



*School professors Vladimir Makats (Ukraine).
Initial course of remote training of doctors
on a problem: "Functional biodiagnostics and
Correction of vegetative infringements at children".*

UDC 001.894:612
76.29.47-pediatrics; 76.35.35-rehabilitation;
76.35.49-alternative medicine;

*... According to recommendations the CART of one of
bases of medicine at the present stage should become
electro diagnostics on points of acupuncture and
reflexotherapy ... [the International meeting the CART
on traditional medicine. Yerevan, 19-20.09.2003].*

**IS FUNCTIONAL-VEGETATIVE SYSTEM OF THE PERSON. BIOWPOWER
ESSENCE LIVE AND FACTORS SMALL INTENSITY (message-2).**

Makats E.F.

Vinnitsa National medical university of N.I.Pirogova of Ministry of Health of Ukraine

21036, Ukraine, Vinnitsa, Revolutionary 26/3, dr.makats@yandex.ru dr.makats@i.ua

The resume. Questions of the biopower and bioinformation organization Live are considered. The analysis of a role of factors of small intensity is given and their value in opening of is functional-vegetative system of the person is predicted.

Keywords. Bio-energetics Live. Factors of small intensity.

The short preface. Article "Is functional-vegetative system of the person. The biopower essence Live and factors of small intensity (message-2)" is the second of three necessary prefaces to the consecutive information on the unknown person before a biophysical reality - Is functional-vegetative system of a forehead-century.

The research objective - a preliminary substantiation of the subsequent information on system unknown earlier which, along with other ignored phenomena, forces to comprehend critically orthodox paradigms of biology and demands corresponding correction of modern educational and rehabilitation programs.

Results of research and their discussion. The methodology of opening Of is functional-vegetative system of the person and the proof of a biophysical reality of traditional canons (bases) of Chinese Chzhen-tszju of therapy is developed on the basis of the ability of biological systems

opened by us to generate a current in the external closed chain!

Following basic positions became theoretical base.

1. The bioelectric phenomena are processes of distribution and transport of energy carriers in an organism. They are caused by presence in live cages and fabrics of a considerable quantity fixed (the charged groups биомакромолекул) and mobile (free электроны and ions) electric charges.

2. Water, liquid composite systems and biological objects on their basis, capable to generate a current in it is artificial the created external chain, that is natural biological the energy generator.

3. External and internal functionally active (Acupuncture) a zone (PHASES) and connecting them electro wire (acupuncture) channels were generated in the course of evolution and became peripheral representatives of real biophysical system which provides processes of a power information exchange between the external and internal environment.

4. For creation of a natural biological source (the **biological generator of energy**) of a current are necessary:

- The generator of biogenic energy (an organism, liquid composite system);
- Electrodes donors electrons (DE) - suppliers электронов in functional systems of biological object and electrodes acceptors electrons (AE) – receivers free **carriers of electric charges**;
- It is artificial the created external contour with the device of control which through DE and AE contacts from functionally active zones of an organism (**the biological generator of energy**).

5. Metals or their alloys, which form a little strong ($\nabla\text{-H}^{\circ}$ 29840 kcal/atom 0) can be electrodes DE, or moderately strong ($\nabla\text{-H}^{\circ}$ 298 65 kcal/atom 0) oxides, and also the titan, carbon (graphite), polycrystalline artificial diamonds, current-carrying rubber ... As electrodes AE use the oxidized alloys on the basis of zinc, aluminum, magnesium and some other impurity (in the proportions which are not allowing a bioelectric chain to exceed level of membrane potentials) ...

6. The contact difference of electrode potentials causes the directed transport of free energy carriers from the natural generator in the external closed contour. On these principle systems of vegetative biodiagnostics both universal bioactivities VITA-01-M and their updating work.

Especially important feature of electrodes DЭ and AЭ is their potential specific activity which at a game-step from FAZ of a skin does not exceed level of membrane biopotentials (0, 03-0, 6 V).

The theoretical substantiation causes a number of questions of principle. And the first of them – whether electrodes DЭ and AE in galvanic pair, that is usual chemical sources of a galvanic current (HIT) are?

The question basic and, first of all, demands detailed consideration of the nature of a galvanic current.

Galvanic currents and their nature. From electrochemistry it is known that metals have different electrokinetic potential of action. Therefore some metals give cations to a solution and are charged negatively, and others - is positive (accepting on border metal-solution ions). Thus the standard electrode potential characterizes activity of metals in their solutions. In these cases metals behave as reducers, and their ions as oxidizers, therefore reaction of metals in their solutions and is called as oxidation-reduction.

Thus, the electrode (any metal), shipped in a solution of its ions will be oxidation-reduction pair. For example, Cu/Cu^{2+} , where in numerator the restored form, and in a denominator the oxidized. For an example we take copper and zinc electrodes and we will place them in a solution of

THE CHARACTERISTIC OF STANDARD POTENTIAL

The restored form (metal)	Number given electrons	The oxide form (metal ion)	Standard electrode potential, V
K	1-e	K ⁺	-2,92
Ca	2-e	Ca ²⁺	-2,87
Na	1-e	Na ⁺	-2,71
Mg	2e	Mg ²⁺	-2,37
Al	3-e	Al ³⁺	-1,68
Zn	2-e	Zn ²⁺	-0,76
Fe	2-e	Fe ⁺	-0,44
Fe	3-e	Fe ³⁺	-0,04
H ₂	2-e	2H ⁺	0,00
Cu	2-e	Cu ²⁺	0,34
Cu	1-e	Cu ⁺	0,51
Ag	1-e	Ag ⁺	0,80
Au	3-e	Au ³⁺	1,50

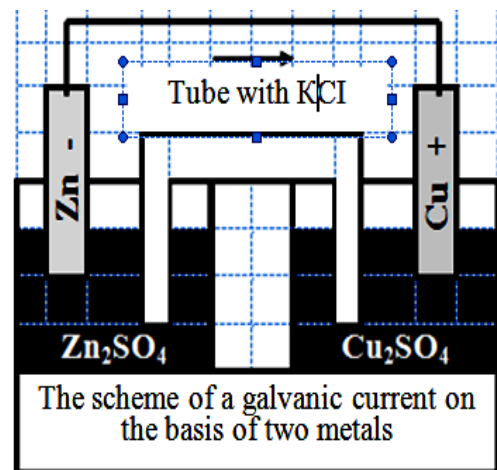
Sulfates with concentration of ions 1 moth/l. Their pressure can be estimated proceeding from standard potentials of the zinc and copper electrodes which sum makes 1,1B. For its measurement electrodes connect a copper wire and two glasses to solutions - electrolytic the bridge (a glass tube with KCl). Thus on the tube ends it is necessary to arrange partitions for the purpose of the prevention of transition of ions from one solution in another. On a zinc electrode in a solution of sulfate of zinc there are ions at the expense of reaction $Zn-2e^- \rightarrow Zn^{2+}$.

Similar process occurs and on a copper electrode where constant allocation of copper ($Cu^{2++} 2e^- \rightarrow Cu$ is observed). That is zinc is oxidized, copper

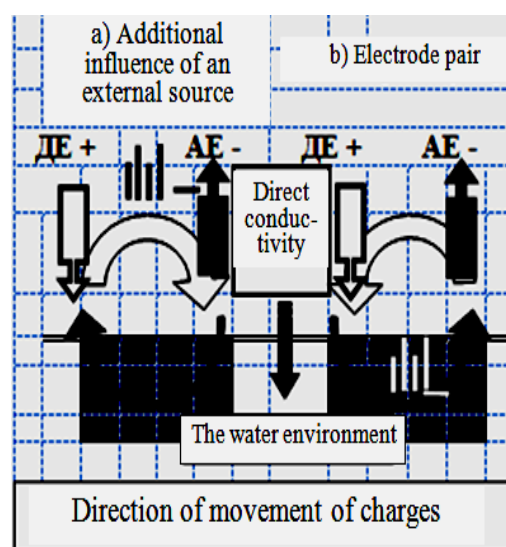
ions are restored, and received on to this basis the current is called to galvanic (constants) and is used in physiotherapy in limits 30-80V and 0,05-0,1mA. Its positive influence is caused by small doses (density to 0,05-0,1 mA/sm² and duration till 15-20 mines). Negative reactions are Thus noted also. V.Manojlov describes fatal cases at use of a galvanic current 12V in the field of a neck and a temple. Sometimes patients from a current mkA have at 10-20 nausea, dizziness and infringement of a warm rhythm. Therefore today it is necessary to find out clinical comparability of galvanic currents to the electronic transport initiated by electrodes.

