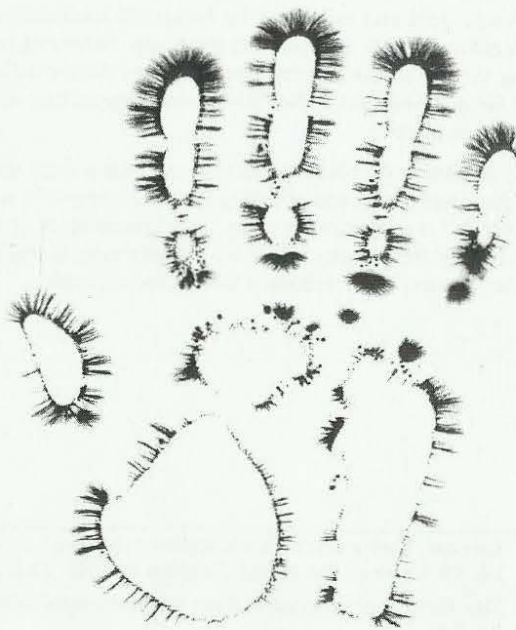


Fig. 19.5 B:
Kirlian photograph
of the right hand

19.5 Measurement of dielectric capacitor losses in the HF laboratory

My convincing work clearly was shaped more complicated with my professor colleagues. Most pretended to understand nothing about it and kept themselves out.

But there also are exceptions. „something like that has never been there at our polytechnic, that a colleague puts forward an own field theory“ „a physicist colleague remarked after my lecture public to the polytechnic“^{<i>} at 3.7.1990 and meant, that must be celebrated. He festively let me cast my eyes in his store room, got out a few bottles of wine, which then some of my colleagues of physics emptied with me in their official room. Doing so we small talked about the sense or nonsense to fix on the education of physics to the Coulomb charges.

The head of the high-frequency laboratory showed likewise impressed. At last he now knew, why capacitors at microwave frequencies can become so hot that they solder themselves out of the circuit by themselves and can fall out, why PVC-films can be welded with HF, etc. „We have to prove that not the dielectric is to blame, as stands in the textbooks“ he came towards me.

At least following my idea potential vortices are the ones, as I expressed myself, which are behaving dual to the eddy currents. It concerns vortex losses, thus a physical phenomenon. Eddy currents now can be damped as is well-known, by for instance sheeting the iron circuit for engines and transformers. The insulation between the sheets prevents the formation of eddy currents in that direction and the degree of effectiveness increases.

„I would suggest“, I told my colleagues, „to "sheet" a capacitor in a dual manner and to measure the losses“. Because eddy current losses increase with the square of the frequency, we picked microwave frequencies. In the HF-laboratory a card with an L-C resonant circuit was made, we should be able to quite precisely determine the losses by means of its quality. The inductance was formed as a microstrip line and for the capacitor a socket was planned.

The carrying out of the experiment consisted of using single layered ceramic capacitors, so-called trapezium capacitors, with a vapour deposited silver coating on both sides as a package and to measure the quality of the resonant circuit as a measure for the dielectric losses. According to the rules of duality the dielectric (as nonconductor) thus corresponds to the permeable transformer sheet (conductor) and the silver coating (conductor) to the sheet insulation (nonconductor). In a second experiment the silver coating now was removed and the same capacitor material measured at identical conditions this time uncoated. Will the losses increase or isn't changing anything?

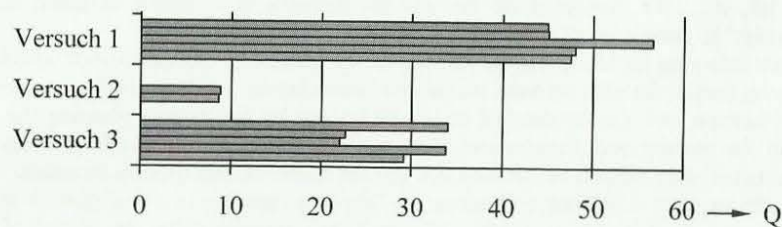
Tension and nervousness suddenly could be felt, even among the students, who followed the experiment from the second row. All looks were pointed at the monitor of the network analyser, on which slowly the bell-shaped curve of the measured resonant circuit quality became apparent. The result was surprisingly clear. I first looked at my colleagues and then at the students and had to realize that all eyes were pointed at me. The first measurement was a bull's eye! The vortex losses "uncoated" were considerably larger.

<i>: K. Meyl: **Die mangelnde Dualität der Maxwell'schen Gleichungen** with contributions concerning the theme of magnetic space poles, the mathematical calculation and the technical-physical interpretation of newly discovered potential vortices. Invited by the rector of the FH Furtwangen at 3.7.1990

- experiment 1: quality of resonant circuit with coated capacitors
from a series of 5 separate experiments averaged: $Q = 48$
- experiment 2: silver coating removed with diluted nitric acid
possibly the acid has damaged the dielectric: $Q = 9$
- experiment 3: silver coating polished off mechanically.
low quality means high dielectric losses! averaged: $Q = 28$
- resonance sharpness
(quality number):

$$Q = \frac{f_0}{\Delta f} \frac{(\text{Resonance frequency})}{(\text{Resonance frequency range})}$$

at a resonance frequency f_0 of approx. 400 MHz.



Quality number Q of the L-C resonant circuit
the dual „sheeted“ capacitor has the lowest losses,
the resonant circuit with that the highest quality (experiment 1).

Fig. 19.6: Measurement of the dielectric capacitor losses over the quality of a resonant circuit in the HF laboratory at 11.06.1990.

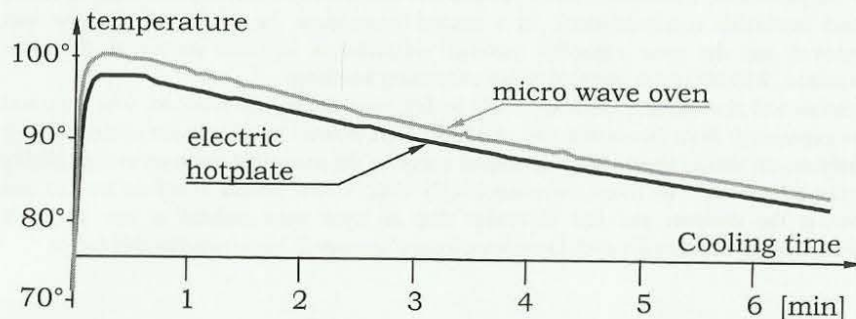


Fig. 19.7: Measurement curve of the water temperature over time at 22.10.1996 in the electrical engineering training

Observation: for the microwave oven the container despite the "after cooking-effect" remains colder than in the case of a hotplate. Sensor: PT 100.

19.6 Analysis of the measured capacitor losses

First of all the colleague spontaneously prompted a common publication.

But a certain disillusionment had to await us. For the next measurement hardly a difference could be detected. We varied the contacting and removed the silver coating, once with hydrochloric acid, once with fine sandpaper. Every measurement we repeated umpteen times and in the end had to draw the conclusion that the results for our somewhat unprecise construction fluctuated extremely.

Averaged over all measurements and methods, indeed a reduction of the dielectric losses for a layered capacitor resulted, but at a critical consideration of the errors the results seemed to "drown" in the mean variation. In the opinion of my colleague the visible trend wasn't sufficient to convince dyed-in-the-wool sceptics, whereupon he withdrew with the indication, I should try at the people of microelectronics, they more likely would be capable to reproducibly gain control of a layered construction.

The experiment at least let a legitimate chance open that the vortices of the electric field actually exist, and in the case of the dielectric losses of a capacitor it concerns vortex losses^{<i>}.

19.7 Microwave oven for testing in the laboratory of electrical engineering

"Volunteers first" was said at 22.10.1996 in the electrical engineering practical training and two students got down to work. I had brought along from our kitchen the microwave oven, a portable immersion heater, a kitchen stove plate and different containers. In the laboratory of the polytechnic I in addition had got hold of a Bunsen burner. In the sense of the "Stiftung Warentest" (institution to protect consumers in Germany, note of the translator) it concerned the question for differences in heating water; or following the public discussion, is cooking with gas more healthy than cooking with the microwave oven?

We wanted to know. So we cooked water, filtered by inversion osmosis, once with the gas burner, once with the hotplate and finally with the microwave oven. Switched off always was at the same moment at the same temperature, and the cooling down curve was recorded with an x-t-time recorder (fig. 19.7).

Between gas and electric cooker virtually no difference could be detected, but the microwave oven at switching off still showed an odd temperature increase. I already had remarked this earlier. If one takes a water glass out of the microwave oven, then the water again really bubbled off, although the container itself had remained relatively cold. If one on the other hand takes a water pot off the gas cooker, the water suddenly stops cooking. From where comes this difference, which also the experiment could confirm?

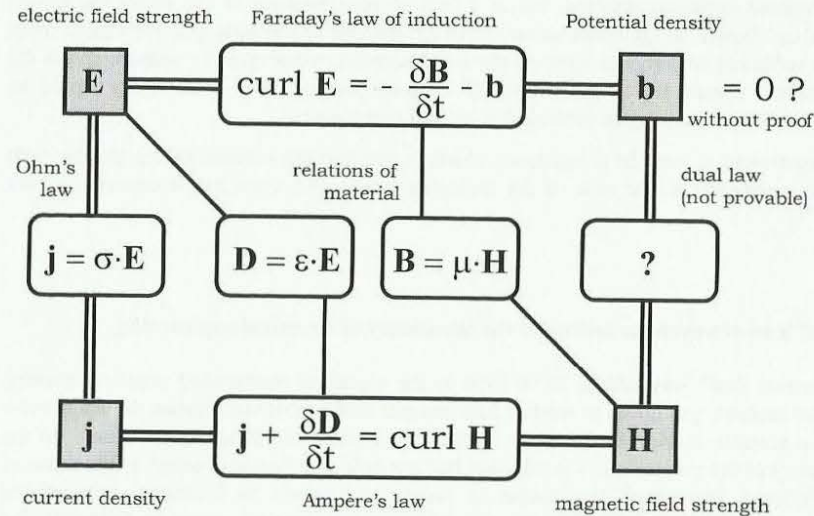
<i>: A result of my dual way of looking at the vortex losses is the representation in fig. 4.7.

A: damped wave equation:

$$\Delta \mathbf{E} c^2 = \frac{\partial^2 \mathbf{E}}{\partial t^2} + \left(\frac{1}{\tau} \right) \cdot \frac{\partial \mathbf{E}}{\partial t}$$

(wave) + (vortex)

B: open chain of reasoning in the physics of electromagnetism:



C: for the stationary case ($\partial/\partial t = 0$) in general representation:

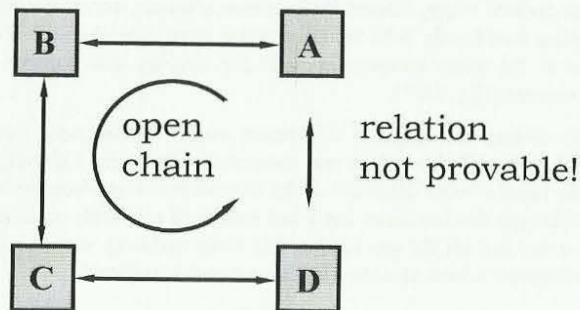


Fig. 19.8: Contribution to the discussion about the impossibility, to prove, according to scientific methods, in a chain of reasoning (A-B-C-D) the last link (D-A), which closes the chain.

19.8 Microwave heating by decay of vortices

It has to concern a *storing effect*. In the case of an normal cooker the heat transfer takes place by *convection*. In the case of a microwave oven we however are dealing with an *electromagnetic wave*.

But in the wave equation nothing can be read about heat; here merely vortices can be found as a damping term (fig. 19.8 A)^{<i>}! Therefore as the only possible interpretation is left that the microwaves roll up to vortices to fall apart themselves after a certain time. Only at the vortex decay heat is formed.

The irradiated microwave power according to that is stored over a longer period of time as vortex in the water and the food. The vortex decay takes place according to an e-function with the calculated relaxation time constant τ ^{<ii>}.

From the circumstance that particularly water is heated up in the microwave oven despite the small electric conductivity but with high dielectricity, I infer that it has to concern mainly potential vortices, from which a biological effectiveness can be expected. The question if this should be valued positively or negatively, I have to leave up to the doctors and therapists. At least physically seen a difference is measurable. Thus a vortex decay will occur for a meal prepared in the microwave oven even if we already have consumed it.

Conclusion: *I wish all: your health.*

But what do I write about vortex losses, if every sceptic knows half a dozen alternative interpretations. Inevitably I have to bear in mind that also the eddy current heating owes its acknowledgement only the circumstance of the discovery of the corresponding laws. If Ohm hadn't discovered his law and formulated it in the known form and instead the dual formulation would have been discovered, then we today would attribute the dielectric losses in a capacitor and in the microwave oven to the potential vortices, in the case of the transformer however the material would be responsible for the heating and not eddy currents, for which there then also wouldn't be a theory (fig. 19.8 B).

It actually is pure coincidence that at first Ohm's law and not the dual formulation had been discovered and acknowledged. But because both are equivalent, we also have to assume the correctness of both, even if the last link of a chain of reasoning A-B-C-D back from D to A in principle can't be proven anymore, since it already is explained by the chain A-B-C-D (fig. 19.8 C).

There I thus had discovered a potential vortex, without a possibility for a direct proof of existence. For that the textbooks are full with auxiliary explanations, with which physics successfully cheats past this important field phenomenon. I was frustrated. There had to be a way to measuring technically register the vortex in some way.

<i>: Fundamental field equation 15 in fig. 5.1 or equation 21, fig. 5.3

<ii>: Relaxation time constant: see equation 10 in fig. 5.1 or fig. 8.1

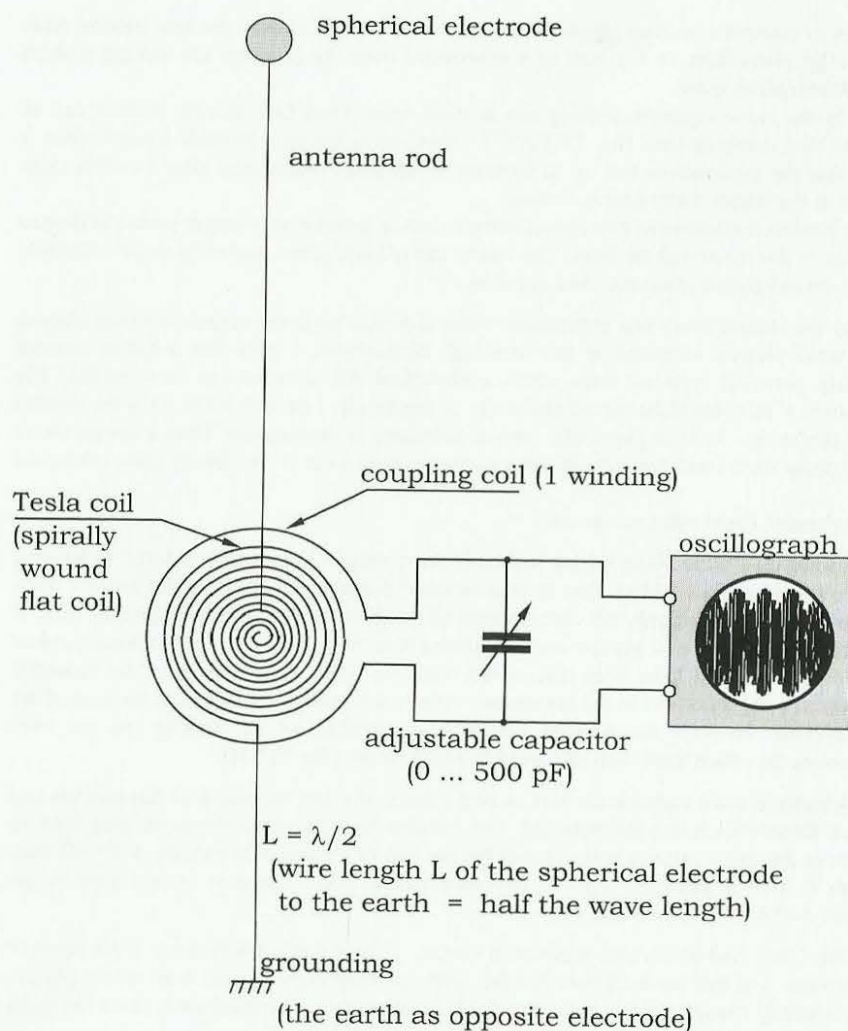


Fig. 19.9: Proof of scalar waves with the Tesla coil. <i>

19.9 The Tesla coil from the workshop of handicrafts

I again retired in my workshop of handicrafts and wound flat coils or I pondered in my study over Tesla books. 1995 from several sides my attention had been drawn to the circumstance that the inventions of Nikola Tesla can be organized in three categories:

The first third has made him world-famous. It concerns the rotary field theory, the asynchronous engine and the today normally used alternating current technology, which we owe him.

The second third concerns technologies and inventions, which were rediscovered by other people partly only years later or even were only pinched and distributed as novelty under another name. Electron microscope, superconduction, electrolyte capacitor, fluorescent lamp, fuse, coaxial cable and a lot more count among that.

The last third however concerns inventions, which until the day of today still aren't understood and await their scientific explanation and technological use. Tesla himself called these achievements his most important inventions, but still owes us a scientific explanation. The scientific world also hasn't got a theory ready and doesn't know to do anything with it. Public research doesn't take place or is prevented by lobbyists.

What remains, are tinkerers of various educational background and qualification, who are trying hard to comprehend the buried experiments of Nikola Tesla off their own bat in the garage or in the hobby cellar.

I felt like one of these, by winding one winding after the next from the inside to the outside. Then I soldered an antenna wire at the inner end of the flat coil, which I in Tesla manner connected electrically with a spherical electrode hung up under the ceiling.

The opposite electrode should be connected to the outer end of the winding, it is said, and the distance between both should be as big as possible. If namely an electrode just is collecting, then the opposite electrode is repelling the same space quanta. According to Tesla's recommendation I did use the earth as opposite electrode and for that tapped the central heating or the grounding of the foundations.

To take signals only one to two windings as secondary winding were necessary. I connected them with an adjustable air capacitor from an old steam radio to a frequency determining parallel resonant circuit and looked at the taken tension voltage at the oscillograph (fig. 19.9).

I still had problems with the statement of Tesla, the coupling had to be made loose. Thus the question is asked, how loose? I after that organized two toilet paper rolls of different size, (after the toilet paper had been used, naturally) and pushed them into each other. The smaller toilet paper roll carried on the gable-end the flat coil as primary winding of the air transformer and the bigger one the coupling coil. Now by shifting any wanted degree of coupling could be adjusted to (fig. 19.10).

I was astonished myself. Tesla actually was right with his discovery of the scalar waves. With my arrangement they can be clearly distinguished from the Hertzian waves.

The following procedure is recommended:

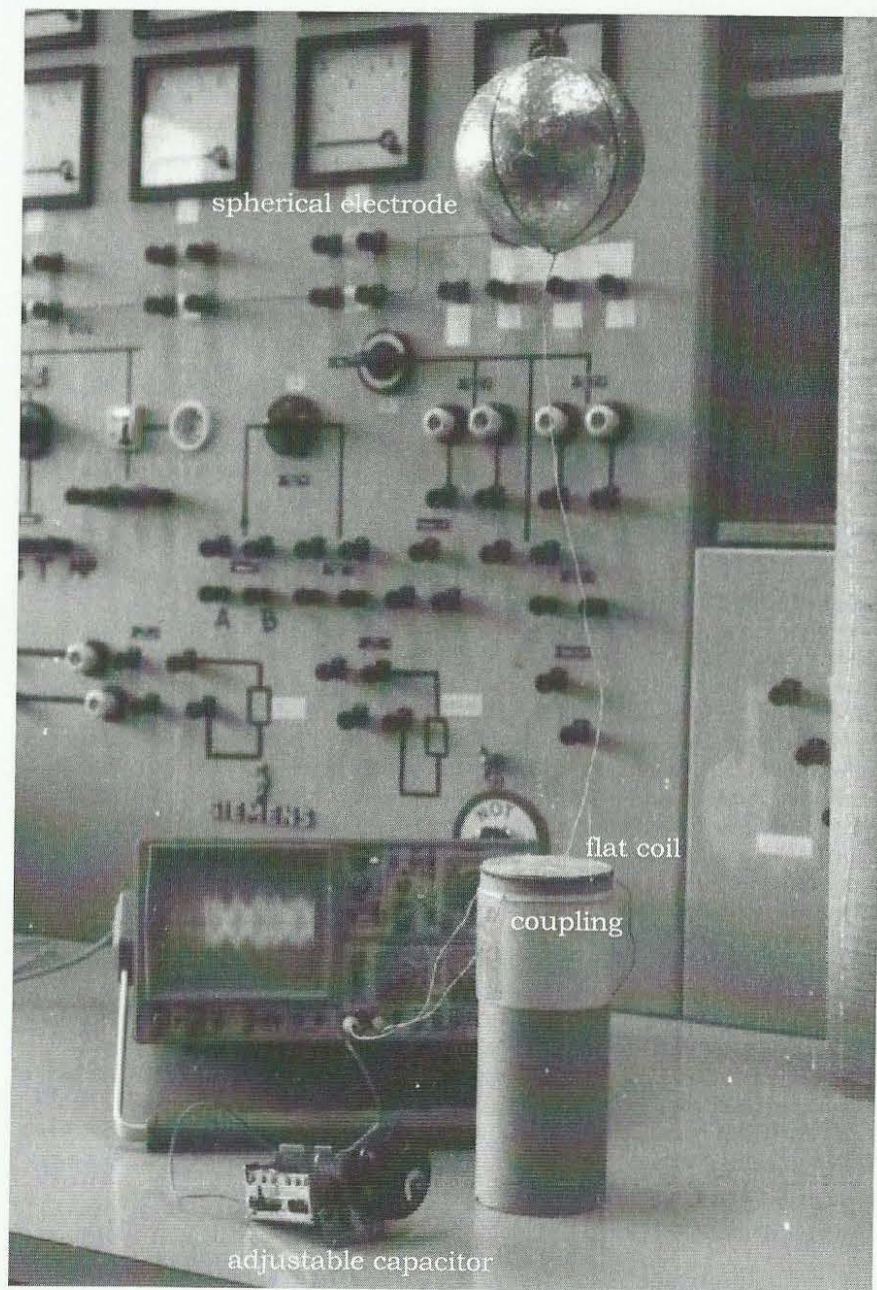


Fig. 19.10: The experimental configuration

First of all I seek a source of interference with the adjustable capacitor and tune to maximum amplitude. Then I change the coupling and further optimise in this way. If now the amplitude again decreases from a certain point while approaching the coupling coil, then it concerns the sought-for longitudinal waves. If namely the coupling is too tight, then the received vortices again are driven away by the effect back on the flat coil. They make way.