Whether there can be water the energy generator? Water is capable to generate a current in is artificial the created external chain at use of chemically inert electrodes of donors and acceptors electrons (DE and AE)! Thus its property to generation essentially differs from known electro conductivity. As have shown our supervision, transport carriers of electric charges in the water environment it is realized in a direction from electrode DE (+) to AE (-) (fig. 16). If in a chain added the galvanic battery Corundum (6R-E22, 12B; fig. 1a) the transport orientation carriers of electric charges depended on its polarity and to be realized in a direction from (-) to (+).

Further the chain closed through the water environment provided with various combinations of electrode pairs (DE and AE) or different contacts to the battery (fig. 2). In last variant chain electromotive power (c.e.p.) chains was always unidirectional (- / +), pressure fluctuated in limits $345 \pm 14 - 980 \pm 30$ mV, a current strength - $195 \pm 12, 3$ and $6.000 \pm 49,5$ mkA. Opposite change of plugs of the battery with (-) on (+) caused similar changes in a deviation of an arrow of a galvanometer of meter (fig. 2 a, b, c, d).



of the prevention of transition of ions from one solution in another. On a zinc electrode in a solution



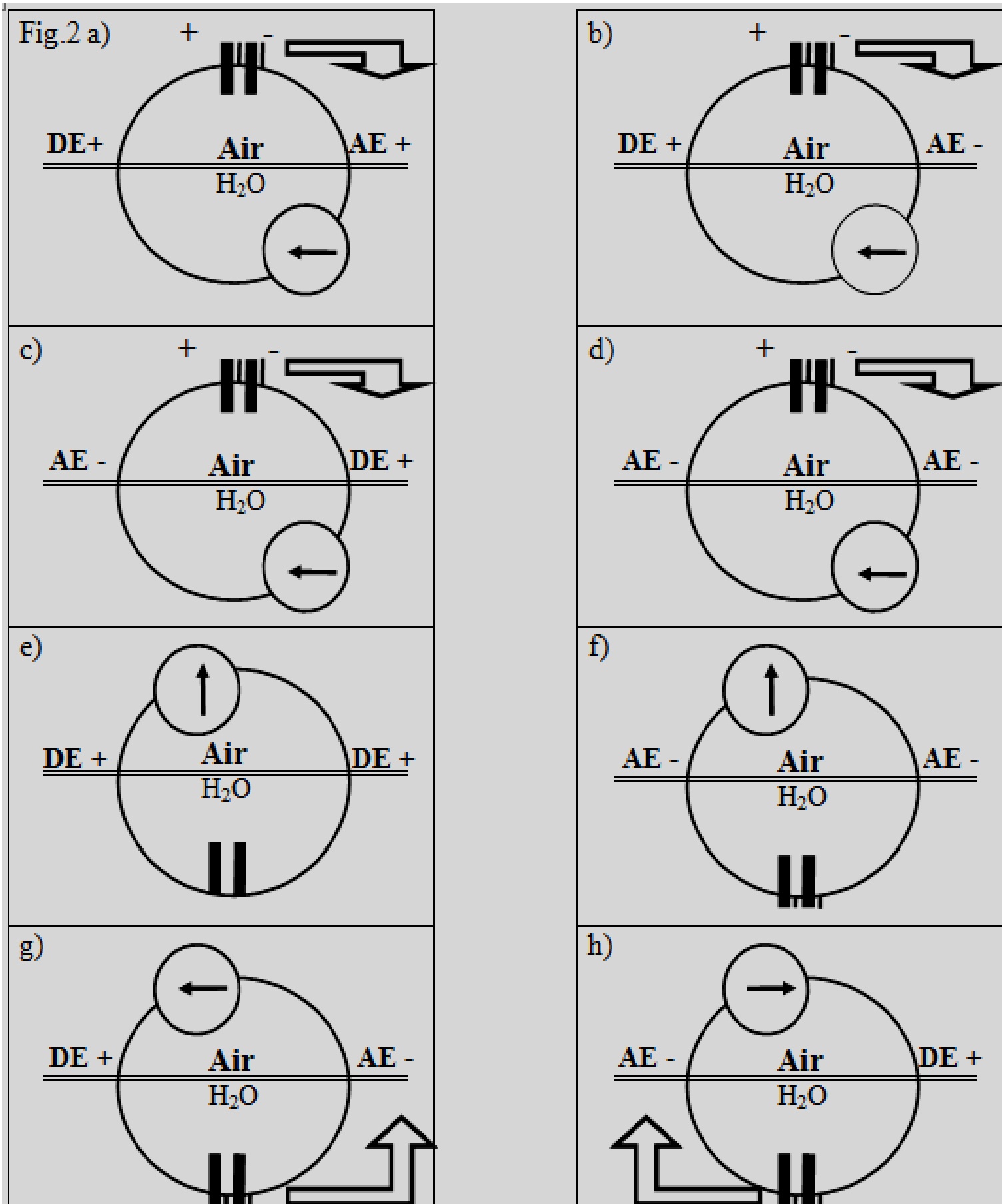
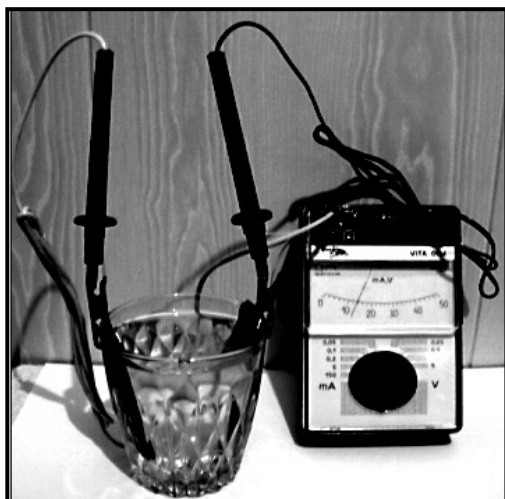
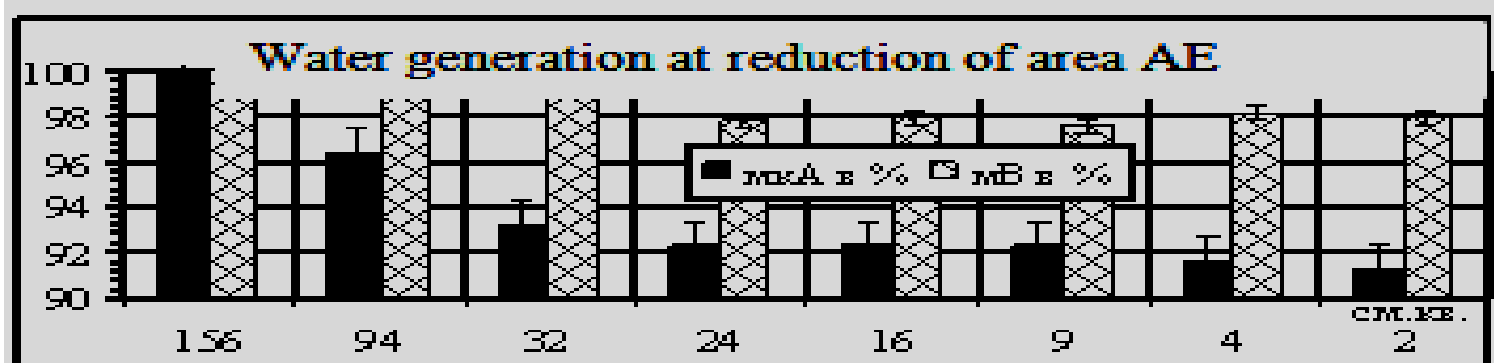
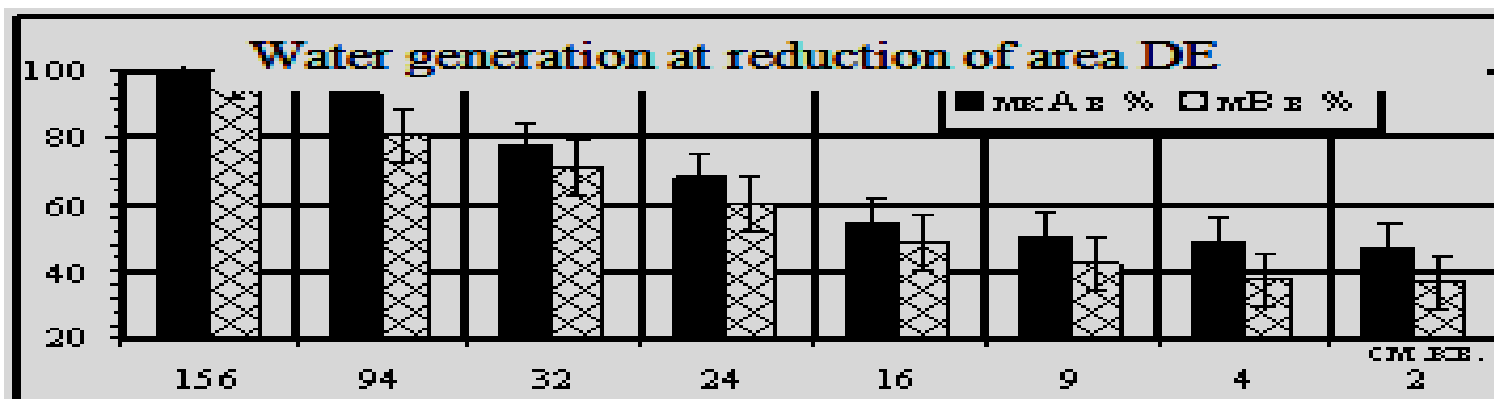