At last I had found a method to catch the vortices in such a way that they not immediately "ran away" from me again. At once I presented them in the technology centre in St. Georgen. In the time following I improved the technology further and further, used bigger toilet paper rolls and eventually even turn up garbage cans, I varied wire length, wire diameter and the sense of winding (fig. 19.10).

I had very different success. Sometimes, if at the same time in my workshop of handicrafts the radio worked, it would look as if the received signal would synchronize with the sound waves. Both are longitudinal waves after all. With transverse waves something like that would be unthinkable.

One moreover could observe, how a resonance builds up: first slowly and then faster and faster, so that I sometimes got terribly afraid. Several times we had to repair our oscillograph, after the protective diode at the input amplifier had blown, and that for signals of 50 to 100 millivolt.

That was entirely impossible. Only individual spikes, which were too fast to be seen at the screen, could be to blame. In the case of distant thunderstorm activity I obtained maximum values of more than half a Volt. After that I unclamped the grounding as fast as possible, so that no lightning would be caught, since I didn't have the intention to burn off my workshop.

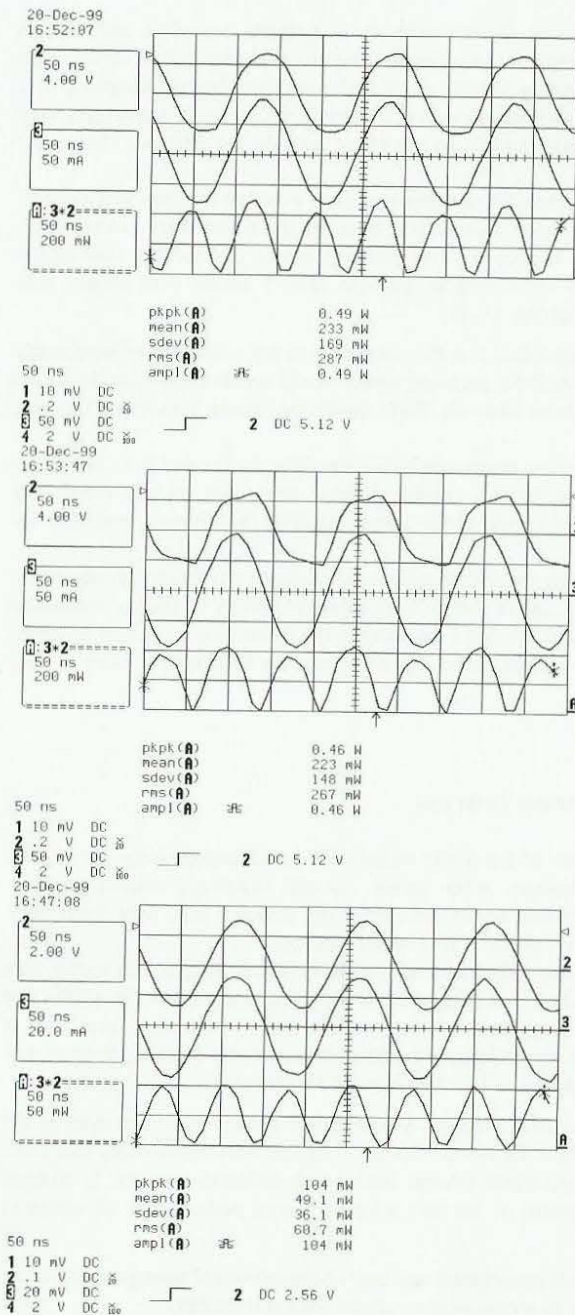
19.10 Biological effectiveness of the Tesla coil

Also the biological effectiveness of the Tesla radiation I could impressively prove with this device. 14.06.1997 a woman, who called herself extremely electrosensitive, participated in the weekend seminar about electrobiology, which I took over from Prof. H.L. König (TU Munich) after his death. That I wanted to test.

I hung up my device in the lecture auditorium and installed the oscillograph in such a way that all could see it. The voluntary test subject however could see neither the public nor the screen. One person every 5 seconds said "now" and the female candidate should say, if I had clamped or unclamped the grounding, if therefore scalar waves were received or not. After a training round her proportion of hits was lying at 100 percent!

According to her statement she could feel it. A further test subject achieved even at the back of the room with a pendulum the correct answer. I myself was surprised by this and I already have repeated this experiment several times with different success. It without doubt depends on the sensitiveness of the test subjects. Every person after all reacts to other signals.

What however has astonished all participants and can't be emphasized enough at all, is the circumstance that it in this case concerns a receiver and not a transmitter.



Measurement record

System resonance:
 $f = 6,7 \text{ MHz}$, Sinus.

distance transmitter-receiver: approx. 2 m
 transmitter coil with HF-braid identical to receiver coil:
 38 Windings wound spirally and
 33 Windings wound cylindrically.

Load for receiver:
 metal layer resistor (100 Ohm)

Gauge: Quad 200 MHz Oscilloscope:
 LeCroy 9304C

Current sample:
 LeCroy AP015 (DC-50MHz)

Differential sample:
 LeCroy AP032 (Attenuation Rate: 1/20)

Top: transmitter power consumption with receiver turned on (at 100 Ω -load):
233 mW

Middle: transmitter idle power: (without receiver) 223 mW

Bottom: receiver power output:
49,1 mW

19.11 Wrestling for measuring technical insight in the Transfer centre

In the central question who should be believed more, the famous experimental physicist Nikola Tesla or his critics, my experiments with the Tesla coil were the visible proof that we have to take Tesla's statements seriously. Now not only at myself, but also at the students of the polytechnic and the colleagues of my Transfer centre a true Tesla euphoria broke out.

In every free minute the patents and original writings were studied, which I had myself sent from the Tesla Society in Colorado Springs in the USA. In particular my trainees and diplomands developed an incredible ambition in making a historical Tesla concept work. They built a whole series of various high-tension generators. In the laboratory one could hear crashing and there was a smell of ozone.

22.1.1998 at a presentation of the works for a degree the candidate looked after by me very proudly held a fluorescent lamp in his hand, which in the field of his self-built high-tension generator glowed even without any wire connected, entirely according to the great model (fig. 17.10). At all efforts we however laboratory technical weren't able to reach tension voltages of above 511 000 Volt. But at this tension voltage the actual Tesla effects actually start.

Perhaps it was tough luck, but possibly also a chance that we in the laboratories, which I had at my disposal, were forced to work with lower tension voltages and that meant that we gradually had to break away from the Tesla designs.

Moreover we hadn't at our disposal the precisely controllable spark gaps, which Tesla had developed and used. If one wants to obtain an if possible high tension voltage change (du/dt) for an interaction with neutrinos, then according to today's technology considerably more favourable concepts are offered, for instance with hard switching Power-MOS-Transistors. 50 Kilovolt per microsecond were to meet.

Therefore we changed the technology and worked from now on with fast semiconductor switches. From the laboratory radio now only a hissing and crashing came out of the loudspeaker, if our experiments were running.

At 12.10.1999 we for the first time succeeded to build up a transmission line for Tesla radiation. Doing so the transmitter and receiver were situated in different rooms of my transfer centre. The transmitter coil was operated in self-resonance and fed only from a small function generator with 10 Volt. But if the diplomand held a fluorescent lamp near the spherical electrode, then it started to glow.

Following I observed at the oscillograph the signal of the receiver coil, which as well was operated in resonance. If the diplomand switched off the transmitter, also no receiver signal was present anymore. But if it concerned radio waves according to Hertz or Tesla radiation, with that still wasn't answered.

Therefore I prompted still another experiment. This time the colleagues observed at the transmitter the signal at the function generator, while I unclamped and again clamped the receiver. The shouting with joy from the adjoining room indicated that it had been observed, how the receiver reacted upon the transmitter and both are in resonance with each other. Such an effect characteristic for scalar waves, is a radio technical impossibility. In the case of radio with Hertzian waves an *effect back from the receiver on the transmitter* is unthinkable by principle.

Fig. 19.11 A: Measurement record for scalar wave transmission line

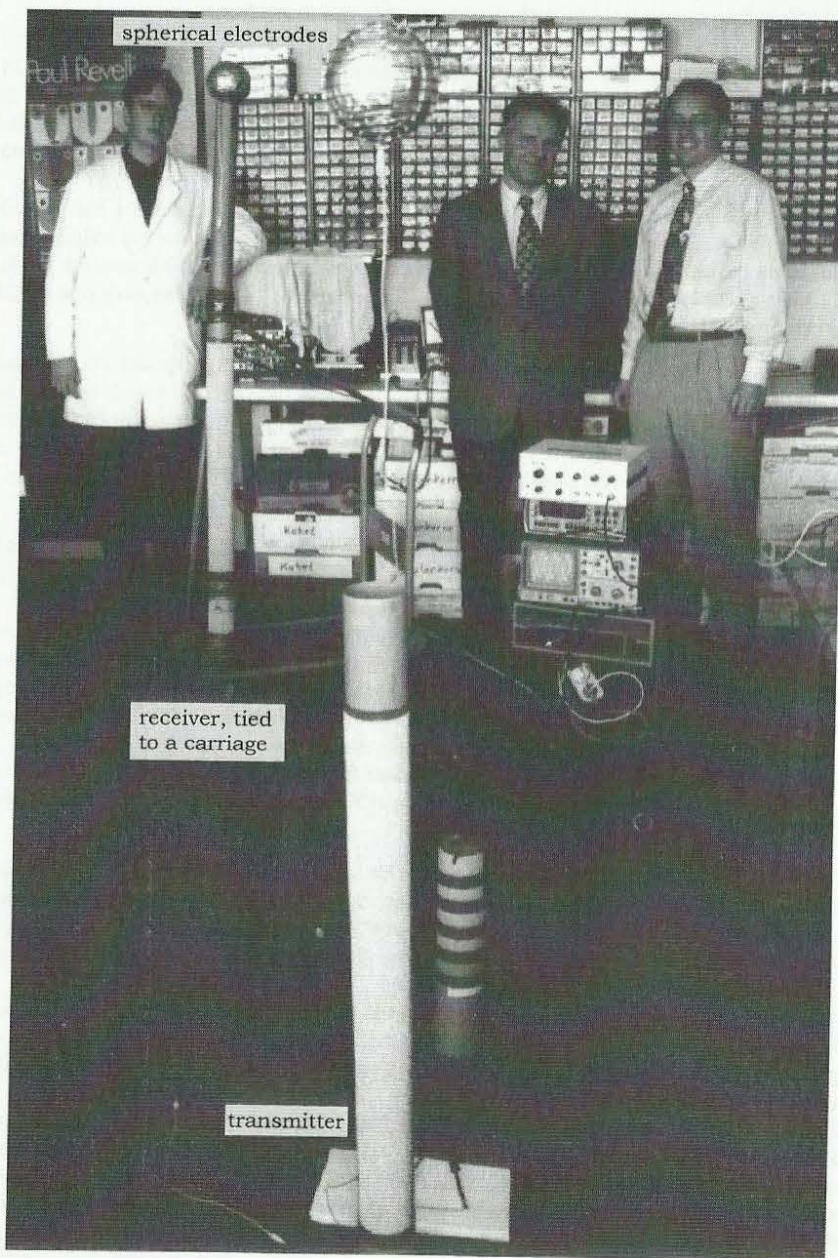


Fig. 19.11 B: Scalar wave transmission line according to Tesla
f.l.t.r.: M.Andresen (diplomand), author (TZ-head), Dipl.Ing.M.Rehm (project leader)

In the next step we let glow the famous little lamp on the side of the receiver. As a consumer served a small light-emitting diode, of which the light intensity remained unchanged in the case of resonance. To prove this, we placed the receiver on a carriage and rolled the corridor in the TZ up and down with it. If the receiver was only slightly out of tune, then from the then arising fluctuation the *standing wave nature* could be observed perfectly.

With the setup it can be demonstrated well, how the law of the square of the distance, of the decrease of the field strength with the square of the distance, known from radio technology hasn't got validity anymore for scalar waves. Very clear also was the energy transmission of scalar waves out of a closed Faraday cage.

In the end we have determined the *degree of effectiveness of the scalar wave transmission line*. An output power of 49 mW resulted from the measurements of the current and tension voltage for a loading of the receiver with a 100 Ohm resistance. Simultaneously the power taken up by the transmitter amounted to 233 mW. If we however subtract the idle power consumed by the transmitter from this, and that was determined to be 223 mW for switched off receiver, then actually only 10 mW are available for the wireless energy transmission. The degree of effectiveness according to that would be 490%.

If we here really have obtained an *over-unity of 4.9* then the receiver must have collected along free space energy, or did some parts evade our power measurement? The sceptics I recommend an own rebuild, since alone the proof of the scalar wave properties inevitably has to lead to every Maxwell burdened HF technician breaking with the old belief.

19.12 Neutrinoanalysis, the alternative splitting of water

Free after the plans of Stan Meyer we filled diverse containers with water and let it "crash". If then bubbles raised and it got exciting, we changed the frequency and exactly paid attention to the effect remaining the same or if it increased as well with increasing frequency, thus if we only watched a classical electrolysis, or already the wanted "neutrinoanalyse", as we were accustomed to term the splitting of water in its parts under the influence of neutrinos in the laboratory. Typical for that is a bubbling and "cooking" of the actually cold water produced by the rising gas bubbles (fig. 19.12).

We also have reversed the principle. Doing so we have switched the container as neutrino receiver and measured the forming charge carriers. The passive system proved to be really moody. On the one hand tension voltages of several hundred millivolts at a load resistance of 10 megaohm can be realized, on the other hand the charged gas particles and the as secondary reaction in the water set free ions continually change the electric conductivity, so that the cause to be measured, the neutrino radiation, hardly can be reproduced on the displayed result. The water hence has to be changed more often and also the developers found themselves between jubilation and disillusionment subject to continually changing feelings.

<i>: A. und I. Schneider: Neutrino-Power - Energie aus dem Kosmos, Bericht zu Vortrag und Demonstration des Autors am 25.11.99 in Villingen, NET-Journal 12/99, S. 4-6; Interview mit Prof. Dr.-Ing. Konstantin Meyl: Durchbruch in der Freien-Energie-Forschung, NET-Journal 12/99, S. 7-9



Fig. 19.12:
Experimental
constructions for
the „neutrinoanalyse“.

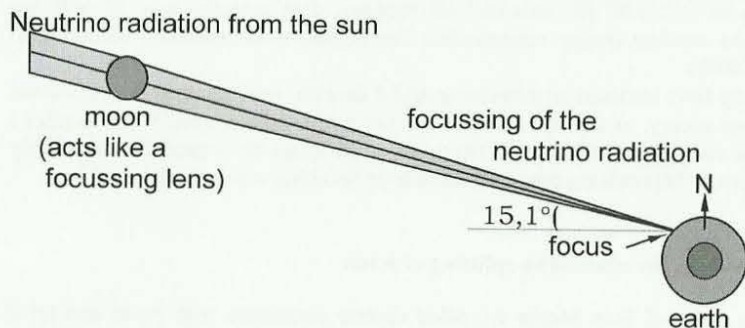


Fig. 20.1: Course of the neutrino radiation focussed by the moon
on the occasion of the eclipse of the sun
at the 11th August 1999.<i>

concerning the calculation of the position of the sun at 11.8.99:

at 21.6. after 0 days is	$23.4^\circ \cdot \cos 0^\circ = 23.4^\circ$	northern latitude
at 21.9. after 92 days is	$23.4^\circ \cdot \cos 90^\circ = 0^\circ$	= equator
at 11.8. after 51 days is	$23.4^\circ \cdot \cos \frac{51 \text{ days}}{92 \text{ days}} 90^\circ = 23.4^\circ \cdot 0.644$	= <u>15.1° n. lat.</u>

At 11.8.1999 the sun at noon stands above latitude 15.1.

<i>: Konstantin Meyl: Zur Brennglaswirkung des Mondes bei einer Sonnenfinsternis, NET-Journal, Jg. 4, Heft Juli/August 1999, Seite 13-17

20. Cosmic experiments

As long as no usable technical gauges are available, we should observe and study nature and all celestial phenomena. Here the scalar waves with all their properties are presented to us. That is valid in particular for the case that the cosmos makes an experiment with us and with the entire earth. Such a situation offered the eclipse of the sun of August 11 1999 as an unique "bulk experiment" to which travelled millions of spectators, to participate in the cosmic experiment as voluntary test subjects.

My warning for possible influences proved to be absolutely justified afterwards, even if only comparatively few took note⁴⁹. In view of strong changes in the EEG of individual test subjects and a proven temporary acceleration of the rotation of the earth science once more stands before insoluble problems.

To answer the open questions I want to start with my indications, which I have published in anticipation of the cosmic event of August 11⁴⁹. Afterwards a revision and the attempt of an interpretation from the scalar wave view follows. Perhaps this way leads to a reliable prediction of earthquakes and other cosmic events. After that we perhaps know more about origin, availability and further important parameters of the sought-for space energy.

20.1 Millions of voluntary test subjects at 11 August 1999

Astronomically seen, it concerns a harmless natural spectacle as it already was observed more often, if the moon glides between sun and earth and its shadow in broad daylight immerses parts of the earth in a dark night. The special thing about the eclipse of the sun of August 11 1999 however was, that the sun activity just strived for its maximum value in its eleven year cycle, and the orbital distance to the moon simultaneously reached a minimum value. In addition we must pay attention to the special situation of the angles (fig. 20.1). Due to the extremely rare constellation the area of complete shadow at first was larger and darker than normal. On August 11 it had a width of 110 kilometres.

The sun besides the light also sends us solar neutrinos and for those the moon is transparent. It with regard to them acts like a glass ball, which lets the light it is true pass through, but in doing so refracts it. The glass ball acts like a convex focussing lens, which focuses the arriving rays behind the ball in a focus.

To slow down and collect neutrinos the moon it is true is too small, but it will be able to influence the flying direction. Very fast neutrinos, which run through the moon, hardly will be diverted. The slow and biologically active ones however will be bent stronger.

At this point it would be of utmost importance to know, in which distance from the moon the rays run together and combine into a focus.

<i>: Konstantin Meyl: Zur Brennglaswirkung des Mondes bei einer Sonnenfinsternis, NET-Journal, Jg. 4, Heft Juli/August 1999, Seite 13-17

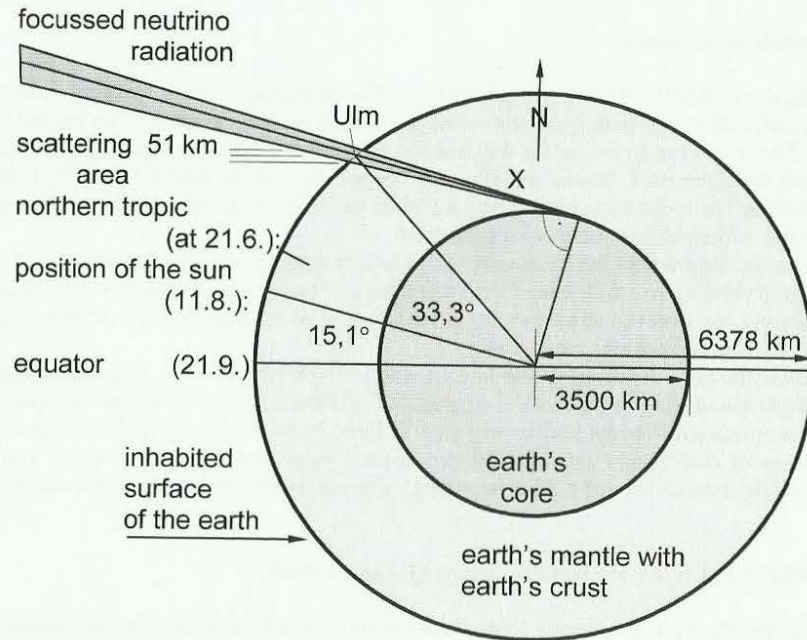


Fig. 20.2: The course of the focussed neutrino radiation at 11.08.1999 for 48.4° northern latitude. (this corresponds to the line Ulm-Augsburg-Freising)

calculation of the critical latitude:

$$\sin \alpha = \frac{3500 \text{ km}}{6378 \text{ km}} = 0.5488 \text{ resulting in the angle } \alpha = 33.3^\circ$$

The neutrino rays touch the earth's core at: $33.3^\circ + 15.1^\circ = 48.4^\circ \text{ n.lat.}$

minimum distance to the moon: $r_m^* = 358000 \text{ km}$

radius of the moon: $R_m = 1738 \text{ km}$

radius of the earth: $R = 6378 \text{ km}$ (at the equator)

length of the Tangente: $X = 3500 \text{ km} / \tan 33^\circ = 5332 \text{ km}$

scattering radius: $r_x = X \cdot \frac{R_m}{r_m^* + X} = 25.5 \text{ km}$ around the centre line.