Fig. 2



The surprising situation arises at use DE and AE without an additional traditional external source of a current. So, if in a chain with the same electrode steams (DE-DE, or AE-AE; fig. 2 e,) water is indifferent (the arrow of a galvanometer doesn't move) immersing in water of polytypic electrode pairs DE-AE (fig. 2 g,) caused electric current generation in an external chain. Thus carrying over зарядоносителей in the water environment again went in a direction from electrode DE (+) to AE (-), keeping in an external part of a chain electromotive power from (-) to (+). Differently in cases in point as an actual energy source water (the photo see) acted... Thus there is a question: whether generation of water depends on the area of electrodes DE and AE?

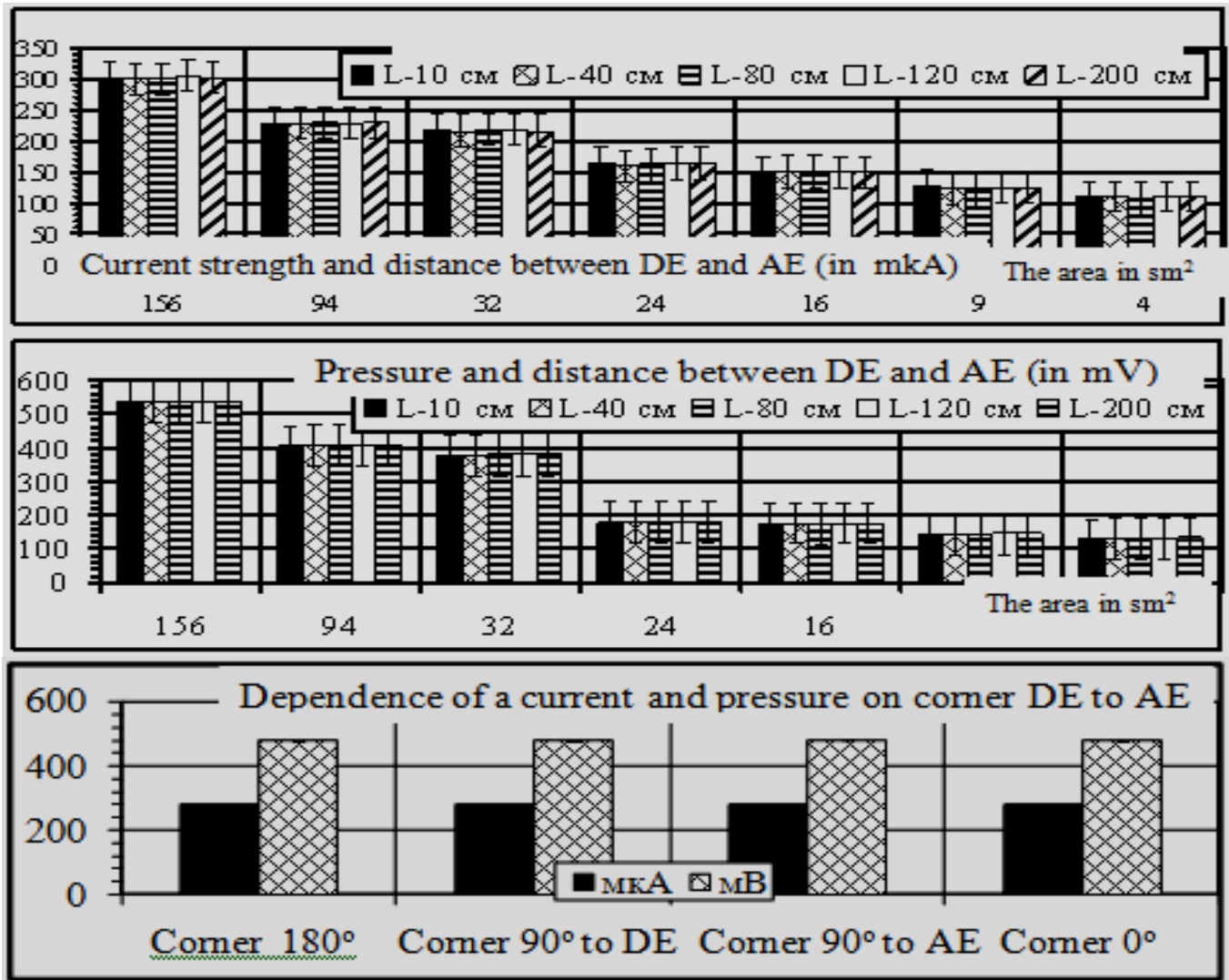
Natural generation of water and electrodes DE-AE. It has appeared that activity of natural water generation depends on the area of electrodes DE and AE. So, electrode pair with identical (156 sm^2) the area causes current generation in 146-310 mkA at pressure 214-584 mV (depending on quality of water). Reduction of the area of electrode DE from 100 % to 1, 28 % causes authentic reduction of a current strength by 53,1 % and pressure to 64,4 % that specifies in dependence of natural generation of water on area DE. Similar reduction of area AE is accompanied by insignificant decrease in a current strength to 8, 81 % and pressure to 2,4 % that specifies in practical absence of dependence...



Current strength and pressure in a chain don't depend on distance between electrodes DE and AE. Thus chemically proof electrode pair causes water generation for a long time. In one of

Experiences we observed this phenomenon within 52 hours, at fluctuation of a current strength within 227-235 mA and pressure 360-391 mV (distance between DE and AE - 50cm, and the area, accordingly, 94 and 156 cm²). Supervision has stopped in connection with absence of authentic dynamics.

Thus different materials DE and AE on a miscellaneous initiate water generation, leading up a current strength from 210 mA to 16.000 mA and more, and depend on area DE. And, at last, indicators of a current and pressure in a chain don't depend on an angle of slope between electrodes.



Ability of water to differently vector generation. Water is capable to generate a current in is a little artificial the external chains created and located independently from each other (the donors created by separate electrode steams and acceptors electrons).

So, in dielectric capacities with water placed some electrode pairs. The areas of electrodes were different, and steams are located in opposite and crossed directions. In the first variant (fig. 1a) activity of each of three chains made 450 mA and 260 mA; in the second (fig. 1b) 470 and 280 mA, and in the third (fig. 1c) - 524, 320 and 75 mA. Because within three hours of supervision the data practically didn't change, the conclusion has been drawn: water is capable to generate energy simultaneously in slightly independent and even crossed directions!