Focussing without scattering on earth's surface increase to

$R_m / r_x = 68 \text{ times}$, resp. with scattering to
 $68 \cdot 0.5 \cdot 0.8 = 27 \text{ times}$ the natural neutrino radiation!

For that we again bear in mind that neutrinos as particle radiation propagate in space in the sense of a plasma wave. Since the oscillation of such a longitudinal wave takes place in the direction of propagation, it neither knows a distinct velocity of propagation nor an upper limit.

The sea of neutrinos in which we swim, is a combination of differently fast particles. The slow ones are bent stronger by the moon, with the property of a convex focussing lens, so that the focus should be looked for near the moon, whereas the fast ones hardly are diverted. Their focus lies further distant from the moon than the earth, up to the extremely fast cosmic neutrinos, which experience almost no diversion, because they, as a result of the Lorentz contraction, are small enough to tunnel through any kind of matter.

If neutrinos, depending on their velocity of propagation, have their focus partly before and partly behind the earth at an eclipse of the sun, then it comes up to a conclusive logic that there actually exist such, of which the focus lies exactly in the centre of the complete shadow on earth's surface. But thereby the question is asked, which biological effectiveness these neutrinos have or which damage they bring about.

20.2 Model of calculation for the cosmic experiment

More than a year ago the results of an international neutrino experiment have been made public. Thereby for the first time the order of magnitude of the natural radiation density was recorded, after the detector before having been calibrated at an artificial source of neutrinos. As the perhaps most important result at night only half as much solar neutrinos could be detected as during the day with the immense Super-Kamiokande detector in a Japanese mine. With that the here taken interpretation, that earth's core collects neutrinos, meanwhile even is proven experimentally! For that it has to interact with the particles and that means, it has to exert a force of attraction on them. Thus the earth's core during an eclipse of the sun will further amplify the effect of focussing if the konzentrierte neutrino ray is directed on earth's core. This critical point we have to calculate (fig. 20.2).

The proportion of the radii of earth's core (3500 km) and the entire earth (6378 km) results in the sine of the sought-for angle and that amounts to 33.3 degrees northern latitude. At August 11 moreover is added that at noon the sun with regard to the equator is standing at 15.1 degrees, so that a first extreme focussing should be expected, if the centre of the complete shadow intersects latitude 48.4. This would be the case for the latitude of Ulm in direction Augsburg and Freising.

Now we would like to know more about the amplitude of the focussed radiation, about the spatial extension and the period of time. Without concrete data material we have to proceed from several simplifying assumptions. If we therefore assume, 50% of the at earth arriving and biologically relevant neutrino radiation stems from the sun, which in the case of an eclipse of the sun is focussed to 80% and scattered to 20% by the moon. If we further assume the focus just touches earth's core, then between Ulm and Augsburg a sphere of action of 50 km can be expected, within which the neutrino radiation on the average reaches 28 times the value of the natural radiation. The intense irradiation under these assumptions will last one minute.

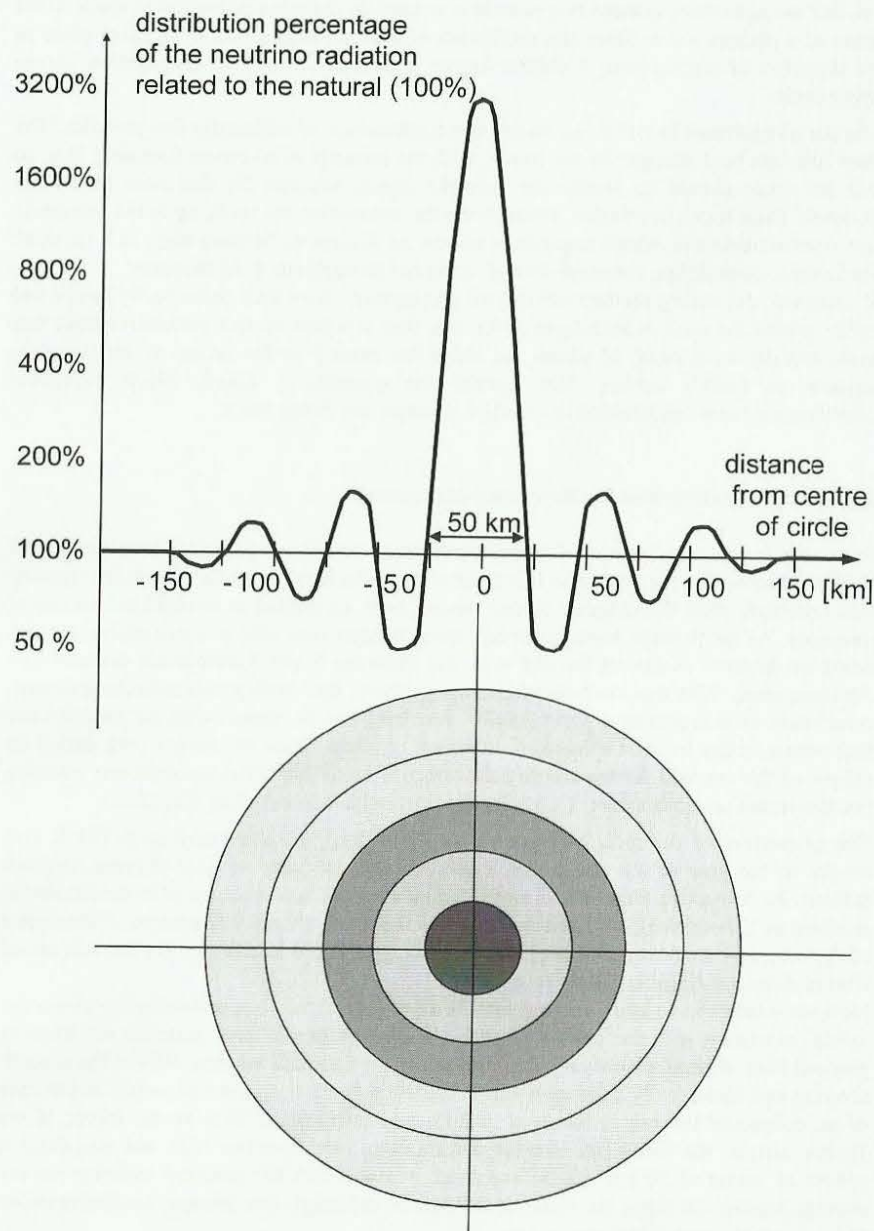


Fig. 20.3: The spatial distribution in the case of focussing of the neutrino radiation by means of the burning glass effect of the moon on earth's surface.

Of course the calculated values only are valid to the extent, as also the assumed boundary values apply. After August 11 we know more about this cosmic experiment, about the spatial distribution and indirectly about the interaction with earth's core, about the physical properties and the biological effectiveness of the at present available neutrino radiation.

20.3 Physical technical consequences

The neutrino radiation is a scalar wave radiation which, as mentioned, can be perceived by sensitive people even without aids. Who hasn't at his disposal this sensitiveness, is recommended a simple setup.

For that one hangs up a fluorescent lamp, connects the one end with a piece of wire, as it were as antenna, and the other end is grounded. For a scalar wave radiation which increases fast, the lamp should start to glow by itself. Under big transmitting installations this method already has been successfully applied by many allotment gardeners thousandfold. I hence recommend all research scientists of eclipses to test themselves the possible field fluctuations in this simple way.

From a technical viewpoint first of all the atomic reactors and their nuclearly contaminated waste will be concerned by a fluctuation of the neutrino radiation. In view of present eclipses of the sun an accident can be expected less, since the neutrino radiation it is true for a short time reaches an extreme maximum, which averaged temporally and spatially over the whole event again is relativized somewhat. The relations shall be clarified with an example (fig. 20.3).

Whoever places himself in the centre line of the complete shadow on August 11, at first will detect a decrease of the neutrino radiation to 50 to 60 percent, then a steep increase to 2800 percent and from the summit again the whole backwards, while standing on the earth he turns by under the moving moon shadow. The ring with half the radiation, which reaches us first, doesn't pose a problem since, as said, we only have half the radiation in every night. Some animals and plants as a result erroneously will set out for sleep.

The wave distribution one can imagine like that in the case of a pool, in which was thrown a stone. But we still don't know the resonance frequency, for which reason the length of the cycle depicted in fig. 20.3 is chosen arbitrary. The actual deviation from the distribution given by nature is the peak in the focussed ray centre. Living nature must stand large fluctuations of the solar radiation, since every supernova sends us a relatively short batch of fresh neutrinos. Where we have difficulties is the question, how much fluctuation still can be tolerated by mankind.

The question for possible biological consequences is due to be dealt with in view of the announcement of a complete shadow tourism causing concern, as it is awaited for August 11. At the incomplete state of knowledge about the properties of neutrinos, every trip to the complete shadow remains a journey into the unknown.

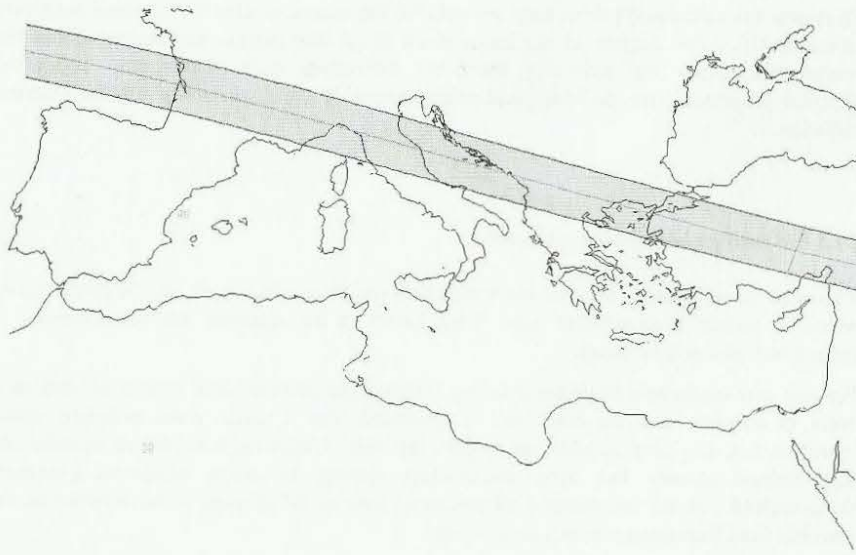


Fig. 20.4 A: The course of the complete shadow for the ancient eclipse of the sun at 28.5.585 B.C.

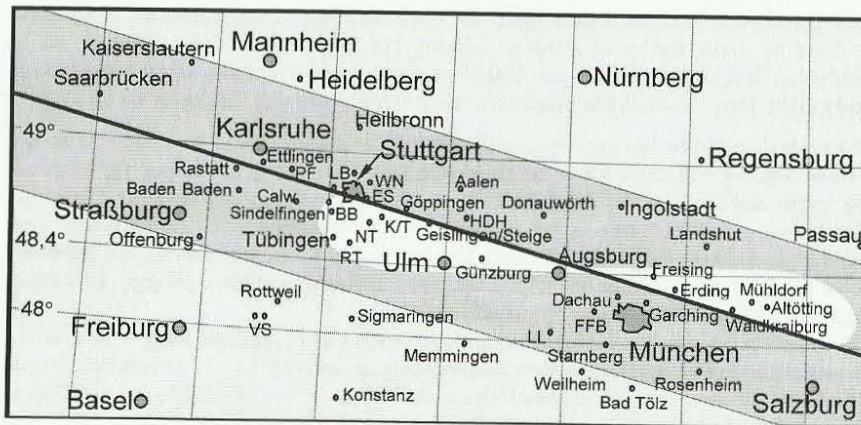


Fig. 20.4 B: The course of the complete shadow over south Germany at August 11 1999 (grey) and the possible course of the focussed neutrino radiation (white).

20.4 Biological consequences

In the case of an eclipse of the sun effects on the biology, like problems with the heart among affected, at least can't be excluded. If the scalar wave density increases above the density which is normal, then this has a positive effect on the economy of energy, as long as the body is capable to regulate the amount taken up. If the regulatory process however should fail, then the risk of a self-inflammation exists. Also straw bales and other organic and inflammable materials could thus go up in flames.

But before that happens, first the information technical influence of the scalar waves will show. Here we have to expect a psychotronic influencing, which is showing in a limited ability of perception. History teaches us as an example^{<i>} that a by Thales of Milet predicted total eclipse of the sun at 28.5.585 B.C. compulsorily has ended a battle in Asia Minor between the Medes and the Lydians, because the soldiers apparently most literally had gone out of their mind (fig. 20.4 A).

Actually all in connexion with the free energy addressed phenomena are conceivable, from the "neutrino" up to the acceleration of the radioactive decay. It would be understandable, if in a water glass bubbles should rise, even if no carbonic acid is contained in the water at all. After man not having at his disposal a sense organ for his own energy source, the brave in the complete shadow of an eclipse of the sun are recommended smaller technical experiments and observations. The cautious however will avoid the area from the start.

As counter movement to the complete shadow tourists there will also be refugees, who believe in the predictions of Nostradamus, who in his quatrains has predicted a messenger of fright over Europe for 11.8.1999. He mentions Lyon, Ulm and Moskau, which actually lie on one line^{<ii>}.

The line of the complete shadow however will run under another angle from Plymouth in South England over Ulm to Bukarest and further into Turkey. Maybe Nostradamus wasn't a clairvoyant at all, but merely a good calculator, or he knew someone who could calculate excellently, after all he has indicated the time and even Ulm as the centre correctly. Apart from the small angle error, in addition the direction is correct (fig. 20.4 B).

Worth paying attention to also is, that he contrary to his habit here gives a concrete date which astronomically can be calculated unambiguously, that he simply skips the numerous eclipses of the sun of the past and only points to the one of 11.8.1999, which runs crossways through South Germany. Extremely sinister are his forecasts, which mustn't commented on further, since he speaks of "Mort et Tombe", of death and grave^{<ii>}.

<i>: Herodot: Historien, Kröners Taschenausgabe 224, S. 33 (cf. page 586 and the modern misinterpretation note 9 on page 754); further sources: dtv-Atlas zur Weltgeschichte S. 45; resp. Propyläen-Weltgeschichte I, S. 168.

<ii>: Michel de Notredame (1503 bis 1566), Mathematiker, Astrologe, Leibarzt von König Karl IX: Centuries (1558) X, Vers 72.

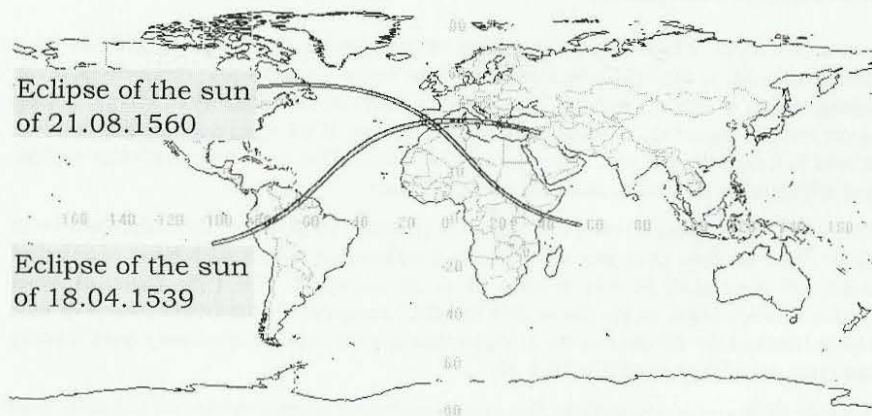


Fig. 20.5 A: The total eclipses of the sun of 18.4.1539 and 21.8.1560

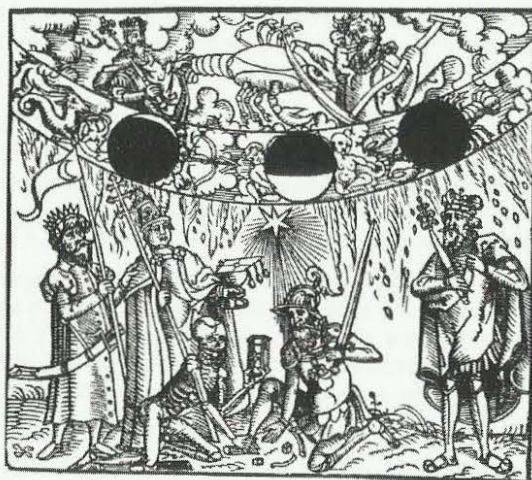


Fig. 20.5 B: Under the impression of the last two eclipses of the sun over Europe death and war play dice about the fate of mankind during the eclipse of the sun of 1562. ^{<i>}

^{<i>}: Werner Raffetseder: Sonnenfinsternis, Hugendubel Verlag, München 1999, ISBN 3-89631-302-9, Seite 156.

20.5 Epilogue to August 11th 1999

My indications have been published two weeks before the cosmic event in the NET-Journal^{<i>}. The public interest was immense. Now, after the spectacle is over, it is time for an analysis^{<ii>}.

Besides numerous very subjective descriptions of eyewitnesses, which scientifically hardly can be analysed, at numerous polytechnics over the world has been observed, how Foucault pendulums suddenly and completely unexpected have deviated from their normal swinging direction. With this device 150 years ago the rotation of the earth had been detected in Paris.

Since according to prevailing textbook opinion an eclipse of the sun is a purely optical phenomenon, the scientists world-wide are having a big problem. Which force here has torn at our earth and caused relative accelerations of the kind that the pendulums could turn out of their usual plane and changed into an elliptic orbit, while the shadow of the moon ran over us? The gravitational force isn't even roughly capable to that. That merely has brought a 50 cm higher flood. The enormous force effect, which even puts the gravitation in the shade, actually only can come from the interaction of the neutrinos.

Different reports are present concerning the influencing of the radioactivity. In the cases, in which measurement samples have been used, almost no change could be observed. This is confirmed by a video tape, which northeast of Munich directly in the centre of the complete shadow documents an experiment, in which during the whole time the radioactivity of 1 kg crude granite is monitored with a professional dosimeter.

The background might be that calibrating samples are chosen in principle under the aspect of being influenced the least by outside interference sources. It therefore would have been better, if we instead had put a lettuce as a biological and broadband sample in front of the device. Because there, where one anyway hadn't expected deviations and thus neither were measured calibrating samples nor unfortunately were made recordings, is said to temporarily have occurred a visible increase.

Even in the case that somewhere accidentally should exist recordings, the increase is too small, to help explain traditions from the Middle Ages, according to which is talked about "stinking fog" and about "aggressive damps, which fall from the sky". Other sources speak of harmful radiations, which one regarded as the trigger of plagues.

It is said: "They poison the drinking water and the crops and make people sick"^{<iii>}. Crops after an eclipse of the sun either should not be harvested at all or only after a violent shower. The warnings for a poisoning "without adding poison", which reach back into the 19th century, suggest the assumption that it concerns results of a radioactive contamination.

^{<i>}: Konstantin Meyl: Zur Brennglaswirkung des Mondes bei einer Sonnenfinsternis, NET-Journal, Jg.4, Heft Juli/August 1999, Seite 13-17

^{<ii>}: From the third and extended edition of this second part concerning Electromagnetic Environmental Compatibility the following chapters are completed.

^{<iii>}: Mark Littmann/Ken Willcox: Totality - Eclipses of the Sun, Honolulu 1991, Kapitel 4: Eclipses in Mythology; nachzulesen bei Werner Raffetseder: Sonnenfinsternis, Hugendubel Verlag, München 1999, Seite 130/131.

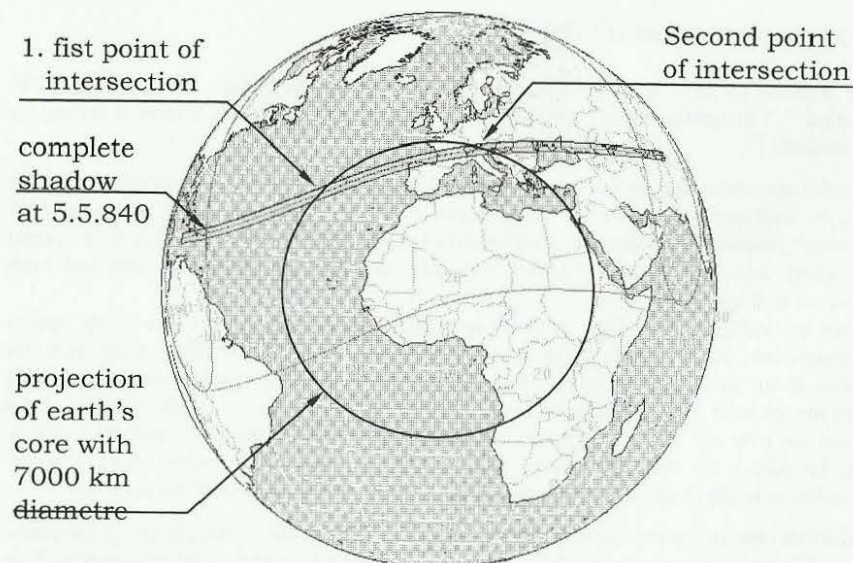


Fig. 20.6 A: Eclipse of the sun of 5. 5. 840 AD.

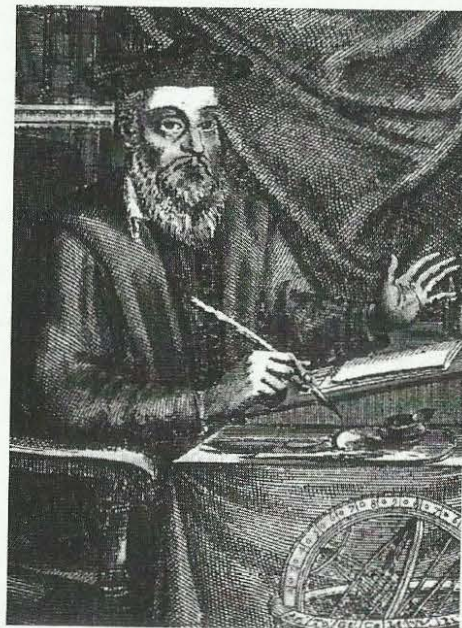


Fig. 20.6 B: Nostradamus announces catastrophes for 1999 in the Centuries of 1558.<i>

<i>: Bryan Brewer: Eclipse, Chapter 1: Eclipses Throughout the Ages, Seattle WA 1991, S. 20, cited in Werner Raffetseder: Sonnenfinsternis, Hugendubel Verlag, München 1999, ISBN 3-89631-302-9, Seite 130, Bild Seite 159.

20.6 Dropping of the neutrino radiation

Plagues of that kind, which in the Middle Ages have claimed lives as a result of an eclipse of the sun, hardly are verifiable, unless a prominent victim was among them, like e.g. the son and successor of Charlemagne, emperor Ludwig I. He 5.5.840 witnessed an eclipse of the sun with a totality of five minutes. Further it is said: „The fright, which this experience gave him, little later shall have torn him to death“<i>.

According to that there must have existed times, in which the radioactivity present in the countryside and stored in the body of a person during an eclipse of the sun could be set free and be the undoing of the affected. At the same time such a decontamination of radiation acts cleaning for nature.

In this case only the interpretation of Nikola Tesla provides us an explanation, which states that the neutrino radiation causes the radioactivity<ii>. Textbook physics however doesn't know this causality. For that the primeval fears of humanity are pure superstition. The prophecies of Nostradamus even are referred to as counter evidence.

But the question remains open, why his predictions concerning August 11 didn't happen. Obviously, so has shown us the cosmic experiment, the neutrino radiation relevant for the setting free of radioactive radiation drastically has decreased since the Middle Ages.

Nostradamus personally has occupied himself with the translation and interpretation of hieroglyphs and has written down his insights - surely out of fear of the inquisition - in the form of encoded quatrains. According to that he has based his considerations on considerably older sources, which presumably stemmed from a time, in which a considerably higher radiation prevailed.

We have to proceed from the assumption that the scientists of the Semitic-Aramean people of the Chaldeans, which ruled Babylon from 626 B.C., were just as capable as astronomers of today, to exactly calculate an eclipse of the sun even centuries and millenia in advance. After all the Saros-cycle to determine eclipses of the sun is a discovery of the Chaldeans. What they however couldn't know and we ourselves still can't indicate today, is the prevailing density of the cosmic radiation at a future time. But that obviously has changed considerably.

The natural magnetic field strength for instance is recorded at the baking of earthenware jugs and vases, by strengthening along the parts containing magnetite. From the measurement of ancient earthenware goods we know that in antiquity a field strength must have prevailed which was 3 to 4 powers of ten higher.

According to the here presented theory the earth owes its magnetism its core and that again draws its energy from the neutrino field. According to that also the neutrino radiation should be subject to the same decrease.

If therefore the Babylonians out of the radiation situation at that time in the interpretation of Nostradamus and other fortune-tellers, who presumably all more or less have written each other off, have predicted a catastrophe for 11.8.99, then this scientifically is just as untenable, as the today widespread hubris, with which the knowledge and the reports of experience from ancient times are dismissed as superstition.

<ii>: cf. chapter 17.2 Nikola Tesla, the discoverer of the neutrino radiation, p. 133

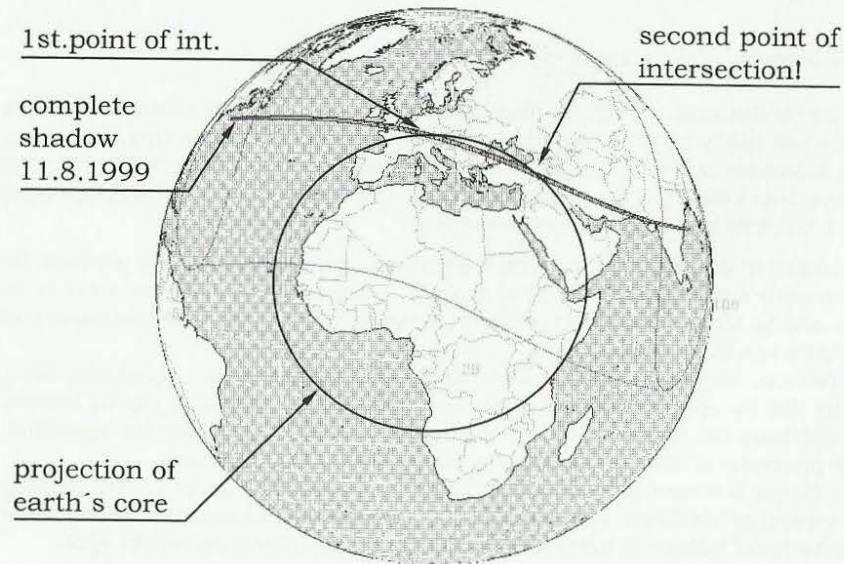


Fig. 20.7 A: Eclipse of the sun of 11.8.99 (declination: 15°)

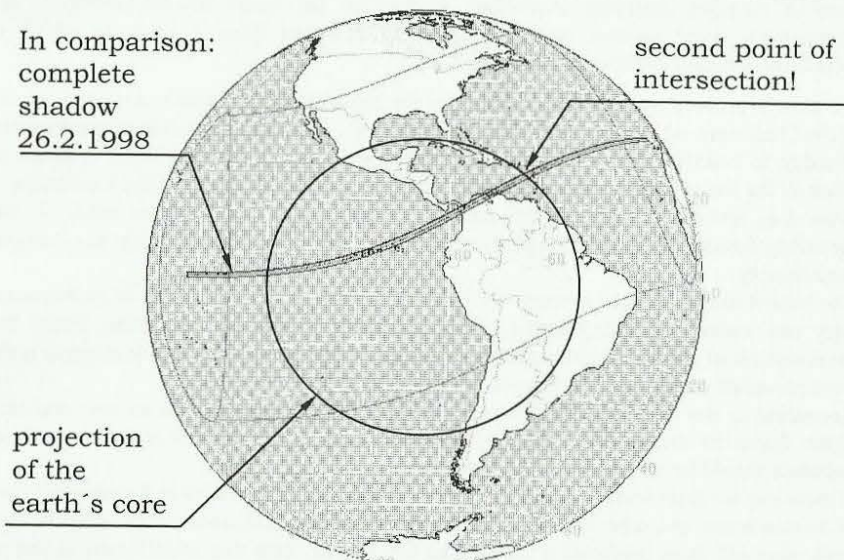


Fig. 20.7 B: Eclipse of the sun of 26.2.98 (declination: -9°)

<ii>: Particularly violent earthquakes since 11.8.1999 (excerpt):
 Turkey 17.8. (strength 7.8) till 19.8. (5.0), 31.8. (5.2), Greece 7.9. (5.8),
 Turkey 13.09. (5.8) and finally Taiwan 20.9.99 (strength 7.6) in a rhythm of 6
 to 7 days! Complete list in the internet under:
http://www-seismo.hannover.bgr.de/ermos_listing.html

This "superstition" mentions tremendous natural disasters like floods like the Flood or destructive earthquakes often as a direct result of an eclipse of the sun, and as the worst consequence the end of the world^{<i>}.

Almost all reporters and newsreaders in the evening of August 11 full of irony pointed at the non-occurrence of the end of the world and spread the conviction that according to prevailing physical ideas something like that isn't possible at all. They at that time couldn't know that the anatolic plate, which the complete shadow had crossed, had gotten into motion. The relatively weak earthquakes, which 11.8. shook Cyprus and at the same time Iran, only were spontaneous harbringers.

In the following weeks the staggering core of the earth made us clear that there had been done force to it. Severe earthquakes with thousands of aftershocks followed each other and one message of terror chased the next^{<ii>}. Public authorities however take care not to or decline to make a reference to the eclipse of the sun.

20.7 Analysis and comparison of the occurrences

If we for comparison consult the total eclipse of the sun of 26.2.1998, for which the complete shadow of the moon coming from the Pacific Ocean had run over the Caribbean into the Atlantic Ocean. Exactly the moment it crossed the Caribbean island Montserrat, the volcano Soufrière erupted.

Pure coincidence says science, which hasn't got an explanation model at all for a relation with the supposedly purely optical phenomenon. But this argumentation is relativized, if according to fig. 20.2 the tangential collecting of solar neutrinos by earth's core is considered. This process best can be compared with photon radiation, which is tangentially collected and directed into an orbit by a black hole inside the radius of Schwarzschild.

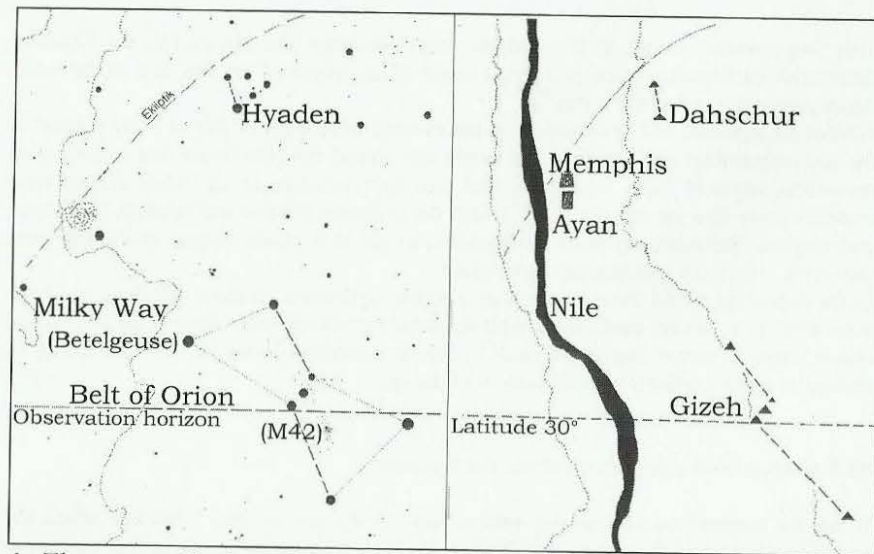
Since the shadow of the moon always draws a straight line on the earth, two points of intersection are present with the circle of the projection of earth's core on earth's surface, for which the radiation focussed by the moon just touches earth's core and in that way experiences an additional concentration. The first point of intersection at that time was situated in the Pacific Ocean; but the second one was situated exactly at the Caribbean island Montserrat (fig. 20.7 B).

This time, at August 11 1999 the first point of intersection was situated in South Germany, the second in Iran, and again the focussing at the second point of intersection has shown a devastating effect. The entire continental plate has gotten in motion (fig. 20.7 A).

Another strange phenomenon has occurred in the USA at the same time as the eclipse of the sun. A tornado swept with its destructive force right through Salt Lake City. It is remarkable that no meteorologic indications were showing before and hence official observation authorities had no possibility of warning for the tornado. Had here part of the focussed neutrino radiation been redirected at earth's core and given a rotation, to again screw out into the sky on the other side of the earth at Salt Lake City?

<i>: Werner Raffetseder: Sonnenfinsternis, Hugendubel Verlag, München 1999, ISBN 3-89631-302-9, Seite 120.

<ii>: Collection of particular violent earthquakes since 11.8.1999; see fig. 20.7.



A: The constellation of Orion B: The sanctuary of Osiris

Fig. 20.8 A and B: The ancient Egypt pyramids, a terrestrial model and copy of the starry sky?^{<i>}

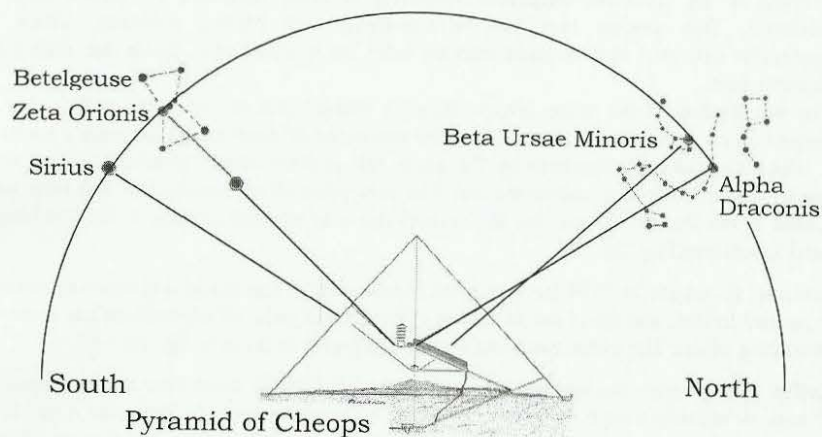


Fig. 20.8 C: The orientation of the four shafts of the Pyramid of Cheops to four different stars around the year 2500 B.C.^{<ii>}

^{<i>}: Robert Bauval, Graham Hancock: Der Schlüssel zur Sphinx (Keeper of Genesis), List Verlag München 1996, ISBN 3-471-77188-3, S. 286 und 287.
^{<ii>}: dito page 86.

20.8 Radioactive decontamination with the help of a supernova

A mighty source of neutrinos forms the black hole in the centre of the Milky Way. For us, on an outer spiral arm of the galaxy, the distance to the centre is gigantic as well, so that a relatively equally distributed spectrum of differently fast neutrinos arrives at our world, which represents a kind of basic energy technical supply for the solar system and our world. For the fluctuations between day and night, or the focussing by the moon or other planets the "participants" in the solar system are responsible themselves.

In contrast to that a supernova, the explosion of a star, is a considerably smaller source of neutrinos, which however also is possible less distant to the earth. In addition it is a singular event, in which all neutrinos are set free simultaneously within a fraction of a second. They arrive at us one after another. First the fast and hard radiation reaches us as it were as harbinger. In the course of time the arriving neutrinos then become slower and slower, until they sometime become biologically relevant. If in the end everything is over, we can see the cause, only now the supernova is showing in the telescope.

If we assume such an event takes place, with perceptible might and in a distance of 500 light years, then this neutrino radiation overlaps with the general background radiation and a characteristic over-intensification of neutrinos of a certain velocity of propagation occurs. This problem then occupies us for 500 years, where the respective radiation situation permanently is changing depending on the time after the explosion.

If we in this way of looking dare a judgement of the cosmic events in historical time, so makes believe much the assumption that the radiation in the last hundred years has worn off completely. Edgar Cayce treats in the book "Our Ancestors" different cultural circles from the old Indian up to the Hopi, in which still is talked about an energy technical use of quartzes and other materials^{<i>}.

We indeed can theoretically comprehend that the neutrino radiation can let an oscillating quartz glow, if it is stimulated in its resonance frequency, but technically the technology today can't be realized anymore. Possibly the chance for technological use only existed for a few years or decades.

Presumably also the pyramids originally have been built as resonators, to slow down fast neutrinos to a technically utilizable speed. But in the course of time the original function was unnecessary and the neutrinos had gotten so slow that in antiquity alternatively an use as electrostatic lightning generator or as Nekropolis took place. Today they only stand in the countryside as unusable monuments of a gone epoch.

Many ancient techniques, to which I will come to speak in the third part, in this way just as unexpected become plausible as the radioactive decontamination described in the Middle Ages.

^{<i>}: Hermann Wild: Technologien von gestern, Chancen für morgen; Jupiter-Verlag Bern 1996, ISBN 3-906571-13-0, (z.B. S. 77 und 145 bis 163).

Constellation at 23.9. around 10500 B.C. at sunrise:

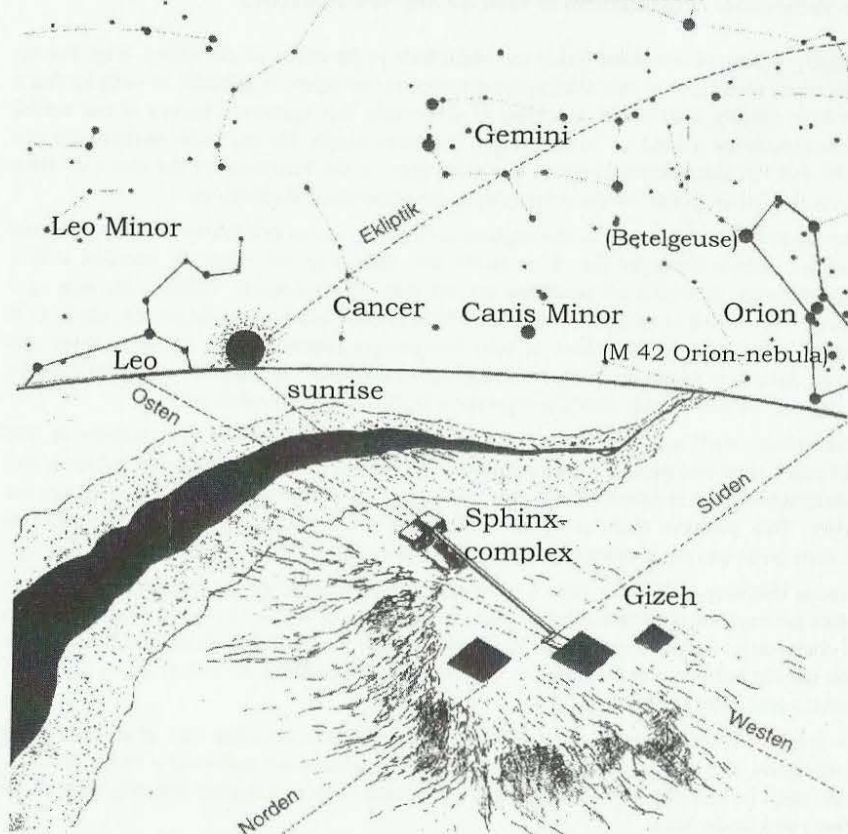


Fig. 20.9: The orientation of the pyramids of Giza makes believe an operation of the installation around 10500 B.C. <i>

<i>: Robert Bauval, Graham Hancock: Der Schlüssel zur Sphinx (Keeper of Genesis), List Verlag München 1996, ISBN 3-471-77188-3, S. 324.

The two research scientists take the hypothesis of an orientation of the ancient Egypt pyramids after the starry sky around 10500 B.C. This however is not compatible with their thesis of the aligning of the shafts to individual stars around 2500 B.C. (fig. 20.8 C). How should the precise worked shafts later have been integrated? It would correspond a certain logic, if an orientation of the buildings to the energy source at that time would have taken place; but doing so it should be taken into consideration that the stars are exploded as supernovae and today hardly might be observable.

Despite several good ideas more questions are raised by the book, than are answered. Have the technicians 2500 B.C., after making restorations, experimented with the buildings and sought-for alternatives of use?

20.9 Free energy from the Orion constellation

After all hundred years ago still the last unreliable rests of the wearing off neutrino radiation were available to Tesla, Moray, Keely and other inventors for the experimental proof of free energy, of which we today aren't able to rebuild and show in function one single model. And that, although the technical aids have gotten better for many times.

But for the free energy inventors that isn't a reason, to immediately stop their efforts, because the next supernova already is announced by the actual swings of the Foucault pendulum. It could concern the explosion of the giant red star Betelgeuse in the constellation of Orion in a distance of 500 light years <i>. It well may be possible that it already shortly has exploded and that it will supply us with fresh and free energy for scarcely the next 500 years and at the same time will give the earth a good shake, thanks to its might and a not too great distance.

The violent reaction, which happened after August 11, of earth's core, which is the first to interact with the fast particles, should make every astrophysicist clear that here something is coming towards us!

It would be obvious, if the reactions of earth's core still increase. Every year particularly around 21.6., if the sun is standing in the Orion constellation, deviations can be expected. But then the supposed source of neutrinos, Betelgeuse, the sun and the earth don't exactly form a line, because the giant red star lies 7.4° below the ecliptic. Because of that the rays slowed down and focussed by the sun run away over the earth. At the earth then rather would be expected a dropping of the radiation.

If the phase of shakes of the earth sometime should be over, a decontamination due to an increased radioactive decay and various biological effects should be expected. Then, perhaps in 200 years, also many concepts concerning free energy, today still dismissed as hopeless, suddenly will function entirely by themselves.

The relatively free possibility of development of the human mind and the present sciences we possibly owe the special circumstance to be able to live in a time of minimized field strengths. Strong fields however can lead to psychotronic influencing of the consciousness and to an outside determining of mankind. This circumstance seems to have caused Tesla to compare man with a robot, and to call him an independent machine controlled from outside <i>.

<i>: Freek Reijmerink: Sternatlas Deutschland, Weltbild Verlag 1990, S.12 (ein sterbender Riese) und Illustrierte Wissenschaft, Nr. 9, 1999, S. 7, Brennen die großen Sterne in den Sternbildern je aus? Die Entfernungsangaben schwanken zwischen 270 Lichtjahren (Meyers Lexikon), 310 (Sternatlas), 500 (Ill.Wiss.) und 652 Lichtjahren (Cambridge Enzyklopädie d. Astronomie).

In the observable domain of the starry sky one statistically seen has the chance, to experience every second a supernova.

<i>: Nikola Tesla: How cosmic forces shape our destinies, New York American, 7.2.1917, and Edition Tesla (1997), Bd. 6, ISBN 3-89539-245-6 der Mensch als machine, S. 65.