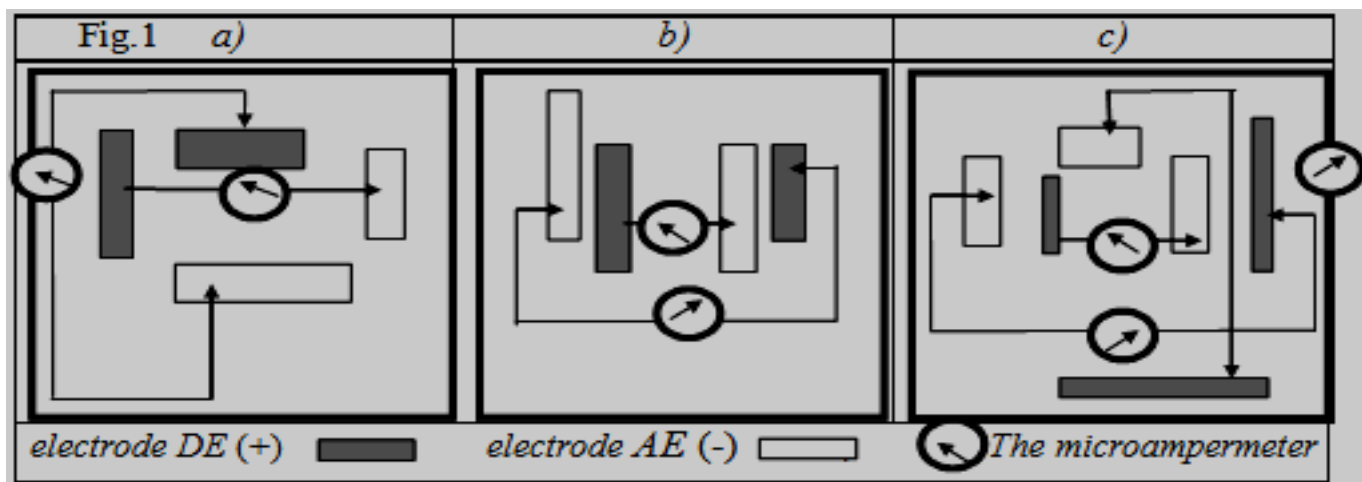


Fig. 1

Water is capable to provide multicomponent generation with one general electrode DE or AE (fig. 2). In a difficult chain with the general electrode DE and three identical electrodes on area AE (fig. 2a) the following was observed. A current strength of each (again created) chain decreases for 28,9-21,2 % from individually possible. And total activity of the combined chain increases by 60,5-128,4 %. In a chain with the general electrode AE and identical electrodes on area DE (fig. 2b), activity of each subsequent chain increases by 62, 5-78, 1 %. Thus its total activity reaches 92, 5-288, 1 %. Thus, activity of water generation depends on the area of electrodes DE ...

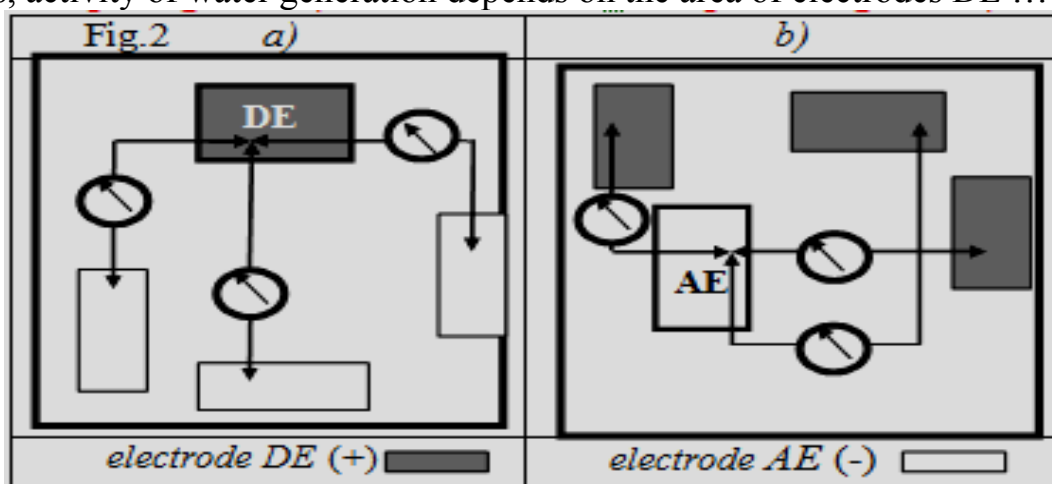


Fig. 2

Electronic conductivity of water. Was considered earlier that electronic conductivity of water is caused exclusively by its ionic structure. But studying of properties of the water deprived of ions, spent by us in laboratory of hypothermia of the Kiev Scientific research institute of problems of oncology of R.Kavetsky, and has changed a sight. The water deprived of ions has been received on installation "Milli-Q" firms "Millipore" (USA). The distilled water was spent through four cartridges: the first coal (for clearing of organic connections), two ion exchangers (mixed cationite and anionite), the second coal "Super-C" (thin clearing of organic connections) and sterilizing filters.

Despite practical absence of ions in the received water (their final concentration is finished till 18-10 ϕ -18 by Mom), last generated a current in system with electrode steams DE and AE. In one of experiences, at the area of electrodes of 8 sm^2 water generation has caused a current in 4 mkA. But after its check eelectric conductivity in a chain with the traditional battery ($I = 45,4$ mkA), ability of a

Pre-production model to generation in the conditions of electrode pair has sharply raised and has reached 40, 8 mkA.

It is necessary to think, what the specified phenomenon has caused additional saturation of water electrons environment (ions?) from an external (chemical) source of a current. Solutions of chloride of sodium raise generation activity of water even more. So, if tap water is capable to generate to 3,1 mA, 1,5 % a solution of chloride of sodium - 78 mA, and 3 % - 140 mA. It is necessary to notice that different materials DE and AE have different ability to initiate water generation. Thus the current strength in each case can reach considerable sizes: from 210 to 16.000 and more mkA, depending on the area of electrode DE.

Well, the basis of all lives - the Madam Water (!) - has revealed the next secret, it having appeared the natural generator of energy. Also there are no doubts that at the heart of bio-energetics its power information transformations providing the program of Life as a whole lie. As the system biopower effects found out by us are unequivocally similar both for liquid composite systems, and for biological objects...

Now has come to consider time the second question of principle about dependence of processes of natural biogeneration from functionally active (акупунктурных) zones and a role of electrodes of donors and acceptors electrons ...

Biophysical features of biogeneration in a chain between electrodes DE-AE. First, not so long ago the leading scientific magazine of USA Scientific American (N1,77, c.105) has noticed that till now the nature of galvanic effects and biopotentials is unknown... Secondly, use of electrode pair in the water environment probably also has some relation to chemical processes, but after all water itself has appeared the natural generator of energy! Therefore on the brought attention to the question (whether electrodes DE and AE chemical sources of a current - the CSC are?) the answer is unequivocal: No!

And the following testifies to it.

- 1) Presence in an organism mobile (free ions and electrons) energy carriers.
- 2) If electrode pair DE-AE was a chemical source (CSC), the current in a bioelectric chain would be to constants. Practically we register разночастотные packages with individual phase and peak features.
- 3) Chain electromotive power In biological objects doesn't exceed 0, 03-0, 6V that corresponds to membrane potentials. It doesn't depend by nature electrodes DE and AE, their sizes and duration of contact.
- 4) Bioelectric activity (BEA) is characterized by accurately expressed age features and differs in 1,5-15 times. It the greatest at children's age (to 600 mkA) and at young men (to 200-500 mkA), and the least at people of advanced years (till 10-40 mkA).
- 5) The Expressed ability of biological systems to self-control of bioelectric activity. So, at contacts of palms to two electrode steams (which activity in the water environment made, accordingly, 7.800 and 27.000 mkA), individual bioelectric activity (БЭА) in group of young men fluctuated only within 0,05-17,4 %.
- 6) The Essential difference between bioelectric activity of an organism and its electric conductivity in the same conditions. Thus, electric conductivity exceeded bioelectric activity, accordingly, on 15 % (at an initial current strength 100 mkA), on 30,2-42,9 % (at 200-600 mkA), on

41,3-45,2 % (at 700-1000 mkA) and on 35,7-40,7 % (at 2000-3000mk).