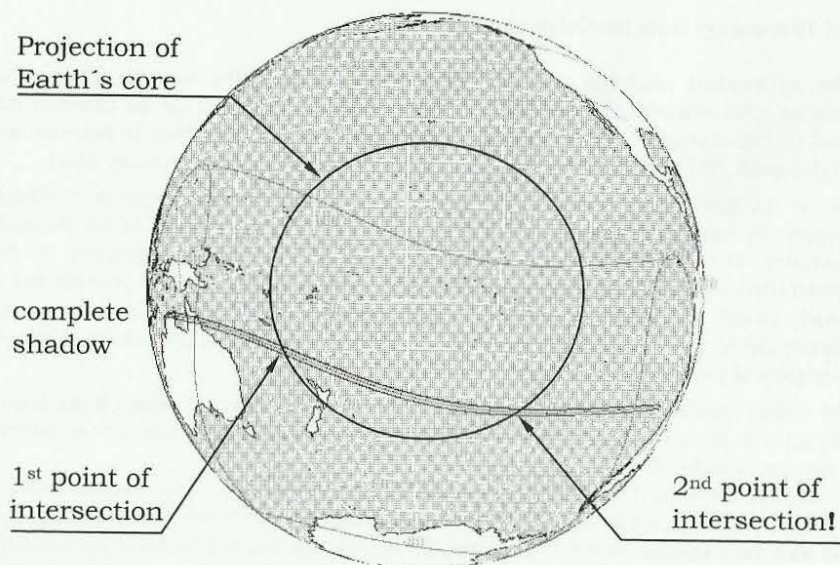


Fig. 20.10 A: Eclipse of the sun of 13.11.2012 (decl.: 18.1°)

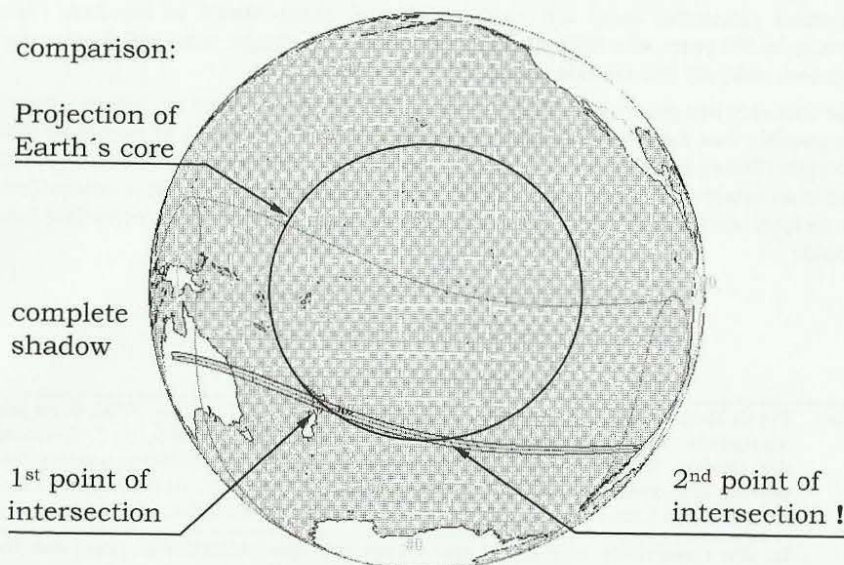


Fig. 20.10 B: Eclipse of the sun of 11.11.3799 (decl.: -17.3°).^{<i>}

^{<i>}: The eclipse of the sun of 7.7.3797 is harmless compared to that of 11.11.3799. Have they been mixed up or is a calculation error present?

20.10 Interaction of the neutrinos with earth's core

A strong neutrino field still doesn't make a catastrophe. Only in connection with one of the regularly happening eclipses of the sun should one be expected under certain circumstances. Only, which eclipses of the sun can get dangerous, we have to ask us, and why warns e.g. Nostradamus only for very particular dates?

The check of the respective eclipses of the sun results in a critical constellation every time for the cases, where the line of the complete shadow and the circle of the projection of earth's core intersect under a very flat angle and both points of intersection lie very close together. In the extreme case finally the lines only are touching and the points of intersection fuse to a line of intersection.

A corresponding constellation the next time is expected at 13.11.2012. For 7.7.3797, at similar conditions Nostradamus foretells the end of the world; but why?

From the interaction of the neutrinos arises as from every other interaction a force effect. If the points of intersection lie far apart, then earth's core is pulled once to the East and a short time later again to the West by the focussed neutrino radiation. On the average this will hardly influence earth's mantle and earth's crust because of the immense moment of inertia. The possible earthquakes will remain regionally restricted to the area around the two points of intersection.

But if a line of intersection forms, then no compensation of the force effects takes place anymore, then during the whole time one-sided is pulled at earth's core and that can have fatal results. It is the same as for a spinning top, which is given a blow from the side: it staggers several times, until the gyroscopic forces have stabilized it again.

But if earth's axis staggers, then the sun describes strange orbits in the sky, it goes backwards again, for a longer time doesn't set or it doesn't show for the same period of time for the people living on the other side of the globe.

Such an event already is described in the Bible^{<i>}. For the twenty hours, in which in Europe the sun didn't set for a day, again describe the chroniclers of the inhabitants in the South American Andes, how at their place the sun didn't show for twenty hours^{<ii>}.

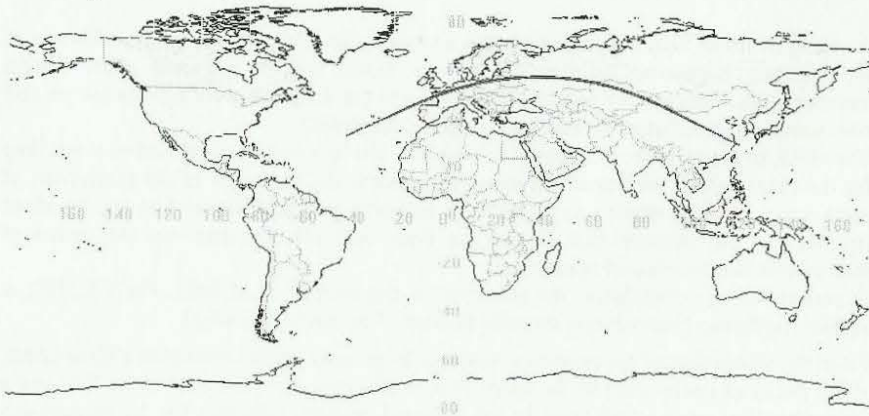
As a further example from the Greek mythology is mentioned the description of the poet Apollodoros, according to whom Hercules for the solution of his 10th task let the chariot of the sun bring to a standstill. "He turned his vehicle round and raced the way back, dragging along the Pleiaden and all stars, so that the sun set in the East"^{<iii>}. But if all stars take part in the same backwards motion, then this example proves the assumption of the staggering earth's axis.

^{<i>}: Josua 10.13-14 and the in chapter 11.8 cited passages.

^{<ii>}: nach Montesinos, zitiert in Zecharia Sitchin: The Lost Realms (Versunkene Reiche), Knaur Verlag München 1992, ISBN 3-426-04827-2, S. 203

^{<iii>}: Werner Raffetseder: Sonnenfinsternis, Hugendubel Verlag, München 1999, ISBN 3-89631-302-9, Seite 18.

A: Map of the world



B: Globus

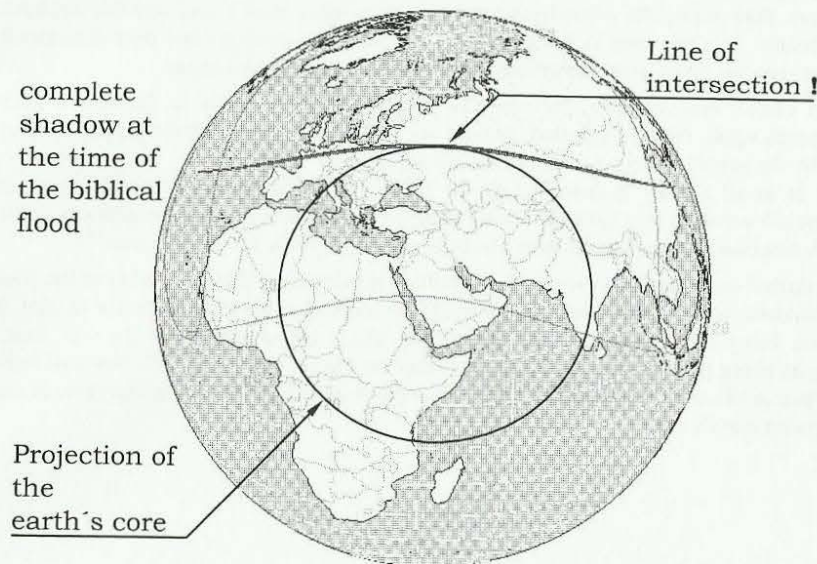


Fig. 20.11: Eclipse of the sun of 27.07.2281 B.C.
(angle of the sun = declination: 19.3°)
The trigger of the biblical Flood?

20.11 Changing of polarity and apocalypse

The pulling at earth's core, which shows as a wobbling of the magnetic axis and in damped form can lead to a tilting of the axis of rotation of the earth, still doesn't make an apocalypse, no end of the world. This only can be expected, if after a tilting of the axis of rotation of earth's core a change of polarity on the surface of the earth occurs. Doing so the new magnetic poles, like a compass needle in the field of the solar wind, again align in such a way that the North Pole will be lying "up" in the ecliptic. Because earth's surface will keep its direction of rotation, the sun will, after the process having stabilized, as usual again rise in the East and set in the West. But the inhabitants of the earth, which before still were having midsummer, find themselves again in the midst of midwinter and vice versa.

Truly apocalyptic processes can be expected during the phase of a change of polarity of the earth. Thereby occur unusual relative accelerations and violent earthquakes. The largest destructive potential however is present in the waters of the oceans, which are set in motion.

As is well-known the earth at the equator is measuring a radius which is 21 kilometres larger than at its poles. If only a part of the waters temporarily flows in the direction of the poles of the earth, then the biggest part of the habitable land in Middle and North Europe sinks in the floods; then indeed also the statement of Noah makes sense, who as the first thing saw the mountain of Ararat rise from the floods, after the water again flowed back into its usual ocean basins. The mountain of Ararat after all measures a height of 5137 meters above sealevel!

At comparing historical events with details from the Bible the Flood should have taken place in the year 2245 B.C.^{<i>}. According to the description of the position of the stars Dr. Wild calculates July 2281 B.C. as time for the Flood. The Arabic historical writer al-Makrizi again shifts the event into the year 3094 B.C.^{<ii>}. Who is right?

We must verify the eclipses of the sun in this time and determine the position of the points of intersection, then we perhaps find the correct answer. Possibly earth's axis has wobbled more than once, have occurred several catastrophes in different regions. At 27.7.2281 B.C. in any case there actually has occurred an extremely critical constellation, whereas the other two years are ruled out. Here no total eclipse of the sun took place (fig. 20.11).

According to the calendar of the Ugha Mongulala 6110 years before this Flood a still much more devastating one should have occurred. That therefore would have been 8391 B.C., while Scott-Elliott dates the catastrophe in the year 9564 B.C.^{<ii>}. According to Plato it would have been about 9500 B.C. For such long periods of time a check however isn't quite easy anymore, because the meantime changes of the earth sum up considerably.

<i>: Wild S. 231, 229 and 225.

<ii>: Wild S. 219, 218 and 210, among others cited from Scott-Elliott: Atlantis und das untergegangene Lemuria, Bauer Verlag Freiburg 1977.

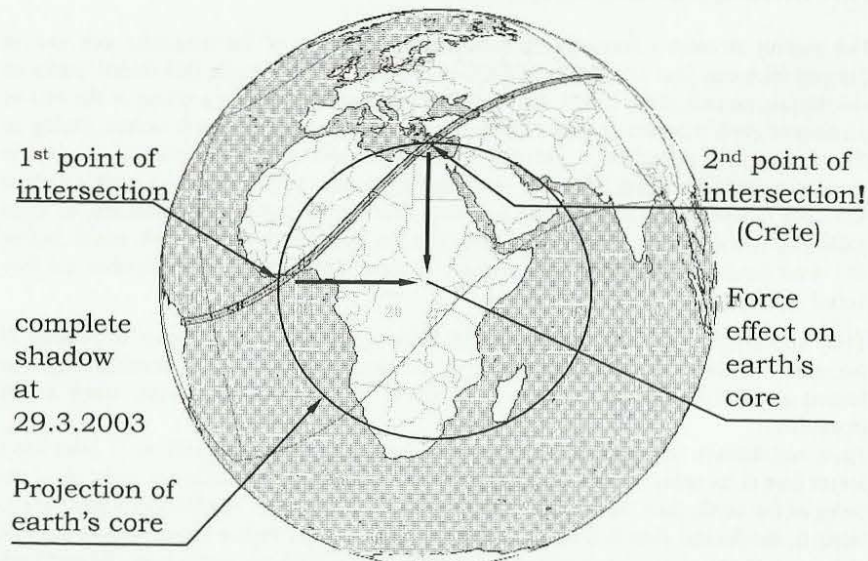


Fig. 20.12 A: Eclipse of the sun of 29.03.2006 (decl.: 3.2°)

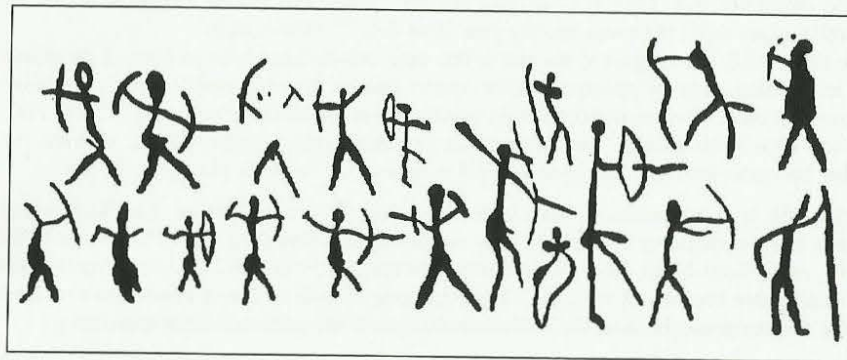


Fig. 20.12 B: Cave painting from Minateda (Spain). <i>

<i> Laviosa-Zambotti: Origini e Diffusione della Civiltà, Marzorati, Milano 1950, Dt. Ausgabe im Verlag für Kunst und Wissenschaft Baden-Baden, S. 123

Besides the constellation of sun and moon is crucial the occurring of a relevant neutrino radiation and the question if both is sufficient to tilt the earth and change its polarity. Some experts expect a change of polarity for the time coming, since it takes place with a certain regularity and measured in earth historical periods of time in addition fairly often! This circumstance the earth presumably owes the river valleys cut deep in the countryside and other topographic phenomena. One presumably can only survive such a catastrophe in an ark (Noah), in the air bubbles of large caves (the walls of which painted children and artists out of pure boredom, see fig. 20.12 B) or in the highland, preferably in the area of the equator (Central Africa, highland of Mexico, Andes, Himalaya).

20.12 Scalar wave gauges for the prediction of earthquakes

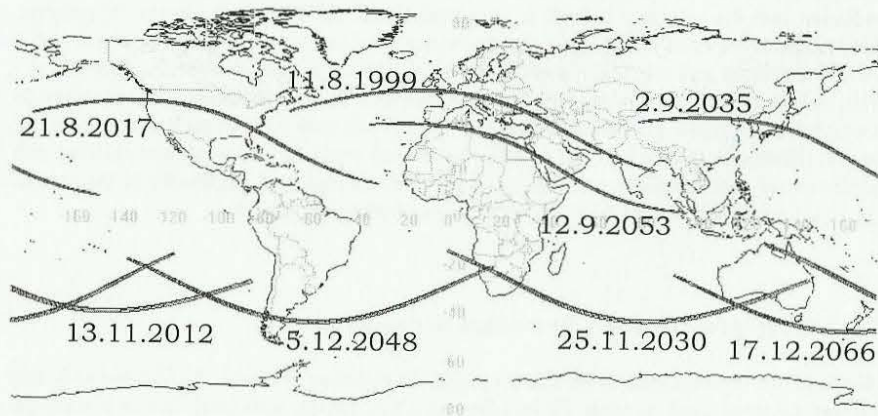
We urgently need gauges, to be able to judge the neutrino situation. At first we with that pursue the same goal, as with the building of a free energy converter, however with the difference that the converter should maximize the collected amount of energy, whereas the gauge should minimize the taken up energy, to not too much load the source and not to change the local radiation situation.

In addition the neutrino radiation should be registered distinguishable in its velocity of propagation, what means that the building of a gauge will be very much more costly than that of an energy collector. That's why it can be expected that an usable measurement instrument might be available only many years later and we that long only can base on our own power of observation.

We for instance can statistically analyse, how the earth after an eclipse of the sun reacts to the neutrino radiation focussed by the moon. At August 11 the second focal point was situated in the East, and from that an acceleration of the rotation of earth's core can be predicted. Corresponding observations actually have been made on the surface of the earth with the help of the Foucault pendulum.

The relation the next time can be checked at the eclipse of the sun at 29.3.2006. This time the inverse case is present. A first focussing takes place in the West, so that pendulum swings in the reversed direction would be expected, which indicate a slowing down of the rotation (fig. 20.12 A).

But if the rotation of the earth should change, then the balance sheet of angular momentum of moon, earth's mantle and earth's core isn't correct anymore. As a result a force of difference occurs, which lets the spinning top stagger. But if earth's core staggers inside of earth's mantle, then it powerfully stirs the liquid magma, and in this way releases its surplus energy again. As a result earth's mantle is heated up somewhat. We, on our wafer-thin earth's crust, then time delayed feel the effects of the staggering of the core as an earthquake. The period seems to lie at approximately 6.5 days, as far as this can be read from the reactions to the last two eclipses of the sun.



Tafel 20.13 A: Eclipses of the sun of 2 Saros cycles.



Fig. 20.13 B: The „Astronomicum Caesareum“ served around 1540 the determination of the positions of the moon nodes. <i>

<i> Werner Raffetseder: Sonnenfinsternis, Hugendubel Verlag, München 1999, ISBN 3-89631-302-9, Seite 134.

20.13 Calculation of future occurrences

From the analysis of past and present cosmic events with a strict scientific procedure can be predicted to a certain extent also future events. It thereby by no means concerns prediction, but exclusively the result of an analysis.

After the mentioned eclipse of the sun of 29.03.2006 there once more exists danger of earthquakes (approx. 4.4.2006) for the Island of Crete and Asia Minor.

From the eclipse of the sun of 13.11.2012 as well no good can be expected, even if the points of intersection, situated close together, lie far away from populated land in the south-west Pacific basin. The Maya calendar by the way ends to this time.

At 21.8.2017, 18 years or a Saros cycle after the eclipse of the sun at 11.8.1999 and correspondingly 120° further to the west, the corresponding complete shadow runs crossways through the USA. The thankless role of Turkey at the second point of intersection this time takes over South Carolina. One only can hope that the houses in Columbia are built more stable than in Izmit.

In fig. 20.13 A the two eclipses of the sun of 11.8.1999 and of 13.11.2012 with their respective Saros cycles until 2066 are shown. The as critically to value tendency of the course of the complete shadow is visible, which wants to nestle against the circle of the projection of earth's core to form a line of intersection.

I here break off, since anyone with my indications and an eclipse of the sun-CD can analyse at home all further events personally. I value that if possible many analyses are made and controversially discussed, because possible cosmic catastrophes concern us all somewhat.

What good is the building of gigantic fusion ovens, if the runners by no means have understood the process of the fusion themselves? Why build ring accelerators for billions of dollars, if elementary particles can be calculated at the desk? How is the expenditure for gravitational wave detectors justified, if the actual music plays at entirely other velocities of propagation? Why is half the annual production of the world of Gallium used for an indirect proof of neutrinos, if every self-wound Tesla coil is able to collect more neutrinos?

Our scientists, for whom I as a colleague quite often must be ashamed, have the primary task to draw attention to cosmic and other risks and to calculate them in advance. In any case it is extremely unpardonable to leave this core duty up to some fortune-tellers and self-appointed prophets.

One should more often remind them that the Chinese Kaiser Tschung-Khang let sentence his court astronomers Hi and Ho to death, after the two not having predicted an eclipse of the sun. It thus certainly didn't concern a missed spectacle or a missed tourism business, but presumably the need for safety of the Kaiser and his subordinates, for which the two astrophysicists in ancient China had to take responsibility.

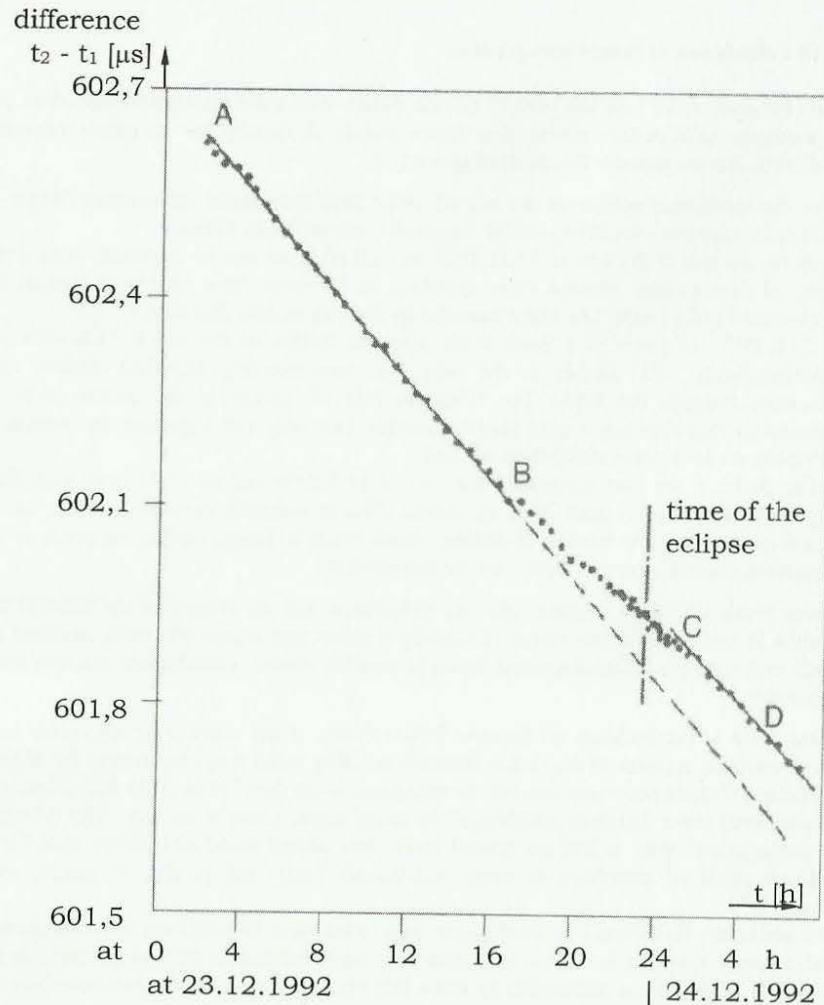


Fig. 20.14: The difference in going of two caesium atomic clocks positioned in different directions, but in the same laboratory in Harbin, China, during the partial eclipse of the sun of 24.12.1992. ^{<i>}

^{<i>}: Shu-wen Zhou: Abnormal Physical Phenomena Observed When the Sun, Moon, and Earth are Aligned, 21st Century Science & Technology, Fall 1999, Vol. 12, No. 3, pp. 54 - 61. Comments concerning Figure 9: Straight lines AB and CD show that the rate of change of the time difference between the two clocks is constant in non-eclipse periods, but becomes irregular around the time of the eclipse.