7) Absence of histochemical consequences at long (till 25 days and it is more) contact of electrodes DE and AE with subject fabrics that is impossible at long influence of a galvanic current.

8) Dynamic fluctuations BEA at long supervision.

9) Negative results of vegetative biodiagnostics on Makats and normalization of its indicators at correction of a power information (vegetative) homeostasis.

10) Ability of an organism simultaneously to generate even in crossed directions, including with the general electrode DE or AE.

11) Any external influence (oxygen loading, nitroglycerine under language, Massage integrated Zones with the raised reflex sensitivity, static pressure and so forth) causes immediate reaction in the form of excitation of a control bioelectric chain.

12) During rehabilitation procedures bioelectric activity of an external chain dynamically changes.

From here conclusions:

1) chemical sources of a current (CSC) to create similar biophysical phenomena aren't capable;

2) specific electrodes DE and AE, at least, carry out function of the organization of the directed transport of free carriers of charges.

And now the most interesting.

Features of transport of carriers of charges in biological systems. Our experimental researches have shown that functionally active zones (FAZ) and electro wire channels uniting them represent functional system of the directed transport, distribution and redistribution of free energy carriers.

The following unequivocally testifies to it.

1. Transport of carriers of charges through biological object is realized in a direction from electrode ДЭ to AE. If the external chain between electrodes in addition joins a traditional source of a current (battery) the orientation of carriers of charges becomes dependent on its polarity and goes from (-) to (+).

2. Movement of carriers of charges on the closed bioelectric chain arises only under condition of direct contact of electrodes DE and AE from FAZ of a skin and is accompanied sharp (to 98.3 %) by oppression at infringement at least one of them.

3. The maximum bioelectric activity of a chain arises at contact of electrodes DE and AE with single-channel FAZ and is sharp (on 97,8 %) is oppressed at infringement at least one of contacts.

4. Authentically big BEA (on 73,4 %) it is formed in a chain between single-channel FAZ, than at electrode contact to two FAZ of different channels. Thus in the first case the distance between contact functionally active zones can be in 2-6 times more.

5. The revealed features of functional bioelectric activity of difficult chains with one general of electrodes ДЭ or AE (the formed contacts to PHASES of different channels). Thus at the expense of redistribution of transport of carriers of energy the following is observed:

- In case of a difficult chain with the general electrode AE and the several electrodes DE, each additional chain causes oppression total BEA a difficult chain, and forms in its separate components zero and even negative values, changing an orientation of movement of carriers of energy to the

opposite;

- In case of a difficult chain with the general electrode DE and the several electrodes AE, each additional chain causes increase total BEA a difficult chain and each of the previous chains.

Thus in all cases value BEA of each chain depends on a reality of electrode contacts from skin FAZ.

6. Mechanical massage of separate FAZ causes stimulation different in force The general BEA ("Tszu-san-li" especially it is in this respect allocated FAZ ST-36).

7. The biological system can generate simultaneously a current in some independent bioelectric chains, including parallel, directed to the different party and even the crossed. Thus BEA each chain practically doesn't depend on other chains, reacting only to a reality of electrode contacts from FAZ.

8. Transport of energy carriers increases by 42-75 % in the presence of damp electrode contact with corresponding FAZ.

9. Ability of biological objects to group generation in the general, it is artificial the formed chain which forms conditions for an electronic exchange between biological systems. Thus BEA the general chain depends from individual BEA its participants.

Thus, there is obvious a following.

1. Water, composite solutions on its basis and live biological systems inherently are natural generators of energy.

2. Fundamental value in bio-energetics functionally active zones and connecting them electron-spent (acupuncture) have channels. Their presence is revealed today even at level of vegetative life.

3. Rather chemically proof electrodes DE and AE form the directed transport of energy carriers through biological object in is artificial the created external contour and aren't the CSC. At contacts to FAZ they act, at least as components of reception and transfer in system of natural biogeneration ...

4. Open phenomena form a fundamental component of biopower level of the organization and regulation Live, forming a biophysical reality in the form of is functional-vegetative system.

5. The drawn conclusions cause necessity to consider questions of biopower and information levels of the organization and regulation of difficult biological systems.

Biopower level of the organization and regulation Live. The traditional analysis of chemical reactions doesn't consider difficult interrelations which are really formed during difficult processes at absorption, transformation and energy allocation. The majority of researches are limited by questions of allocation of thermal energy and only the important role of electron-transport processes recently began to be realized during development mitochondrial adenosin-trifosfornoj acids (ATF). Meanwhile, mechanical, chemical, and physiological processes in the nature and an organism are accompanied by the power factor which has appeared more informative and dynamical, than material processes.

At any interaction of type A-B always takes place a component C - the allocated or absorbed energy specific to concrete process on which it is possible to watch its transformation (fluorescent methods of research, a nuclear magnetic resonance, spectroscopy and others). Thus it is possible to see specificity of power transformations (spectra and intensity of radiation, polarization, shift of a wave phase and so forth). The special attention is given to a process orientation: to absorption or

allocation by substance of energy for the specified complex forms rather closed system. As chemical and physiological reactions proceed in parallel in time and space, between them there should be mutually regulating communications that means real existence of information level of control and influence.

Its reality is recognized today. A.Gurvicha's researches have shown an important role of a spectrum of ultra-violet radiation in regulation of exchange processes and a cellular metabolism. A.Vernadskij's works have put a theoretical basis of the given direction in a modern science, having entered concept of Biosphere as interdependent vital complex. The researches specifying for a role and value of electromagnetic waves, sound fluctuations and other power influences of small intensity that confirms the importance of the given level of consideration of a problem collect.

It is represented that levels of biopower transformations act as the information factor, complexity and which variety isn't realized yet sufficiently. In the fundamental plan the similar condition of the Matter reflects information long-range action for similar waves can't be localized. They cover considerable space and unite local material structures which aren't capable to interaction as a result of the corpuscular nature.

As the main mechanism of interaction today consider a resonance. It is a basis of specific dependence and allows functionally adjusted systems to react to waves - signals. Integrating frequencies of a rhythm can differ on many usages: from frequencies UV of a range (A.Gurvicha's mitogenic beams) to slow brain (daily and annual biorhythms). Thus for all resonant interactions (even a priori) there should be following principles.

Self-organizing. It is known, what even for mechanical fluctuations there is no bottom limit of intensity. An important condition of occurrence of a resonance is only presence of specific conditions of its occurrence - for example, environments (field) of transfer of influence. Thus resounding fluctuations amplify, instead of resounding – are oppressed (fade) that forms the following mechanism of regulation Live: cooperating selectivity of frequency interactions and formation of supervising excitation system. Last has possibility of simultaneous participation of resounding components in many resonant directions that forms the Multi-dimensional resonant field of interactions (the general properties of synchronization are patented by I.Blehman's as opening).

As following property dependence of synchronization on a number of conditions acts:

- partial frequencies of objects;
- increases of an order of a mode of synchronization (maximum at a frequency parity 1:1 and minimum on secondary harmonics);
- a set of steady conditions in concrete conditions;
- total function of synchronizing systems which aspires to a minimum;
- idle communications and possibility of occurrence of a mode of mutual clearing;
- effect of frequency averaging at formation of resonant complexes;
- possibilities of capture by system of external frequency;
- presence of the leading generator with the maximum frequency of fluctuations;
- strips of synchronization for nonlinear biological systems, etc.

Complexity of Live systems provides a reality of resonant transformation of energy for constant process of adaptation causes necessity of constant correction of resonant rhythms that, in turn forms steady sets of resonant interactions. From here the conclusion according to which power transformations act as the information factor causing the subsequent synchronization and self-

organizing of difficult biological systems arises, coordinate interdependence of the external and internal environment and for the present are on the verge of consciousness, understanding and use ...