20.14 Epilogue to the energy technical seminar

Very slowly the word goes round that the energy source of the future has got a name: „*neutrinopower*“. Unfortunately fundamental physics, which is financed with public money, still does know almost nothing about the nature of the neutrino radiation. In addition hinder useless model concepts any progress in this direction and so the responsible fundamental research steps on the spot.

Considerably more extensive were already 100 years ago the insights of the experimental physicist Nikola Tesla, the discoverer of the neutrino radiation and father of the free energy. The space energy however is showing most clearly in nature, which only uses this advantageous form of energy. In particular during eclipses of the sun and other cosmic experiments it openly comes to light and can be detected by us for a short time.

The physicist Prof. Shu-wen Zhou of the University of Huazhong in Wuhan, China, systematically has investigated the effects, if sun, moon and earth are aligned ^{<i>}. Doing so he has proven inexplicable physical anomalies in experiments. Stimulated by the discoveries of Maurice Allais with the Foucault pendulum he built an arrangement specially for proving horizontal forces of acceleration, and actually he with that could measure force effects during the total eclipse of the sun of 24.10.1995. He even speaks of an *oscillating force*!

Further he could determine changes in the spectral wave length of various elements, which under normal conditions go as constant and even as characteristic for the respective element. The relative change of size of the wave length during the ring-like eclipse of the sun over China of 23.9.1987 resulted in the 100-fold value compared to the difference in the spectrum analysis between surface of the earth and surface of the sun! This comparison reveals an immense discrepancy between theory and practice and puts us for a solid problem.

For that six different models of spectrometers were installed in several laboratories of different polytechnics and a photograph was taken of the emission spectra of H, D, Ca, CN, Ni, Ti, etc.. Also other reasons than that of an eclipse of the sun could be excluded unambiguously. In the results of these, at artificial light carried out conventional measurements, in any case abysses yawn. The from spectrum analyses won "insights" about the composition of strange celestial bodies now for sure can be done away with without knowledge about the respective prevailing neutrino radiation.

Spectacular also is the proof of *differences in going of atomic clocks* of various constructions. During the partial eclipse of the sun of 24.12.1992 seven caesium clocks in four cities of China and in three planes were used. The analysis of the differences in going resulted in, as is shown exemplary in fig. 20.14, changes of the gradient during the eclipse. The results for the atomic clocks in the planes and for two further time measurements turned out with similar clarity ^{<i>}.

^{<i>}: Shu-wen Zhou: Abnormal Physical Phenomena Observed When the Sun, Moon, and Earth are Aligned, 21st Century Science & Technology, Fall 1999, Vol. 12, No. 3, pp. 54 - 61.

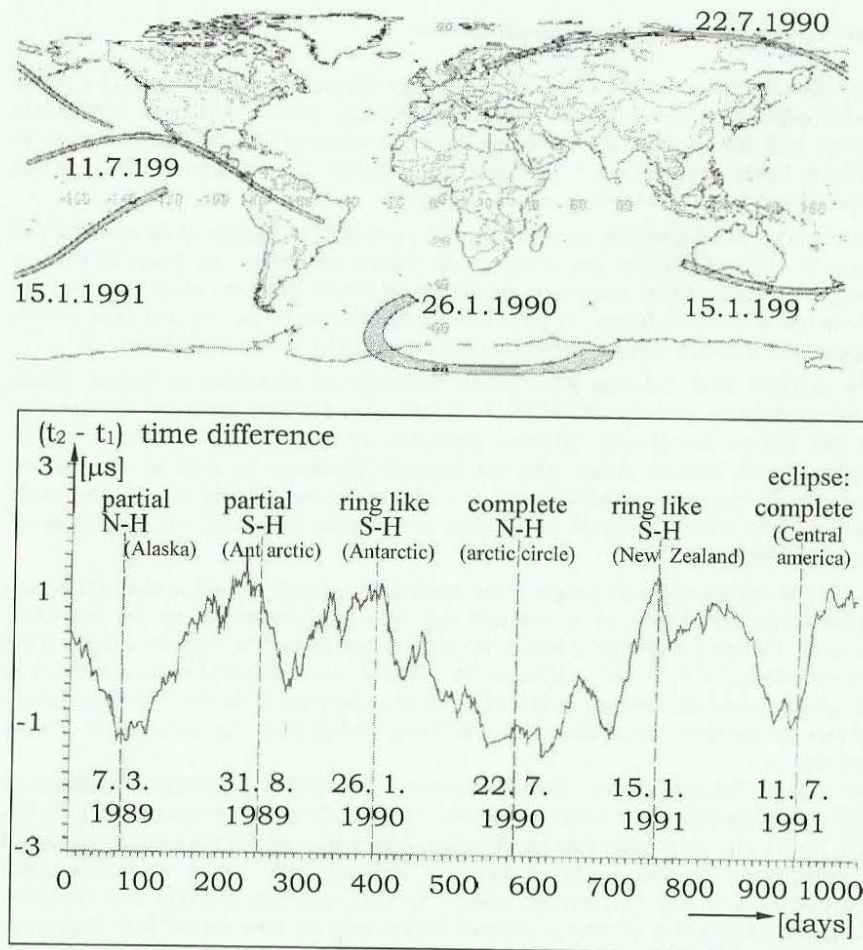


Fig. 20.15: Long-term measurement between 1989 and 1991 of the difference in going of two atomic clocks at the U.S. Naval Astronomical Observatory. <i>

The in the 1000 days occurred eclipses of the sun have been entered later. In addition is recorded, if the northern hemisphere (N-H) or the southern hemisphere (S-H) of the earth was involved.

<i>: Shu-wen Zhou: Abnormal Physical Phenomena Observed When the Sun, Moon, and Earth are Aligned, 21st Century Science & Technology, Fall 1999, Vol. 12, No. 3, pp. 54 - 61. Figure 8.

A connection to the neutrino radiation Prof. Zhon doesn't draw, but it almost is obvious.

From the U.S. Naval Astronomical Observatory (LC/7970) long-term measurements over 1000 days between 1989 and 1991 are present (fig. 20.15). The difference in going between the two atomic clocks positioned at different places shows a permanent up and down. The reason goes as completely unknown.

But if the eclipses, which took place in this time, are entered then one immediately sees the assignment to a maximum or a minimum value. If an eclipse of the sun namely concerned the southern hemisphere of the earth, then the difference in going each time reached a maximum, but if the shadow of the moon run over the northern hemisphere, then each time a minimum occurred. Chance here probably is out of the question!

Let us record: The effect of an eclipse of the sun, to which for instance a Foucault pendulum reacts, can equally be traced back to the interaction of the neutrinos as the free energy. That's why the here presented book carries the title "Free energy and the interaction of the neutrinos". It has appeared in the series concerning the "Electromagnetic environmental compatibility", and also for that there are good reasons. Our energy technology must become more ecologically compatible and we come the goal closer, if we emulate nature, understand and copy it.

That it further concerns electromagnetism, likewise is explained from the interaction of the neutrinos, which concerns the oscillating and resonant case of the electromagnetic interaction. In this respect the reference to the series of books therefore would be given.

It only indirectly has to do with "electrosmog", or what otherwise is understood under environmental compatibility in general. It however could be shown that also the earth radiation is a form of neutrino radiation, and that it poses a biological effectiveness, after it turned out that it serves nature as an energy source. With that the conflict with space energy devices already is predetermined if the same scalar wave radiation should be used. Then one system takes away the other system the energy basis and the existence basis. This environmental compatibility problem can be solved, if care is taken that both don't get in each others way with regard to the frequency and the wave length. We for that need a deep understanding concerning the topic of the space quanta and the neutrinos, their physical properties and the corresponding device technology. The book should make a contribution to that.

The other side of the medal is the information technical aspect of the scalar wave radiation and the environmental compatibility problem connected with that. The third and last part of the series of books is dedicated to this theme.

Part 2: Edition belonging to the energy technical seminar:
"Electromagnetic Environmental Compatibility"

Prof. Dr.-Ing. Konstantin Meyl

Scalar waves

Abstract:

1. Auflage 1998, 4. Auflage and 1st English Edition 2003

With regard to the environmental compatibility a decentral electrical energy technology should be required, which manages without overhead power lines, without combustion and without radioactive waste. The liberalization of the energy markets won't on any account solve our energy problem, but only accelerate the way into the dead end. New, ecologically compatible concepts are collected and discussed in the book.

A useful energy source could be represented by space quanta, which hit upon the Earth from the sun or from space. They however only are revealed to the measurement technician, if they interact. It will be shown that the particles oscillate and an interaction or collection with the goal of the energy technical use only is possible in the case of resonance.

Since these space quanta as oscillating particles have almost no charge and mass averaged over time, they have the ability of penetration proven for neutrinos.

In the case of the particle radiation discovered 100 years ago by Tesla, it obviously concerns neutrinos. We proceed from the assumption that in the future decentral neutrino converters will solve the current energy problem. Numerous concepts from nature and engineering, like on the one hand lightning or photosynthesis and on the other hand the railgun or the Tesla converter are instanced and discussed.

Free energy and the interaction of the neutrino radiation

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If you want to correspond with me or if you want to get one of my books from the bibliography, then please consult my Transfer Centre in the Technology Parc of Villingen (Black Forest, D).

Address: 1st Transfer Centre for Scalar wave Technology
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D-78048 Villingen-Schwenningen/Germany

Fax.: +49-7721/51870

email: meyl@k-meyl.de or: prof@meyl.eu

Internet: www.meyl.eu > shop: get more information to the books

The list of deliverable books (for ordering books over the above given address, Fax, Mail or postcard suffices):

- * Wirbelströme, Diss. University Stuttgart 1984, ISBN 3-9802 542-0-8, 14 €
- * Potentialwirbel Band 1, 1990, ISBN 3-9802 542-1-6 (German), 14 €
- * Potentialwirbel Band 2, 1992, ISBN 3-9802 542-2-4 14 €
- * Elektromagnetische Umweltverträglichkeit, Teil 1, 2 and 3 (German), ISBN 3-9802 542-8-3, 3-9802 542-9-1 and 3-9802 542-7-5. Each 16 €
- * Scalar wave technology, 2003, documentation and manual to the demonstration-kit and to the experimental-kit (translated and copied).
- * Sendetechnik der Götter, historischer Sciencefictionroman, (in German) 1.Aufl. 2004, ISBN 3-9802 542-5-9, 14 €
- * Neutrinopower, Johannes von Buttlar im Gespräch mit Prof. Dr. Konstantin Meyl, (Discussion in German) Argo-Verlag 2000, 23 €

Fig. 30.14: Contacting address and list of deliverable books

Table of formula symbols

Electric field			Magnetic field		
E	V/m	Electric field strength	H	A/m	Magnetic field strength
D	As/m ²	Electric displacement	B	Vs/m ²	Magnetic induction
U	V	Tension voltage	I	A	Current
ϵ	As/Vm	Dielectricity: $\epsilon = \epsilon_r \cdot \epsilon_0$	μ	Vs/Am	Permeability: $\mu = \mu_r \cdot \mu_0$
Q	As	Charge	ϕ	Vs	Magnetic flux
e	As	Elementary charge	m	kg	Mass
τ_2	s	Relaxation time constant of the potential vortices	τ_1	s	Relaxation time constant of the eddy currents: $\tau_1 = \epsilon/\sigma$

other symbols:

A	m ²	Area	Q	Nm = J	Heat energy
a	m	Distance	r, R	m	Radius, radius of the earth
b	m	Width	r_e	m	Radius of the electron
c	m/s	Speed of light	s	Nms	Spin
c₀	m/s	Speed of light in vacuum	t	s	Time, time to orbit
C_e	As/V	Capacity of the electron	T	K	Temperature
C_p	J/K	Heat capacity	U	Nm	Potential energy
d	m	Thickness	U_e	V	Tension voltage of the electron
E, W	Nm	Energy	v	m/s	Velocity
f	1/s	Frequency	V	m ³	Volume
F	N	Force	W	Nm	Energy
G	m ³ /kg·s ²	Gravitational constant	w	N/m ²	Energy density
g	m/s ²	Gravitational acceleration of the earth	W_e	Nm	Energy of the electron
h	m	Height	z_e	-	Number of the involved elementary vortices
h	Nms	Planck's quantum of action	λ	m	Wave length
h	Nms	Quantum of angular momentum: $\hbar = h/2\pi$	ω	s ⁻¹	Angular frequency, angular velocity
j	A/m ²	Current density	σ	A/Vm	Specific electric conductivity
J	kg·m ²	Moment of inertia	ρ	kg/m ³	Density $\rho = m/V$
J·ω²	kg·m ² /s	Angular momentum	ρ_{el}	As/m ³	Electric space charge density
k	Nm/K	Boltzmann constant	$\psi(r, t)$		Complex wave function
l	m	Length	$\phi(r)$		Function of space coordinates
m	kg	Mass	Φ		Golden Proportion
M	kg	Mass of the earth			
n, v	1, 2, 3, ..	Running parameters			
N	-	Constant			
O	m ²	Surface area			
p_m	Am ²	Magnetic moment			

Definitions:

Speed of light	$c = 1/\sqrt{\epsilon \cdot \mu}$	m/s
Speed of light in a vacuum	$c_0 = 1/\sqrt{\epsilon_0 \cdot \mu_0}$	m/s
Moment of inertia (orbit)	$J = m \cdot r^2$	kg·m ²
Mom. of i. (homogeneous sphere)	$J = (2/5)m \cdot r^2$	kg·m ²
Angular velocity	$\omega = v/r = 2\pi/t$	1/s
Surface area of a sphere	$O = 4 \cdot \pi \cdot r^2$	m ²
Volume of a sphere	$V = (4/3) \cdot \pi \cdot r^3$	m ³

Concerning vector analysis:

Bold print = field pointer (vector);

further information in fig. 5.0 in part 1

Prof. Dr.-Ing. Konstantin Meyl:

Scalar wave technology

for the transmission of electric scalar waves

Abstract:

1. Auflage 2000, 2. Auflage and 1st English edition 2003

This book is recommended to people, who search the entry into the world of the by the author discovered potential vortices and their propagation as a scalar wave by experimental means. It starts with the instructions to six extraordinary experiments. Doing so an electric radiation is proven, which transmits energy, and that even faster than the light. Also more energy can arrive at the receiver then is put into the transmitter. Who entertains a doubt, will be able to understand the experiments with this book in his hand, to afterwards test the experiments with the gauges, which he is familiar with.

The 1st edition in English at first only includes the instructions for the experiments. In a subsequent edition it will be complemented with a collection of test protocols and progress reports. These are organized into three groups: one group is striving to explain the behaviour of the transmission line conventionally, a legitimate concern, which in a number of points also is able to convince. A second group only is interested in those phenomena of the experiment, which can't be explained conventionally and which prove the existence of scalar waves, whereas the third research group continually strives for new spectacular experiments and practical applications.

Documentation

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Bibliography

A. Primary literature (Publications concerning the theory of objectivity):

- [1] K. Meyl: Potentialwirbel, Band 1, INDEL Verlagsabt. Villingen 1990, ISBN 3-9802542-1-6
- [2] K. Meyl: Potentialwirbel, Band 2, INDEL Verlagsabt. Villingen 1992, ISBN 3-9802542-2-4
- [3] K. Meyl: Wirbelströme, INDEL Verlagsabt. Villingen 1984, ISBN 3-9802542-0-8 / Dreidimensionale nichtlineare Berechnung von Wirbelstromkupplungen, Diss. Uni. Stuttgart 1984
- [4] K. Meyl: Einheitliche Theorie bei feldstärkeabhängiger Lichtgeschwindigkeit, Forschungsbericht der Fachhochschule Furtwangen 1992, 1. Aufl. Seite 41-43
- [5] K. Meyl: Wirbel des elektrischen Feldes, eine neue Störquelle? EMC Journal 1/95, 6. J. S. 56
- [6] K. Meyl: Gefährdungspotential und Umweltverträglichkeit elektromagnetischer Felder am Beispiel der Funktelefone, Waerland 2/96 (1996), S. 21-23.
- [7] K. Meyl: Wirbel des elektrischen Feldes, ein Beitrag zum Thema Überlichtgeschwindigkeit; Wetter-Boden-Mensch 1/1997, ISSN 0940-5984, Seite: 79-89.
- [8] K. Meyl: Physikalische Grundlagen einer Frequenztherapie, W.-B.-M. 6/1997, Seite: 8-15.
- [9] K. Meyl: Die Wechselwirkung der Neutrinos, über Maßnahmen, die Halbwertszeit beim radioaktiven Zerfall herabzusetzen; intern. Tagung „Neue Energietechnologien aus USA“, Zürich am 6.12.97, abgedruckt im NET-Journal (Neue Energietechniken), ISSN 1420-9292, Heft 1/2-1998, S. 14-20
- [10] K. Meyl: Objektivitätstheorie, Ein Weg aus der quantenphysikalischen Sackgasse, 1. Beitrag: Der Äther und die Einsteinsche Fehlinterpretation, W.-B.-M. 3/1998, ISSN 0940-5984, Seite 39-44
- [11] K. Meyl: Objektivitätstheorie, Ein Weg aus der quantenphysikalischen Sackgasse, 2. Beitrag: Die Vereinigungstheorie, Wetter-Boden-Mensch 4/1998, ISSN 0940-5984, Seite: 31-38
- [12] K. Meyl: Longitudinale elektrische Wellen und Wirbel, Vortrag der „Internationalen Gesellschaft für interdisziplinäre Wissenschaften“ in Frankfurt am 21.3.1998, veröffentlicht im Vortragsband des „Bundesverbands gegen Elektromog e.V.“ ISBN 3-00-003124-3, Hohenstein, S.79-91
- [13] K. Meyl: Biologische Wirksamkeit elektromagnetischer Wellen, Fluch (Elektromog) oder Segen (Frequenztherapie)?, CO'MED, Fachmagazin für Complementär-Medizin Nr.10, Dez.1998, S. 51-55
- [14] K. Meyl: Elektromog, die physikalischen Grundlagen, Magazin 2000 plus Nr.134, 12/1998, S. 32-37
- [15] K. Meyl: Freie Energie und die Wechselwirkung der Neutrinos, W.-B.-M. 3+4/1999, Seite: 21-29
- [16] K. Meyl: Skalarwellen und ihre biologische Wirksamkeit, Vortragsband der Deutschen Gesellschaft für Energetische und Informationsmedizin, Universität Stuttgart am 17.07.1999, S. 47-52
- [17] K. Meyl: Zur Brennglaswirkung des Mondes bei einer Sonnenfinsternis, NET-Journal (Neue Energietechniken), ISSN 1420-9292, Heft 7/8-1999, S. 13-17, sowie INET-Kongress-Vortrag dazu: Freie Energie im nächsten Jahrtausend, am 9.10.1999, Holiday Inn Heidelberg (Walldorf)
- [18] K. Meyl: Raum-Energie-Technologie, Wechselwirkung der Neutrinos und energietechnische Nutzung der Teslastrahlung, Teil 1, Magazin 2000 plus Nr.144, Dezember 1999, S. 62-67
- [19] K. Meyl: Raum-Energie-Technologie, Teil 2, Magazin 2000 plus Nr.145, Jan./Feb. 2000, S. 60-65
- [20] K. Meyl: Teslastrahlung, W.-B.-M. 4/2000, ISSN 0940-5984, S. 31-43
- [21] K. Meyl: Skalarwellen, Hagia Chora 5/2000, ISSN 0940-5984, S. 31-43
- [22] K. Meyl: Teslastrahlung – die drahtlose Übertragung von Skalarwellen, Kongressband Bregenz vom 15./16.4.2000, S. 181-196, Jupiter-Verlag, ISBN 3-906571-18-1
- [23] K. Meyl: Skalarwellentechnik, INDEL Verlagsabt. Villingen-S. 2000, 1. Aufl., ISBN 3-9802542-6-7
- [24] K. Meyl: Nichtoptische Sonnenfinsternisphänomene Teil 1, Magazin 2000 plus/148, 6/2000, S. 10-13
- [25] K. Meyl: Nichtoptische Sonnenfinsternisphänomene Teil 2, Magazin 2000 plus/150, 8/2000, S. 26-29
- [26] K. Meyl: Nichtoptische Sonnenfinsternisphänomene Teil 3, Magazin 2000 plus/151, 10/2000, S.12-17
- [27] K. Meyl: Longitudinalwellen-Experiment nach Nikola Tesla, Vortragsband der Deutschen Ges. für Energetische und Informationsmedizin, Universität Stuttgart am 6.+7.10.2000, S. 4.1-4.9
- [28] K. Meyl: Skalarwellen und ihre Bedeutung für die Medizin, Kolloquium vom 6.-8.10.2000 Bad Nauheim der BIT-Ärztegesellschaft, Vortragsband, Seite 87-96.
- [29] Johannes von Buttlar im Gespräch mit Prof. Dr. Konstantin Meyl: Neutrinopower, 1. Auflage 2000, Argo-Verlag Marktoberdorf, ISBN 3-9806584-8-1
- [30] K. Meyl: Skalarwellen-Übertragung, NET-Journal, ISSN 1420-9292, Heft 12-2000, S. 31-34
- [31] K. Meyl: Longitudinalwellen-Experiment, DVR-Info im NET-Journal, Heft 12-2000, S. 21-24
- [32] K. Meyl: Erdbeben und Vulkanausbrüche, GA-Magazin, Heft 6, 2000, S. 11-14
- [33] K. Meyl: Atomuhren, die falsch gehen, GA-Magazin, Heft 8, 2001, S. 10-13
- [34] K. Meyl: Umpolungsproblematik und Sintflut, GA-Magazin, Heft 10, 2001, S. 10-14

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- [35] K. Meyl: HF-technische Hinweise zum Skalarwellen-Übertragungs-Set, DVR-Mitgliederjournal Nr. 45, 1/2001, S. 20-22 und NET-Journal, ISSN 1420-9292, Heft 3/4-2001, S. 44-45
- [36] K. Meyl: Stellungnahme zum Artikel im Spiegel, DVR-Mitgliederjournal Nr. 46, 2/2001, S. 43-44
- [37] K. Meyl: Stellungnahme zu dem Beitrag „Skalarwellenübertragung“, W.-B.-M. 2/2001, Seite: 77-79
- [38] K. Meyl: Scalar Waves: Theory and Experiments, Journal of Scientific Exploration, Vol. 15, No.2, June 2001, ISSN 0892-3310, pp.199-205.
- [39] K. Meyl: Skalarwellenstrahlung. Welche Bedeutung haben Skalarwellen für die Medizin?, CO'MED, Fachmagazin für Komplementär-Medizin Nr.6, Juni/2001, S. 55-60.
- [40] K. Meyl: Advanced Concepts for Wireless Energy Transfer, High efficient Power Engineering with Scalar Waves, International Congress-Publications, Weinfelden, 23./24.6. 01, Jupiter-Verl., pp. 41-49
- [41] K. Meyl: Fortschrittliche Konzepte zur drahtlosen Energieübertragung, Hocheffiziente Energietechnologie mittels Skalarwellen, Kongress „Neue Wasserstofftechnologien und Raumtriebe“ 23.-24.Juni 2001 CH-Weinfelden, Kongressband S. 25-40, Jupiter-Verlag, ISBN 3-906571-20-3
- [42] K. Meyl: Schwingungsmedizin, Physikalisch-technische Aspekte komplementärmedizinischer Diagnose- und Therapieverfahren, G.E.I.M.-Vortrag am 6.10.2001 Universität Kaiserslautern, GZM-Praxis und Wissenschaft, ISSN 1430-4554, 7.Jahrg. 1/2002, S. 50-55
- [43] K. Meyl: Skalarwellen Teil 1: Grundlage einer erweiterten Feldtheorie und praktische Konsequenzen der Maxwell-Näherung, NET-Journal, ISSN 1420-9292, Heft Juli/August 2002, S. 31-47
- [44] K. Meyl: Skalarwellen Teil 2: Weltgleichung und Wellengleichung als Konsequenz der erweiterten Feldtheorie, NET-Journal, ISSN 1420-9292, Heft September/Okttober 2002, S. 44-47
- [45] K. Meyl: Wirbelstrukturen als Element der Informationsübertragung in biologischen Systemen, Kolloquium vom 3.-5.10.2002 Bad Nauheim der BIT-Ärztegesellschaft, Vortragsband, Seite 77-96.
- [46] K. Meyl: Skalarwellen, Grundlage einer erweiterten Feldtheorie, Vortrag am VII.Kongress des IAG vom 18.-20.10.2002 in Mainz-Finthen, Kongressband ISBN 3-9804228-3-6 1.Aufl.2002, S. 118-135.
- [47] K. Meyl: Nutzungsmöglichkeiten der Skalarwellentechnik, Neutrino-Power als Chance für das neue Jahrtausend, Magazin 2000 plus / Nr.177, November/Dezember 2002, S. 60-63.
- [48] K. Meyl: Schwingungsmedizin, Bioresonanz durch Skalarwellentechnik, Magazin 2000 plus / Nr.178, Medizin Spezial 13, 2002, S. 52-57
- [49] K. Meyl: Die Wellengleichung, Grundlage der Skalarwellen-Physik, Magazin 2000 plus / Nr.179, Januar/Februar 2003, S. 6-12
- [50] K. Meyl: Elektrische bzw. magnetische Skalarwellen im Kreuzfeuer der Kritik. Prof. Dr.-Ing. Konstantin Meyl nimmt Stellung zu kritischen Fragen, CO'MED, Nr.1, Januar/2003, S. 52-54.
- [51] K. Meyl: Freie Energie und Neutrinopower, Vortrag am 26.10.2002 in Bensheim auf dem Kongress: (Vom Band abgetippt von I.Schneider) Neue universale Energielösungen, Sammelband der Kongressbeiträge, Jupiter Verlag 2003, ISBN 3-906571-22-X, S.57-79
- [52] K. Meyl (D.Neubronner): Die Rundfunkgötter, Teslawellen im Altertum, Matrix 3000 Band 16, 7/8-2003, ISSN 14394154, S.40-43
- [53] K. Meyl: Erdwachstum durch Neutrinopower, Magazin 2000 plus Nr.188, Extra 3, 9/10-2003, S. 6-13
- [54] K. Meyl: Faraday vs. Maxwell, Nikola Tesla Energy Science Conference, Washington DC 8.11.03, IRI
- [55] K. Meyl: Physikalische Grundlagen für die Informationsverarbeitung im Menschen, Kongressband zu den Festspielgesprächen 2002, (Hg. Simma Kletschka) Facultas Verlage Wien 2003, Band 27, Wiener Internationale Akademie für Ganzheitsmedizin, ISBN 3-85076-648-9, Seite 38-59

by Prof. Dr.-Ing. Konstantin Meyl:

Sendetechnik der Götter

Konstantin the Great is inaugurated in ancient send receive engineering by his teacher in the Roman emperor palace 304 A.D.

Abstract:

1. Auflage 2004 (in German)

- Has god Apollo in Delphi broadcasted at 5.4 MHz?
- Were the Greek temples telegraphy transmitters?
- Were the temple priests amateur radio operators?
- Was Homer radio reporter by order of the gods?
- Were the oracles receiving stations?
- Have oracle interpreters deciphered the transmission code?
- Which bridges did the Pontifex Maximus build?

All are questions, which are dealt with and explained in detail in 30 lessons. In the year 304 A.D. we witness, how the later Roman emperor Konstantin the Great is inaugurated in the secret broadcasting technique of the gods by his teacher. It is an exciting time of upheaval, because the old telegraphy is almost dead. The intestines of animals to sacrifice, from the convulsions of which the radio signals are read off, are scarce goods.

Instead radiotelephony should be introduced, which had been tested successfully with the Pantheon in Rome by emperor Hadrian.

But new dispute is initiated: should broadcasting be introduced or rather cellular phone? But those, who tamper around without licence, are chased and fought as always.

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B. Secondary literature (Publications about the theory of objectivity):

- [1] P. Schellenberg: Buchbesprechung zu K. Meyl: Potentialwirbel, Bd. 1, Efdon News 6 (1992), S. 11
- [2] Dr. R. Wohlleben: Buchbespr. zu K. Meyl: Potentialwirbel, Band 2, Frequenz 50 (1996) 1-2, S. 10
- [3] Steinbeis-Stiftung für Wirtschaftsförderung: Technologiepreis für STZ-Leiter, Transfer Zeitung 3/94 (1994), S.6
- [4] A. Waser (Herausg.): Die rätselhafte Natur - The Puzzling Nature, AW Verlag, Luzern (1996), ISBN 3-9521059-0-2
- [6] K. Lorek: Buchvorstellung in "Implosion", Biotechnische Nachrichten Nr. 116 (8/1996), S. 64
- [7] Dr. H. Lumpe: Potentialwirbel, neues Weltbild; Raum & Zeit Nr. 86, März/April 1997, S. 102-103
- [8] Inge Schneider: Buchbesprechung zu K. Meyl: Elektromagnetische Umweltverträglichkeit, Teil 1, NET-Journal, ISSN 1420-9292, Jg. Nr.2, Heft 3, März 1997, Seite 23
- [9] W. Martin: Buchbesprechung zu Teil 1, Wetter-Boden-Mensch 2/1997, ISSN 0940-5984, S. 62-63.
- [10] RTL: Prof.Dr.-Ing.Meyl zu Gast bei der RTL-Talkshow von Ilona Christen am 30.5.97, abgedruckt im NET-Journal, ISSN 1420-9292, Jg. Nr.2, Heft 6/7 1997, Seite 30-31
- [11] Inge Schneider: zu „Prof. Dr.-Ing. Konstantin Meyls Buch Elektromagnetische Umweltverträglichkeit“, NET-Journal, ISSN 1420-9292, Jg. Nr.2, Heft 6/7 1997, Seite 32-33
- [12] W. Heidrich: Geht die Expertentagung 1997 in die Geschichte ein? W.-B.-M. 6/1997, S. 3-4
- [13] J. Heinzerling: Die Technik des dritten Jahrtausends, Magazin 2000 plus Nr.125, März 1998, S. 57/58
- [14] Inge Schneider: Buchbesprechung zu K. Meyl: Elektromagnetische Umweltverträglichkeit, Teil 2, NET-Journal, ISSN 1420-9292, Jg. Nr.4, Heft 3, März 1999, Seite 35
- [15] W. Martin: Buchbesprechung zu Teil 2, Wetter-Boden-Mensch 2/1999, ISSN 0940-5984, S. 46+59.
- [16] P.Rösch: Glänzend, Prof. Meyl zu Elektromog, Leserbrief, Magazin 2000 plus Nr.136, 2/1999, S. 77
- [17] Portrait der Kongreß-Referenten, zu Prof. Meyl: Energie aus dem Weltraum, 5. internationaler Kongreß vom 26.-28.2.1999 in Düsseldorf, Magazin 2000 plus Nr.136, 2/1999, S. 2 + 16 mit:
- [18] P.Wiesner: Bericht zum 5. internationalen Kongress „Dialog mit dem Universum“, zum Beitrag Prof. Meyl: „fordert eine dezentrale elektr. Energietechnik“, Magazin 2000 plus Nr.136, 2/1999, S. 38-41
- [19] I. Schlotterbeck: Bücher, die wir empfehlen, Magazin 2000 plus Nr.142, Sept./Oktober 1999, S. 96
- [20] H.-J. Ehlers: Freie Energie, Meyls Neutrino-These; Raum & Zeit Nr. 101, Sept./Oktober 1999, S. 94
- [21] I. Schneider: Bericht zum Kongress vom 9.+10.10.99, Heidelberg, zu K. Meyl: Freie Energie im nächsten Jahrtausend, NET-Journal, ISSN 1420-9292, Jg. Nr.4, Heft 10/11, Okt./Nov. 1999, S. 8 ff.
- [22] Sabine Krümmel: Weltpremiere, Magazin 2000 plus Nr.145, 1+2/2000, S. 59 und im Schwarzwälder Bote vom 19.11.99: TP-Forum eröffnet mit Weltpremiere, Prof. Meyl berichtet über Teslawellen.
- [23] Dietmar Schindler: Neutrinos – Energie aus dem Kosmos, Schwarzwälder Bote Nr. 275 vom 27.11.99
- [24] Schneider: Neutrino-Power – Energie aus dem Kosmos, Bericht zu Vortrag und Demo von Prof. Dr. K. Meyl am 25.11.1999 in Villingen, NET-Journal, ISSN 1420-9292, Jg. Nr.4, Heft 12/1999, Seite 4-6
- [25] Schneider: Durchbruch in der Freien-Energie-Forschung; Interview mit Prof. Dr.-Ing. Konstantin Meyl, NET-Journal, ISSN 1420-9292, Jg. Nr.4, Heft 12, Dezember 1999, Seite 7-9.
- [26] Dulling: Professor Meyl und die Freie Energie, TZ-Journal 1999/2000, Seite 5.
- [27] Ulrich Arndt: Das Phänomen der Wirbel, Buchbesprechung zu Elektromagnetische Umweltverträglichkeit Teil 1 und Teil 2, Esotera 1/2000, Verlag Hermann Bauer, S. 50,51
- [28] Rainer Borgmann: Energie aus dem Kosmos, Magazin 2000 plus Nr.145, Januar/Febr. 2000, S. 58-59
- [29] Sabine Krümmel: Wissenschaftler sprechen von Sensation, Im Villingen Technologie-Forum führte Konstantin Meyl seine Skalarwellen vor, Schwarzwälder Bote vom 7.2.2000
- [30] Dr.B.Tausendfreund: Über biologische und medizinische Auswirkungen von elektrischen Potentialwirbeln und elektromagnetischen Longitudinalwellen, , CO'MED, 2/2000, S. 92
- [31] Dr. H.Hantsche: Neues aus Physik und Technik, Info-Blatt der Feien Akademie, Berlin 3/2000, S.3
- [32] A.Milinkovic: Weiterer Nachweis der Skalarwellen, NET-Journal, Jg. Nr.5, Heft 3, März 2000, S. 26
- [33] Vorstellung des Referenten Prof. Dr.-Ing. Konstantin Meyl, Kongressband Bregenz vom 15./16.4.2000, S. 180, Jupiter-Verlag, ISBN 3-906571-18-1
- [34] Dr. Kunze: Leserbrief zu K.Meyl: Raum-Energie-Technologie, Magazin 2000 plus 147, 4-2000, S. 93
- [35] Schneider: Teslastrahlung, die drahtlose Übertragung von Skalarwellen von Prof. Dr.-Ing. Konstantin Meyl, NET-Journal, ISSN 1420-9292, Jg. Nr.5, Heft 4/5- 2000, Seite 14-15.
- [36] Dr. Reichwein, Peters: Zelluläre Elektromagnetische Systemsteuerung, Der Freie Arzt 5 (2000) im Wissenschafts-Forum (Anhang, S. IV - XXIII)
- [37] Ulrich Arndt: Die Energie aus dem Nichts, Esotera 7/2000, Verlag Hermann Bauer, S. 62-66
- [38] Besprechung zum Video „EMUV“ von Prof. Dr. Meyl, Esotera 7/2000, Verlag Hermann Bauer, S. 30
- [39] A.Manthey: Bericht zur Berliner Tagung für neue Energietechnologien (8.7.2000), zu Theoretische Ansätze (u.a. K. Meyl), NET-Journal, ISSN 1420-9292, Jg. Nr.5, Heft 7/8 2000, S. 14 ff.

- [40] Schneider: Über das Experimentier-Set zur Übertragung von Skalarwellen von Prof. Dr.-Ing. Konstantin Meyl, NET-Journal, ISSN 1420-9292, Jg. Nr.5, Heft 9, September 2000, Seite 4-7.
- [41] Buchbesprechung zu Prof. Dr.-Ing. Konstantin Meyl: Elektromagnetische Umweltverträglichkeit, Teil 1 und Teil 2, Schweizerische Zeitschrift für RGS, ISSN 1420-4894, Nr.233, Heft 4-2000, Seite 54-56
- [42] Adolf und Inge Schneider: Energie aus dem All, 11.Kap.: Drahtlose Übertragung von Skalarwellen durch Prof.Dr.-Ing.Konstantin Meyl, S.312-324, Jupiter Verlag 9/2000, 1.Aufl. ISBN 3-906571-17-3.
- [43] Dr.J.Lechner: Störfelddiagnostik, Medikamenten- und Materialtest Teil2, Kap.2.4.2 Berührungslose skalarwellengetragene Informationsübertragung, S.173-178, Verlag Wühr 2000, ISBN 3-927344-44-3
- [44] Dr. B. Köhler: Nachlese zum Jubiläumskolloquium der BIT-ÄG vom 6.-8.10.2000 in Bad Nauheim: Einen weiteren Höhepunkt stellte das Referat von Prof. K. Meyl dar,... CO'MED, 12/2000, S. 104
- [45] Schneider: Buchbesprechung zu „Neutrinopower“, NET-Journal, Jg. 5, Heft 12, Dezember 2000, S. 39
- [46] Fachhochschule Furtwangen: Vorlesungsangebot für das SS 2001, S.8, Prof. Dr. K. Meyl: EMUV.
- [47] Vill: Die elektrophysikalische Mauerwerksentfeuchtung, EV-Verl.2001, ISBN 3-934139-04-3, S.26-33
- [48] Kraft: Eroberung von physikalischem Neuland, Buchbesprechung zu „Neutrinopower“, und
- [49] Röttcher: Sind morphische Felder Neutrinos?, Zeit Geist, Heft 3, 2001, S. 29 und S. 9.
- [50] Dr.R.Kraßnigg: Skalare Wellen, Regulations Medizin 6, Heft 3, 2001, S. 89-96.
- [51] Dr.A.Rossaint: Physikalische Grundlagen und biologisch-medizinische Schlußfolgerungen für den berührungslosen Resonanztest Teil1, Zeitschrift Hier & Jetzt, 3/2001, S.22-27 +Teil2, 4/2001, S.22-25
- [52] GZM-Kongress Berlin, 13.5.2001, zu dem Vortragenden Prof.Dr.K.Meyl: Skalare-/Teslawellen zur zellulären Energie- und Info., GZM-Praxis und Wissenschaft, ISSN 1430-4554, 6.Jahrg. 1/2001, S.36
- [53] Dr.P.Reichert: Die Medizin der Zukunft – Schwingungen statt Pillen, Berlin Nachlese zum 6. Europäischen Kongress für Ganzheitliche Zahn-Medizin 10.-13.5.2001, GZM-Praxis und Wissenschaft, ISSN 1430-4554, 6.Jahrg. 1/2001, S.56 zu K.Meyl: Schwingungsmedizin und Zellkommunikation.
- [54] M.Dworschak: Schwarzwälder Kopernikus, Spiegel-Artikel vom 21.5.01, S. 198-199, abgedruckt im DVR-Mitgliederjournal 2/2001, Seite 41-42
- [55] F.Lutz: Bis jetzt unwiderlegt, Wissenschaftler nehmen Professor Meyl in Schutz, Südkurier Nr.136 vom 16.6.2001 und Badische Zeitung vom 19.6.2002, Seite 22.
- [56] S.Scheurer: Kopernikus untersucht Skalarwellen, Schweizerisches Bodensee Tagblatt Turgau, 21.6.01
- [57] Schneider: Introduction of the author Prof.Dr.K.Meyl: Advanced Concepts for Wireless Energy Transfer, International Congress-Publications, Weinfelden, 23./24.6.2001, Jupiter-Verlag, pp. 23-24.
- [58] R.Schmid: Neues aus der Homöopathie-Forschung, zur Tagung der Samuel-Hahnemann-Stiftung vom 6.-8.4.2001 in Simmerath-E., Globuli II/2001, S.11-12.
- [59] Ralph Netzker: Jurassic Quark, Holden, Wegener, Meyl, ein theoretischer Dreisprung, im Internet unter <http://home.t-online.de/home/ralph.netzker/quark.htm> vom 25.10.01
- [60] H.-P. Studer: Neue Energien für die Zukunft, Vita Sana Magazin für Dialog und Ges., 9/2001, S. 6-9
- [61] Harro Wilke: Leserbrief zu Schwarzwälder Kopernikus, Magazin 2000 plus Nr.164, 10/2001, S. 92
- [62] Dr. R.Kraßnigg: Skalare Wellen, Ärztezeitschrift für Naturheilverfahren, 43, 1/2002, S.19-27.
- [63] Dr.C.Bollkämper: BewusstSein im Energetischen Kontinuum, 10/2002, ISBN 3-8311-4016-2.
- [64] A. und I. Schneider: Bericht vom Kongress „Universale Energielösungen“, 26./27.10.2002 in Bensheim, zu dem Beitrag von Prof.Dr.K.Meyl: Freie Energie und Neutrinopower, NET-Journal, Jg. 7, Heft 11/12 November/Dezember 2002, S. 21-28.
- [65] Dr. P. Rothdach, Dr. H. Böller u.a.m.: Leserbriefe zum Beitrag: Elektromagnetische Skalarwellen im Kreuzfeuer der Kritik. CO'MED, 1/2003, S. 4-5 und CO'MED, 11/2002, S. 4: "Facit (Rothdach): Die Meylsche Theorie ist weder mathematisch, noch theoretisch-physikalisch noch experimentell widerlegt!"
- [66] D. Schindler: Kopernikus aus dem Schwarzwald, Professor Meyl stellt neue Erkenntnisse der Teslastrahlung vor, Bericht im Schwarzwälder Bote Nr. 46 VS, vom 25.02.2003
- [67] H.-H. Gimbel: Neue Energielösungen, Kongressbericht, Wohnung + Gesundheit 3/03 Nr. 106, S. 60
- [68] C. Nack: Umstritten aber begehrt. Viele Akademiker kamen Zum Experimentalvortrag von K. Meyl am 14.03.2003 im Technologiepark von Villingen-Schwenningen, Südkurier 63/TG v. 17.03.03, S.27
- [69] G. Hauser: „Gebäude der Physik wankt“, Meyl sieht seine Theorie durch neueste Berichte bestätigt, Südkurier Nr. 93/V, 23.04.2003
- [70] Prof. Dr. J. Gruber: Großer experimenteller Erfolg von Prof. Meyl, Energie aus dem Feld nachgewiesen! DVR-Mitglieder-Journal 1/03 Nr. 51 vom 4.4.03, ISSN 1435-0815, S. 101-102
- [71] Dr. H. Kersten über K. Meyl's Forschung: Erdwachstum durch Neutrinoabsorption, Technische Universität Berlin, Internationales Kolloquium: Erdexpansion – eine Theorie auf dem Prüfstand, Schloß Theuern am 24.+25.05.2003, Umdruck der TU Berlin Sekr. BH4 Lagerstättenforschung, s.a. Amberger Zeitung vom 28.5.03 und Amberger Nachrichten vom 29.5.03

- [72] Dr. P. Rothdach: „Skalarwellen gibt es nicht und die Welt ist eine Scheibe“, GeoForum 24, 6/2003, Seite 20-22
- [73] Inge Schneider: zu Prof. Dr.-Ing. K. Meyls Forschung: Antiker Götterfunk und futuristische Skalarwellenkommunikation, NET-Journal, Jg. Nr. 8, Heft 7/8 2003, Seite 31 (mit Ankündigungen zu Seminaren von Prof. Meyl in München, an der Universität Stuttgart und in Washington DC, Seite 42)
- [74] J.K.Klasmann: Elektromog, Gefährliche Felder? Gesundheit 9/2003, S.103-104.
- [75] Gesundheitsrisiko Handy?, Hauptreferent Professor Meyl..., Zollern-Alb-Kurier, 8.10.2003 und K.-H. Schlenker, Leserbrief vom 30.9.2003, s.a. Südwest Presse: Kommission fordert Absenkung von Grenzwerten, Hohenzollerische Zeitung vom 7.10.2003.
- [76] Dr. H.-J. Klöse: Die Grundregulation des Menschen, Kongressband zu den Festspielgesprächen 2002, Simma-Kletschka (Herausgeber): Ganzheitliche Zahnheilkunde, Facultas Verlage Wien 2003, Band 27, Wiener Internationale Akademie für Ganzheitsmedizin, ISBN 3-85076-648-9, Seite 95-98
- [77] Dr. Valone, Integrity Research Institute: Nikola Tesla Energy Science Conference, Washington DC November 8th.+9th.2003, Conference publications, speakers biographies and abstracts.