Information level of self-organizing of difficult systems. Its understanding has come with cybernetics development in which basis the specific component with property of the Signal lies. Thus power transformations act as the transmitter of the alarm information between the ideal form of the Signal and material making any system. It is necessary to understand that laws of an information exchange have the specific features which are distinct from laws of corpuscular and power interactions. Moreover, of cybernetics clearly what exactly the information component is level of management of system and forms conditions of its functioning and evolution.

The science of last century has excluded from medicine biology such concepts as "vital force", electric and magnetic fields and has reduced all processes in a live organism to chemical reactions. However today insufficiency of such explanation becomes obvious. The etiology of some diseases remains not understood, treatment methods become complicated and will melt more expensive and less predicted in respect of expected complications. At the same time researchers don't doubt that many conditions of live organisms are explainable only their high sensitivity to electromagnetic fields.

From the biophysical point of view the organism represents the open system which electromagnetic processes proceed on a joint internal and dwelling environment. Also doesn't cause doubts that fast accumulation of the information on biophysical essence of live systems will cause in the near future revolution in biology and medicine. Nevertheless, the question on the nature of biofields remains opened and has two hypotheses. One considers it as set of known physical realities, and another – carries to essentially new field of the Nature. So, for example, the group of the Moldavian physicists develops the theory electromagnetic solitons, and Kazakh - aspires to explain a biofields from a position of physics of plasma. Thus as bioplasma understand existence of a steady complex of elementary particles.

Today it is proved that the live organism creates a biological field of a difficult configuration which depends on its physiological and mental condition. Thus (that is the extremely interesting!) the field aura essentially depends on acupuncture, changing on color, pressure and a range of an electronic emanation. Attracts attention that the described results are steadily reproduced and depend on a functional condition hypothetical acupuncture zones. As experimental acknowledgement acts widely known effects of Kirlian and gas-discharge visualization which are activated by high-frequency electric field and assume presence in air round object of the raised concentration of electric charges of a biogenic origin.

The cult of a hand of the person (power therapy) exists since ancient times and according to definition the CART is carried to concepts of alternative medicine. As marks T.Pojletti, power therapy often leads to treatment of patients which couldn't be cured other methods. It is known also that the irradiation of plants biofields strengthens their growth, and red and dark blue colors are more active, than biofields of green color. Power therapy stimulates development of larvae *Tenebrio Molitor* for 20 days before control group and influences process of dehydration of skeletal muscles. As «the Medical newspaper» wrote (№102/4963 from 25.08.89) scientist Tszjan Kan-chmen has come to a conclusion that any form live a matter (an animal, a plant or a microorganism) radiates energy in a range of ultrahigh frequencies.

This phenomenon has been named by miscommunication. On its basis in a number of ex-

periments of Tszjan achieved genetic changes at level of different representatives of the live world. So, from the eggs irradiated biological over high-frequency waves (microwave oven) of a duck, baby birds with membranes on paws and its form of a body hatched. Thus adult individuals had weight on 50 % more than in control group. It is indicative that in Novosibirsk institute of clinical and experimental medicine of the Siberian Branch of Academy of Medical Sciences of the USSR (1980) hypothesis of biocommunication has been recognized the well-founded and worthy experts of a corresponding profile.

In a number of references remote influence of the person-operator on subjects isn't. At the Leningrad institute of technology of the medical equipment and the Moscow higher technical school of Bauman (1978) tens series of experiences for the purpose of objective registration of this effect are spent. By numerous researches in the presence of experts of a different engineering and physical profile it is established that at the operators, capable to cause telekinesis, considerable impulses of an electromagnetic field are generated. Magnetic both acoustic impulses and considerable easing of intensity of a beam CO-laser on length of wave 10,6 мкH in the field of its interaction with the operator are registered also.

In biophysical features of an organism specifies effect of a biolocation - a framework deviation in hands of the operator under the influence of revolting object (underground waters, ore deposits). Supervision confirm its reproducibility, and efficiency is proved by revealing of ore deposits, radonic and underground waters with *примышленным* an output.

As N.Sechevanov testifies, effect of a biolocation is observed on plain, in wood, on underground developments and premises. Thus hypnotic suggestion to the operator of false representation about an anomaly place doesn't affect on effect of a biolocation. As the author marks, causing effect of a biolocation the field has vector character (the direction of a horizontal component doesn't coincide with magnetic), in indignation changes on 20-30 ° and is characterized by sign presence.

Radiation of live organisms possesses a number of the specific properties which explanation at the given stage causes certain difficulties. Its penetration through metal and other barriers and "perception in any point of a terrestrial surface" isn't. As possible explanation of these phenomena representation about electromagnetic waves with property of longitudinal distribution of electric field can serve. Such waves are observed in environments where conductivity and polarization currents, including in atmosphere proceed..

Studying of the optical phenomena in biofields has revealed alternation of the maximum and minimum activity at an irradiation a hand of a spherical metal mirror (P.Dvorkin, 1977). Improvement of instrument maintenance has confirmed the electromagnetic nature of an induced field (fixing of a diaphragm of an orientation, displacement of maxima on an axis of its main petal at change of full resistance of loading of the aerial used as a reflector).

In live organisms existence of constant potentials with a range from several microvolt to 100 мВ and more is shown, and at the person these potentials are observed in bodies, skeletal structure as a whole and at cellular level. So, contactless methods of search of zones of the raised potential over a body surface are based on registration of electromagnetic fields near to a body of the person. By the way P.Guljaev (1968) believes that the signals written down by it are signals of electric activity of heart. However U.Vasilev considers (1973) reason of occurrence of registered signals indignation of constant electric field of the person existing round a body, mechanical fluctuations of heart.

It is established that the bone forms electric potentials in reply to mechanical loading. Thus the compression area has negative potential, and stretching area – positive. The area of active growth and restoration of a bone fabric has higher negative potential in comparison with less active sites. It was besides revealed that at fresh crises all bone gets negative potential with a maximum in a crisis point. Its size will be in 4-5 times more, than normal negative potential for this bone. In process of healing of crisis the trauma potential decreases, and normal distribution of electric field comes at full consolidation bone fragments. Attracts attention that artificial polarization stimulates healing of a trauma of bones and soft fabrics.

According to one of existing concepts, for occurrence of biopotentials crucial importance has asymmetrical and non-uniform distribution of ions. Such potentials concern diffusive, membrane and phase. Diffusive potentials arise on border of section of two liquid environments as a result of various mobility of ions. Most distinctly last can be shown at mechanical damage of cages when in a damage zone there is a diffusion of ions in the intact sites. In these conditions also arises diffusive potential which is total display of demarcation potential and potential of rest of a bone fabric. As a private kind diffusive potential consider membrane potentials. Thus potentials of rest, damage and action are by the nature in membrane potentials.

With diffusive in potentials the phase potentials arising on border of two immiscible phases as cytoplasm of cages represents multiphase micro heterogeneous system have known analogy. Biological objects generate micro currents as any biological phenomenon is accompanied by electric currents of rather small pressure. Experimental acknowledgement of cellular fields (biofields) was (1923) mitogenic radiation opened by A.Gurvicha's. The last is treated as UV the radiation of a wide range arising at chemical reactions in vitro in live systems and having very small intensity. Nevertheless, it is capable to cause radical changes in biological substrata, causing, finally, such important certificates, as cellular division. A.Gurvich has found out total effect of occurrence of mitogenic radiation with two maxima in the field of 230-320 nanometers, i.e. for the first time hasn't the fact of summation of photons (for example, energy of two photons of simple light is accepted electron and is radiated in UV a range). Thus it is known that energy of ultra-violet photons has enough for rupture of chemical bonds and, hence, to formation of free radicals.

Further it has been established that currents 20-40 mkA, 4-6V provoke mitogenic radiation. It means that influence on a skin of external power factors (for example, atmospheric electricity) can cause reaction of cellular biofields and start system reactions of an organism. As, according to some theorists, its normal functioning is connected with balance of positive and negative charges. It is established that a great bulk of a body of the person (feet and a trunk) as well as the Earth bear a negative charge, and the head and a brain are surrounded by positively charged ionosphere. Thus movement of electric ions in a skin goes mainly from false skin inside that is from negatively charged surface to positively charged deep layers. From this it follows that influence currents should correspond as much as possible to the currents providing biological processes.

The problem differently polar electric initiation of processes of ability to live involves in itself great attention. In physiology of plants it is established that giving in the conditioned chamber of negative potentials in 500-2500B initiates at plants photosynthesis and absorption of carbonic gas, and at positive – their oppression. Presentation of these experiments is reproduction of these processes in biosphere. From physics it is known that the phenomena of atmospheric electricity are extremely various. So, the potential of the Earth before a thunder-storm changes in 1000 times, and on occasion can be transformed and a field direction: atmosphere is charged negatively, and the

Earth – is positive.

In this plan D.Hejlja's phenomenon and works of the founder the Sun of dependent biology of A.Chizhevski which has formulated idea of a direct power exchange between an organism and environment (see further) is extremely interesting.

Today the electromagnetic field is recognized by the carrier of information function in wildlife which consists in information transfer from environment in an organism, information interrelation in an organism and information interchange between separate organisms. From this it follows that the similar organization of live systems and their ability to adaptation can be explained only presence in an organism of functional power information system with the existential organization. As its reception device can act functionally active (acupuncture) of a zone of a skin which possess specific biophysical properties. Thus as the starting power information factor the electromagnetic field of biosphere which is a universal irritant and an indispensable condition of existence of live organisms acts.

Now the biophysical (objective) reality acupuncture zone doesn't cause doubts. They differ from the next skin sites the expressed electrophysiological features: in high local temperature; the raised skin breath (mastering CO); low electric resistance on constant and variable currents (30-250 CoM); in the big electric capacity (0,1-1 mkF); in high electric potential (to 350 mV) and asymmetry of return conductivity. Through zones reality acupuncture the weak alternating current constantly proceeds and are present low-frequency (0,1-15 Hz) the signals which characteristics depend on parameters of external electric field and a functional condition of an organism as a whole.

Last year's ability reality acupuncture zones have been opened to pass light. Thus light of various spectral structures possesses different getting ability. Is better passes white (a mix of all colors), then in decreasing order – red, dark blue and green. The same property superficial functionally active zones found out in plants (edge and middle sheet, a stalk) possess also. But light passage on the bent stalk that adjusts on thought on a reality in live organisms of system of optical paths, or optical fibres became the most amazing!

And, at last, it is possible to refer to A.Medeljanovski's original works (Institute of normal physiology of P.Anokhin of Academy of Medical Sciences of the USSR). The data obtained there shows that «... that weak influences by an electric current, the infra-red laser focused by red and dark blue light ... in the majority of series cause shifts of the major indicators of a physiological condition authentic and differing in character and power steadiness of an organism». The last puts questions on basic features of factors of small intensity...

Factors of small intensity. Basic features. Last year's collects more and more the facts which specify in high sensitivity of an organism to factors of low intensity of the diversified nature: to magnetic fields I string level of a terrestrial field; to weak electromagnetic radiation; to light influence; to weak currents of constant and variable character; to homeopathic doses of chemical compounds, etc. Thus physiological and therapeutic answers of an organism appear much more above, than at use of factors of high intensity (powerful fields, thermal doses not ionizing radiation, high doses of chemical compounds, etc.). The last specifies in a reality of essentially other mechanisms of realization of influence of factors of small intensity. Becomes clear that «the force lack», most likely, is compensated by transformation of the factor of influence in information type of influence.

The orthodox medicine in development of any steady condition (physiological or pathologi-

cal) defines following elements of difficult biological system.

1) Regulation mechanisms (the nervous centers, endocrine glands, bodies of immunity, system of regulation of interaction of processes, etc.).

2) Peripheral elements of realization (smooth muscles, ferriferous structures mucous, limfo - and a blood-groove, etc.).

3) Realization ways (nervous ganglions and trunks, blood hormones, peripheral immunocompetent cages, etc.).

4) Control feedback (the mechanisms of return positive and negative communication supporting a condition of system at stationary level).

On this basis for correction of pathological conditions approaches as which it is impossible to recognize optimum are used.

From the general point of view they can be defined as strong and over strong influences: elimination, blockade, destruction of certain elements of system (corticosteroids, cytostatics, antibiotics); symptomatic – influences replacing by the nature (bronchial spasmolytics, the enzymes which are coughing up). Application and new иммунотропных means and specific allergens which often provoke a polyvalent allergy and other by-effects isn't adequate.

From the cybernetic point of view of cart-action of this kind will essentially lead to development of following conditions:

- To inclusion of new type of influence in a pathological condition (dependence development to a preparation);

- To restoration of a former pathological condition at new level and inclusion of new mechanisms of realization (accustoming development to a preparation, process weighting, development of new symptoms);

- Development of accompanying and collateral pathological symptoms.

Meanwhile there are essentially other possibilities of transfer of a pathological condition on level of other steady condition (normal mutual relations). The following can be the general approaches here:

- Inclusion of additional influence of the regulation essentially manageable, dynamic influence on character and influencing mechanisms of regulation of system (inclusion of supervising feedback);

- Use подпороговых influences on system when the small gradient of influences does their "invisible" to regulation of pathological influences and gradually leads to transition to normal stationary level;

- Use under threshold influences on system when the small gradient of influences does their "invisible" to regulation of pathological influences and gradually leads to transition to normal stationary level;

The modern biophysics, despite rigid resistance of apologists of medicine on the basis of Newton's doctrine, testifies that at the heart of any biochemical transformations (including at genetic level) lies power information a component of an optical range. So, the academician of the Russian Academy of Natural Sciences E.Chirkova proves:

- Signals operating gene activity have the wave nature;

- Albuminous structures of live cages generate иммуноспецифическое radiation in an optical range of electromagnetic waves;

- Nucleonic acids are traps $\Psi\Phi$ of radiation;
- Resonant characteristics ... are inherent in gene structures of cages...

From supramolecular structures the most interesting source electromagnetic (EM) radiations of a different range and capacity is the cellular membrane. Theoretical calculations specify in possibility of generation of coherent radiation in a range of 100-1000 GHz at the expense of currents of action which proceed against membrane potential. Similar values of frequency fluctuations are given by effect of Dzhozefson's in Albuminous structures. Circumrotatory fluctuations of the big molecule of DNA are capable to raise shock waves which are accompanied by fluctuation of charges in the water environment. It causes occurrence of an electric wave that extends as fluctuation of dipoles of the structured water. Thus, thanking электрострикции, the electric wave passes in acoustic and, on the contrary, that besides leads to their combined distribution and has obviously great value for ability to live of cages.

Theoretically in cages real transformation of one type of energy in another (for example, electromagnetic in sound) is possible. So, dipoles of water under the influence of a variable magnetic field are capable to generate fluctuations which extend in the dense environment of an organism as sound. Thus the length of a wave of photons will be on five usages less, than a wave of initial electromagnetic radiation. It is interesting that the sizes of cellular structures make 15mkM – 15nM and are comparable to electromagnetic fluctuation which is capable to create photons with the same length of a wave and frequency 100MGts-100GGts.

Today known and other mechanisms of transformation and interaction energy's in cages:

- Orientation and fluctuation ferri-magnetic particles (are found out in adrenal glands under the influence of a magnetic field);
- Return conductivity a current orientation (it is characteristic for all membrane structures, especially nervous and nervously-muscular);
- The piezoelectric phenomena (change of the linear sizes of DNA, other macromolecules under the influence of electric field);
- A phenomenon N-like volt- ampere of the characteristic of fabrics (connected with membrane transformation of a direct current in electromagnetic fluctuations: estimating frequency 0,5-910 - Hz; it is found out in hemoglobin, albumin);
- Effect of the Hall - electric field occurrence at interaction of a direct current with a perpendicular magnetic field (fibers, integral bacteria, DNA);
- Effect Hannah - transformation of a direct current into high-frequency fluctuations (1-10 GHz);
- Effects of Makats: a phenomenon symmetric asynchrony - time prevalence of bioelectric activity in one of symmetric " acupuncture zones" and the functional system united with them; effect of functionally directed transport of energy carriers which is as much as possible shown between one channel FAZ;
- Photomechanical and a photo magnetic effects...