C. Literature concerning the electromagnetic and biological compatibility

- [1] R. O. Becker: Heilkraft und Gefahren der Elektrizität (Cross Currents) 2. Aufl. Scherz Verlag (1994)
- [2] P. Brodeur: Mikrowellen (The zapping of America) Augustus Verlag Augsburg (1989)
- [3] EMVG: Gesetz über die EMV von Geräten, Bundesgesetzblatt Teil I vom 9.11.1992
- [4] Flanagan: Elixier der Jugendlichkeit, Waldthausen Verlag Ritterhude 1992, 1. Aufl.
- [5] E. Habiger u. a. : Elektromagnetische Verträglichkeit, 2. Aufl. Verlag Technik, München 1992
- [6] E. Habiger: EMV, Hüthig Buch Verlag Heidelberg (1992), ISBN 3-7785-2092-X
- [7] E. Habiger: EMV-übergreifende Aspekte zu benachbarten Problemfeldern, Elektrik 48 (1994), H. 5/6, S. 163-167
- [8] N. Harthun: Naturgemäße Technik - Wege für die Forschung nach Viktor Schaubberger, Verlag Delta Design, Berlin 1996.
- [9] H. L. König: Unsichtbare Umwelt (Wetterfühlig.), 5. Aufl., Verlag Moos & Partner München
- [10] Anton Kohling: Grundlagen der Funkentstörung in der Bundesrepublik Deutschland, etz Bd. 108 (1987), Heft 10.
- [11] G. Nimtz: Mikrowellen, Einführung in Theorie und Anwendung. 2. Aufl. Mannheim/Wien/Zürich: BI-Wissenschaftsverlag 1990, ISBN 3-411-03203-0
- [12] Novitskii, Yu. I. : Effects of a magnetic field on the dry seeds of some cereals. Proceedings of Conference on the Effect of Magnetic Fields on Biological Objects, Moscow, p. 52, 1966.
- [13] Plato: Sämtliche Werke 5, Rowohlt's Klassiker Nr. 47, S. 188, 66e
- [14] A. S. Presman: Electromagnetic Fields and Life. Plenum Press, New York - London, 1970
- [15] V. Schaubberger: Die Entdeckung der Levitationskraft, Implosion 1995 Nr. 112
- [16] H. Schulz, W. Oppitz: Lokale Hyperthermie durch hochfrequente Wirbelströme, Medizin Technik 1, 1987.
- [17] G. A. Ulmer: Wellen- und Elektromog, Ulmer Verlag (1994) ISBN 3-924191-73-5
- [18] Vitruvius Pollio, Marcus: Zehn Bücher über Architektur, WBG 1987
- [19] A. D. Watt and E. L. Maxwell: Characteristic of Atmospheric Noise from 1 to 100 Kc/s. Symposium on the Propagation of VLF Waves, Boulder, Col., Paper 35, Jan. 1957.

D. Literature concerning physics in general (particle physics, etc.)

- [1] H. Armbrüster, G. Grünberger: Elektromagnetische Wellen im HF-Bereich, Hüthig und Pflaum Verl.
- [2] W. Bauer: Klassische Physik, Graphia Druck, Salzburg (1975), Eigenverlag.
- [3] K. Bethge, U. E. Schröder: Elementarteilchen, Wissenschaftliche Buchgesellschaft Darmstadt (1986)
- [4] G. Bosse, Grundlagen der Elektrotechnik II, BI 183, Hochschultaschenbuch-Verlag, Mannheim 1967
- [5] Bronstein u.a.: Taschenbuch der Mathematik, 4.Neuaufl. Thun 1999
- [6] A. Einstein: Grundzüge der Relativitätstheorie, S. 162, Anhang II; allg.Bemerkungen C, 5. Aufl., Vieweg + Sohn, Braunschweig 1973.
- [7] A. P. French: Special Relativity, M.I.T. (1968) / Vieweg Verlag (1971) ISBN 3-528-03546-3
- [8] G. Galezki, P. Marquardt: Requiem für die Spezielle Relativität, Verlag Haag+Herchen (1997)
- [9] U. Gradmann/H. Wolter: Grundlagen der Atomphysik, AVG, Frankfurt a.M. 1971.

- [10] Grimsehl: Lehrbuch der Physik, 2.Bd., 17.Aufl. Teubner Verl. 1967
- [11] J. D. Jackson, Classical Electrodynamics, 2nd. Ed., John Wiley, New York, 1975.
- [12] Kleine Enzyklopädie Atom, Verlag Chemie GmbH, Weinheim 1970
- [13] K. Küpfmüller: Einführung in die theoretische Elektrotechnik, Springer-Verlag Berlin, 12. Aufl. 1988.
- [14] H. G. Küssner: Grundlagen einer einheitlichen Theorie der physikalischen Teilchen und Felder, Musterschmidt-Verlag, Göttingen 1976, ISBN 3-7881-6035-7
- [15] Kuchling: Physik, Gl. At4, VEB-Leipzig, 11. Aufl. 1974
- [16] G. Lehnert, Elektromagnetische Feldtheorie, Springer-Verlag Berlin, Heidelberg 1990.
- [17] H.-J. Lugt: Vortex flow in nature and technology. Krieger publishing company 1995
- [18] J. C. Maxwell: A Treatise on Electricity & Magnetism, vol.2, Chapter XX: Electromagnetic Theory of Light. Dover Publ. New York
- [19] Meinke, Gundlach: Hochfrequenztechnik, 4.Aufl. Springer-Verlag Berlin 1986
- [20] Mende, Simon: Physik, Gl. 10. 39, VEB-Leipzig, 4. Aufl. 1974
- [21] G. Mierdel: Elektrophysik, Hüthig Verlag Heidelberg (1972) ISBN 3-7785-0243-3
- [22] O. Nachtmann: Phänomene und Konzepte der Elementarteilchenphysik, Vieweg, Braunschweig 1986, ISBN 3-528-08926-1
- [23] W. Pauli: Aufsätze und Vorträge über Physik und Erkenntnistheorie, Vieweg + Sohn, Braunschweig 1961
- [24] R. W. Pohl: Einführung in die Physik, Bd.2 Elektrizitätslehre, 21.Aufl. Springer-Verlag 1975
- [25] H. Preußner: Der Wirbelring, Halstenbeck 2002
- [26] Shu-wen Zhou: Abnormal Physical Phenomena Observed When the Sun, Moon, and Earth are Aligned, 21st Century Science & Technology, Fall 1999, Vol. 12, No. 3, pp. 54 - 61.
- [27] K. Simonyi, Theoretische Elektrotechnik. 7. Aufl. VEB Verlag Berlin 1979. S. 921 - 924.
- [28] K. Simonyi: Physikalische Elektronik, Kap.: 8.4 Das Magnetron
- [29] K. Stierstadt: Physik der Materie, VCH, Weinheim 1989.
- [30] D. F. Taylor, On the Mechanism of Aluminium Corrosion in Metallized Film Capacitors, IEEE Transactions on EI-19, August 1984, No. 4, pp. 288-293.
- [31] Jean-Pierre Vigié and the Stochastic Interpretation of Quantum Mechanics, selected and edited by Stanley Jeffers, Bo Lehnert, Nils Abramson, and Leve Chebotarev. Montreal: Apeiron, 2000.
- [32] A. Yializis, S. W. Cichanowski, D. G. Shaw: Electrode Corrosion in Metallized Polypropylene Capacitors, Proceedings of IEEE, Int. Symposium on Electrical Insulation, Boston, Mass., June 1980;
- [33] Zinke, Brunswig: Lehrbuch der Hochfrequenztechnik, 1. Bd., 3.Aufl. Springer-Verlag Berlin 1986

E. Literature concerning Tesla and criticism of textbook physics

- [1] M. Cheney: Tesla, Man out of Time, Barnes & Noble Books, New York, 1993, ISBN 0-88029-419-1 und Omega-Verlag (1996) ISBN 3-930243-01-6
- [2] D. H. Childress: The Fantastic Inventions of Nikola Tesla, Adventures Unlimited Press (1993)
- [3] J. DeMeo: The Orgone Accumulator Handbook, ISBN 0-9261855-0-7
- [4] G. Galeczki, P. Marquardt: Requiem für die Spezielle Relativität, Haag+Herchen (1997),
- [5] J. Kowalczyński: Critical Comments on the Discussion about Tachyonic Causal Paradoxes and the Concept of Superluminal Reference Frame, Intern. Journal to theoretical Physics, Vol. 23, No. 1, 1984
- [6] J. Marinsek: Rationale Physik oder wissenschaftliche Science fiction? dbv-Verlag für die Technische Universität Graz (1989) ISBN 3-7041-0176-1
- [7] H. C. Montieth: The Unified Field Theorie, MUFON Symposium Proc., Seguin, Texas, 1980
- [8] F. Moser: Bewußtsein in Raum und Zeit - Grundlagen einer holistischen Weltauffassung auf wissenschaftlicher Basis, Leykam Graz, 1989
- [9] H. A. Nieper: Revolution in Technik, Medizin, Gesellschaft; MIT Verlag Oldenburg (1982)
- [10] O. Oesterle: Ausweg aus der Sackgasse, Ein ganzheitliches naturwissenschaftliches Weltbild, 1. Aufl., Jupiter-Verlag, Bern 1996, ISBN 3-906571-16-5
- [11] Rho Sigma (Dr. Rolf Schaffranke): Forschung in Fesseln, das Rätsel der Elektro-Gravitation, Ventla-Verlag, Wiesbaden (1972)
- [12] N. Tesla: III. The Singular Misconception of the Wireless (Famous Scientific Illusions), Electrical Experimenter, Feb. 1919, p. 732.
- [13] Tesla's verschollene Erfindungen, VAP, Wiesbaden (1994) ISBN 3-922367-93-3
- [15] N. Tesla: Complete Patents, Tesla Book Company (1983) ISBN 0-960356-8-2, daraus:
- [16] N. Tesla: Apparatus for Transmission of Electrical Energy, US-Patent-No.: 649,621, New York 1900, Dr. Nikola Tesla: Complete Patents pp318-321.

- [17] Nikola Tesla: Method of and Apparatus for Controlling Mechanism of Moving Vessels or Vehicles, US-Pat. 1898, Nr. 613,809. Complete Patents: S. 351
- [18] Nikola Tesla: Famous Scientific Illusions, III. The Singular Misconception of the Wireless, Electrical Experimenter, Feb.1919, printed in Tesla Said, p.197
- [19] Nikola Tesla: The Problem of Increasing Human Energy, The Century Monthly Magazine, June 1900, ISBN 1-882137-00-0, Page i-15
- [20] N. Tesla: Die Übertragung elektrischer Energie ohne Drähte..., Electrical World and Engineer vom 7.1.1905; Edition Tesla Bd. 4, S. 131.
- [21] N. Tesla, New York Times vom 15.9.1908; Edition Tesla Bd. 6, S. 241.
- [22] Tesla Said (J.T.Ratzlaff), Tesla Book Company, ISBN 0-914119-00-1
- [23] N. Tesla: Experiments with Alternate Currents of High Potential and High Frequency, Lindsay Publications Inc, ISBN 0-917914-39-2
- [24] W. Theimer: Die Relativitätstheorie, A.Francke AG Verlag Bern (1977) ISBN 3-7720-1260-4

F. Literature concerning geophysics, geology, geography and astronomy

- [1]: Kendrick Frazier: Das Sonnensystem, Time-Life Bücher, Amsterdam (1991).
- [2] Carey, S. W.: Theories of the Earth and Universe. University Press: 1-413, Stanford, California.
- [3] Oesterle, O.: Goldene Mitte: Unser einziger Ausweg, Universal Experten Verlag, Rapperswil (1997)
- [4] Hilgenberg, O. C.: Vom wachsenden Erdball, Berlin 1933, Eigenverlag. und Neues Jahrb. Geol. Paläont. Abh. 116, 1, Berlin (1962).
- [5] Jordan, P.: Die Expansion der Erde. Vieweg 1-180, Braunschweig (1966).
- [6] Robert Bauval und Graham Hancock: Das Geheimnis der Pyramiden, Der Schlüssel zur Sphinx, List Verlag (1996) und in S3 (Die großen Rätsel VII) am 25.5.97
- [7] Mitton, S. (Herausg.): Cambridge Enzyklopädie der Astronomie (The Cambridge Encyclopaedia of Astronomy), Orbis Verlag (1989).
- [8] Miller, R.: Driftende Kontinente, Time-Life Bücher, Amsterdam (1991).
- [9] Hermann Wild: Technologien von gestern. Chancen für morgen, Jupiter-Verlag Bern 1996
- [10] Zecharia Sitchin: The Lost Realms, Knauer Verlag München 1992, ISBN 3-426-04827-2
- [11] Werner Raffetseder: Sonnenfinsternis, Hugendubel Verlag, München 1999, ISBN 3-89631-302-9

G. Literature concerning free energy

- [1] R. L. Clark: Tesla Scalar Wave Systems, The Earth as a Capacitor, The Fantastic Inventions of Nikola Tesla, ISBN 0-932813-19-4
- [2] H.-P. Thietz: Tatort Erde, VAP (1996), ISBN 3-922367-62-3
- [3] Louis Kervran: Biological Transmutations, s.a.:
- [4] J. Heinzerling: Energie aus dem Nichts, Bettendorf'sche Verlagsanstalt, 1. Aufl. 1996
- [5] J. Manning: The Coming Energy Revolution - The Search For Free Energy, Avery Publishing Group, New York, USA, 1996 und Omega-Verlag, Düsseldorf 1997.
- [6] G. Hilscher: Energie für das 3. Jahrtausend, VAP-Verlag Wiesbaden 1996
- [7] A. Schneider: Energien aus dem Kosmos, Jupiter-Verlag 1989
- [8] I. Schneider: Neue Technologien zur Freien Energie, Jupiter-Verl. 1994, S.14
- [9] Dr. H. A. Nieper: Revolution in Technik, Medizin, Gesellschaft; MIT Verlag Oldenburg (1982)
- [10] Prof. Shinchirō Seike: The Principles of Ultra Relativity, Space Research Institute, 1990, ISBN 915517-1
- [11] M. Cheney: Nikola Tesla, Man out of Time, Barnes & Noble Books, New York, 1993, ISBN 0-88029-419-1 und Omega-Verlag (1996) ISBN 3-930243-01-6
- [12] Prof. J. Gruber: Kalte Fusion und Raumenergie, Bericht zur 7. Internationalen Konferenz über "kalte Fusion" vom 19.-24.4.1998 in Vancouver, B.C., Kanada (Infinite Energy, Issue 19, 1998) und Bericht zum "International Symposium on New Energy" vom 23.-26.5.1997 in Denver, Colorado, USA (Denver-Bericht der Fern Universität Hagen)
- [13] H.-J. Ehlers: Special 7, Raum & Zeit Dokumentation, EHLERS Verlag, Sauerlach, 1. Aufl. (1994)
- [14] O. Alexandersson: Lebendes Wasser; W.Ennsthaler Verlag Steyr, 1993
- [15] V. Schauburger: Die Entdeckung der Levitationskraft, Implosion 1995 Nr. 112
- [16] A. Waser (Herausg.): Die rätselhafte Natur - The Puzzling Nature, AW Verlag, Luzern (1996), ISBN 3-9521059-0-2

H. Literature concerning medicine, biology and chemistry

- [1] U. Lüttge, M. Kluge, G. Bauer: Botanik, 2. Aufl.- Weinheim, VCH (1994) ISBN 3-527-30031-7
- [2] N.Begich: Towards A New Alchemy, The Millenium Science, Earthpulse Press 1996, dt. Übers.: Auf den Spuren einer neuen Alchemie, Omega-Verlag 1997
- [3] Cousto: Die kosmische Oktave, Synthesis Verlag Essen 1984
- [4] Prof. Dr. H. Heine: Grundregulation und Extrazelluläre Matrix – Grundlagen und Systematik, Lehrbuch der biologischen Medizin, (1991) 2.Aufl. Hippokrates Verlag Stuttgart, Seite 63
- [5] U. Warnke: Bioresonanztherapie – Wunsch und Wirklichkeit. Medizin transparent Nr.2/1996, S.36-37
- [6] Dr. H. Clark: The Cure For All Diseases (1995), dt. Übers.: Heilung ist möglich (1997) Knauer Verlag
- [7] Dr. Hulda Clark: The Cure for All Cancers (1993) New Century Press, USA, dt.Übers.: Heilverfahren aller Krebsarten
- [8] Dr. Bodo Köhler: Biophysikalische Informations-Therapie, Gustav Fischer Verlag (1997)
- [9] Dr. Bodo Köhler: BITsyn, der neue Weg in der Informations-Medizin, Jubiläums-Schrift der Intern. Ärzte-Gesellschaft für Biophysikalische Informations-Therapie, Bad Nauheim, 6.-8.10.2000.
- [10] Bioenergetische Messverfahren in Theorie und Praxis, Vortragsband der Gesellschaft für Energetische und Informationsmedizin e.V., Universität Stuttgart am 17.7.1999 und am 7.10.2000
- [11] Dr. Johann Lechner: Störfelddiagnostik, Medikamenten- und Materialtest, Teil 2 aus der Reihe: Praxis der Ganzheitlichen Medizin und Zahnmedizin, Verlag Dr. E. Wühr (2000)
- [12] M. Lüscher: Der 4-Farben-Mensch, W. Goldmann, München 1977
- [13] M.Lüscher: Das Harmoniegesetz in uns, Econ-Verlag 1993
- [14] F.A. Popp: Neue Horizonte in der Medizin, 2.Aufl. Haug Verlag Heidelberg 1987
- [15] M. Bischoff: Biophotonen, das Licht in unseren Zellen, 2001

J. Literature concerning history and more peripheral subjects

- [1] David Ash, Peter Hewitt: Science of the gods, Gateway Books, Bath, 1990.
- [2] T.E.Bearden: Skalar Technologie, Michaels Verlag 2002, ISBN 3-89539-250-2.
- [3] Thomas Valone: Das Unipolarhandbuch, Michaels Verlag 2001, ISBN 3-89539-295-2.
- [4] R. Sheldrake: Sieben Experimente, die die Welt verändern könnten. Goldmann Verlag 1994
- [5] R. Sheldrake: Das schöpferische Universum. Meyster Verlag München 1983.
- [6] H.Lüdeling: Handbuch der Radiaesthese, Verlag Eike Hensch 1994, ISBN 3-927407-09-7.
- [7] Hensch: Radiaesthese im ländlichen Bauen und Siedeln, Arbeitskreis zur Landentwicklung in Hessen, W4, Wiesbaden 1987
- [8] H. Mayer, G. Winklbaur: Biostrahlen, Verlag ORAC, Wien 1989, 5. Auflage
- [9] Rohrbach: Radiaesthese, Physikalische Grundlagen und Anwendung in Geobiologie und Medizin, Haug Verlag Heidelberg 1996.
- [10] R. Schneider: Einführung in die Radiaesthese Teil II: Leitfaden und Lehrkurs ..., Oktogon-Verlag, Wertheim, 2. Aufl. (1984).
- [11] Lamer: Wörterbuch der Antike, Kröner Verl. Bd.96
- [12] K. Schefold: Die Griechen und ihre Nachbarn, Propyläen Kunstgeschichte Berlin Bd. 1
- [13] T. Kraus: Das römische Weltreich, Propyläen Kunstgeschichte Berlin Bd. 2
- [14] G. Gruben: Die Tempel der Griechen, Wissenschaftliche Buchgesellschaft Darmstadt 1986
- [15] E. Horst: Konstantin der Große, Eine Biographie, Classen Verlag 1985 Düsseldorf, 2.Aufl.
- [16] Vitruv (Marcus Vitruvius Pollio): Zehn Bücher über Architektur, Übers. von Dr. K. Fensterbusch, Wissenschaftl. Buchges. Darmstadt 1987, 4. Aufl.
- [17] A. Springer: Das Altertum, A. Kröner Verl. Leipzig 1915, 10. Aufl.

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