Doesn't cause doubts that cellular biophysical transformations depend on external power information influence and are directed, first of all, on support of functional dynamical stability.

Today it is known that:

- Biological structures absorb (radiate) energy of electromagnetic waves in the portions (quanta);

- Mitogenic and super weak radiations of live cages concern a visible range;
- Coherent radiation UV of a range is inherent in live cages, convertibility of which spectral structure depends on a phase of a cellular cycle.

And if to admit that chemical action of functional groups is connected with corresponding monochromatic radiation, there are clear paradoxical phenomena of a photo- and a radiobiology, so-called effects of small doses. And it is valid, informative doses UV of radiation of a cage have low intensity (from several tens to hundreds photons on $1 \text{ cm}^2/\text{s}$). At last the modern physics on the basis of the quantum theory and the wave mechanics testifies: the Matter simultaneously possesses corpuscular and wave properties (the dualism phenomenon). And it is valid, informative doses UV of radiation of a cage have low intensity (from several tens to hundreds photons on $1 \text{ cm}^2/\text{s}$). At last the modern physics on the basis of the quantum theory and the wave mechanics testifies: the Matter simultaneously possesses corpuscular and wave properties (the dualism phenomenon).

The ability of water found out by us to generation has forced to consider some problems of a crystallography in a new fashion. So, on a physical condition the majority of structures of a live cage are liquid crystals (nucleonic acids, genes, membranes, DNA - and RNA-membrane complexes). Liquid crystals react change of a phase condition on diverse physical (light, a sound, pressure, temperature, constant magnetic and EM a field) and chemical factors of environment. The nature has awarded liquid crystals with optical activity (the higher, than for liquids and firm bodies).

As vivid example the cholesteric liquid crystals, which sensitivity to temperature (Infra-red range) so high serve that they change the color (a visible range) at change of all on $0,001^\circ\text{C}$. Thus change of a phase condition at least one link of transfer and information reception can change, detain or strengthen the wave information to a gene, thereby influencing cellular differentiation.

In display of liquid crystal properties of a live matter the huge role is played by is false crystal structure of water. Its dipoles are guided corresponding poles round ions and strongly polarizable Albuminous elements. Pseudo the crystal water skeleton of macromolecules promotes streamlining of structure of fibers in a live cage and strengthens their vital signs. In special conditions it remains and after removal of Albuminous structure from a cavity of the structured water that repeats the form of biological macromolecules. Thus the water skeleton is capable to generate the information similar to fiber absent in a cage. Apparently, it causes the paradoxical phenomenon: memory of water of molecules at huge cultivation of solutions.

But thus there is a question on transformation of energy of light in electronic energy. And from this point of view the information of Novosibirsk Scientific research institute of experimental medicine on photoconductivity FAZ in a zone $0,35 \text{ m}\mu\text{m}$ UV (through moving of positive charges with activity 10^{-4} is fixed see g/s) is extremely interesting.

It testifies to synchronization of oscillatory processes of the different power nature that functionally unites an organism and environment in one complete system. Such mechanism should be universal and suitable for realization of functional dependence of an organism from Solar activity, pressure of a geomagnetic field and polarizable Lunar light (it is established that dynamic activity of functionally active zones (FAZ) naturally repeats phase EM Sun and Moon indignations).

The quanta of visible light strengthened by membrane fibers and UV hand over the specific information through functional channels from FAZ to specific cellular groupings of an internal and systems. Thus in their spectra always there is a length of a wave which can simulate a wave of an Albuminous molecule and include (or to switch off) this or that gene. By the way, we will remind that else in 20-s' years A.Gurvich has shown to the first that live cages (hermetically divided by

quartz glass) communicate in UV a range.

Today it is known that on a wave 230-320 nM energy of two photons is accepted electron, radiated in UV a range and is sufficient for rupture of chemical bonds and formation of free radicals. On this background it is necessary to remind of pigmentary formations. Their biophysical features, together with known ability of melanin to stabilize radicals and to take part in electronic transport, testify to biophysical relationship and a power essence of the specified phenomenon. Thus it is not necessary to forget about ability of melanin and rhodopsin to transform energy photons light to electronic energy.

In due time researchers establish-whether that on leaves of plants exist the FAZ, which biophysical features are similar FAZ of the person. And in 1984 the magazine "In the science world" has published the message on vegetative optical paths (at an irradiation of leaves, light reached root FAZ even at the bent stalk). Simultaneously in the works the academician V.Kaznacheev has shown that the irradiation of one of FAZ laser light causes its exit in other, remote zones. Differently, the modern natural sciences are on the threshold of recognition of functional system of biological light guides - power information channels of an optical range!

Well, light is transformed to energy. But today to the physicist the amazing facts of transition of energy in weight and, on the contrary are known. We will consider to begin with dualism (duality) electron. As it is known, molecules consist of atoms, and atoms from electrons, neutrons and protons. Any molecules of the Universe are an infinite variety of combinations of nuclear and subnuclear particles. But what represent itself electrons? In the beginning the XX-th centuries it has been noticed that in some experiments electrons, behave as firm bodies (jump aside one from another at collision). In other experiments electrons, behaved more likely as waves, or light. Known "experiment with a double crack" has shown that same electron, passes through two apertures simultaneously. From the point of view of physics of Newton such it is impossible, after all only waves are capable to pass simultaneously through two apertures.

Today the answer idle time: in borders electron there are two mutually opposite characteristics - energy and substance that is an essence комплиментарности. Electron not simply particle, and not only energy. He really owns properties of a particle and a wave therefore; physicists began to name its wave package. Double properties of subnuclear particles are reflection of interrelation of energy and the substance, for the first time open A.Ejnshtejnom in its well-known formula $E = mc^2$.

It is known that the substance and energy are mutually reversible. It testifies not only to possibility of transformation of substance in energy, but also (theoretically) on the contrary. Physicists yet haven't proved this possibility, but the similar phenomenon was observed and has been displayed on pictures. As R.Gerber in experimental nuclear installations highly power photon of light of a space beam testifies, passing near to a heavy atomic nucleus, is transformed to pair mirror particles. That is energy became substance! By the way, recently physicists have assumed that an internal nuclear particle (in particular electrons) actually is interferential power grids. Such theory of the power nature of substance gives the new grounds for reflections ...

Recently ITAR-TASS has transferred; scientists of the Massachusetts technological university have opened the new phenomenon of transformation of heat to the public and, on the contrary. What does it promise? Except many other things is transformation of x-ray radiation on a radio emission.

Promising opening have made by means of the device under the name "a photon crystal". It consists of many layers of the special materials capable simultaneously to pass beams of one spectrum and to beat off beams of another.

Using methods of computer simulation, scientific have come to a conclusion: if to give to a crystal the necessary form and under certain conditions to pass through light, last as if gets to a trap and can't escape from it. It starts to beat off from internal walls of a crystal and, having made about 10 thousand "chaotic reflections", sharply... from-chang the spectrum. We will tell, from red on dark blue, or turns from visible on the infra-red. Scientists believe that opening will give the chance to increase efficiency of solar batteries, will help to create more perfect fibre-optical systems, and also will be used in medicine. With its help it will be possible to generate терагерцовые ??? beams which (being much more safely x-ray) can be used for reception of pictures of an internal and bones of the person (the Scientific world, 1, 2004).

As it was already mentioned, from physics it is known that the phenomena of an atmospheric electricity are extremely diverse and consequently negative potential of the Earth (atmospheric - positive), and behind it and potentials of biological systems can change. So, before a thunder-storm its change reaches 1000-fold value, and the field orientation is on occasion transformed also: atmosphere is charged negatively, and a surface of the Earth - is positive. Interesting the phenomenon of Hejl's (1973) according to which at constant polarity of terrestrial poles polarity of solar hemispheres changes from one 11-year-old cycle to another in this respect is. As consequence, terrestrial ЭМ the phenomena of solar activity change from a cycle to a cycle, causing opposite change of polarity. Doesn't raise the doubts that the similar phenomena directly influence the person which body (the bottom extremities and a trunk) as well as the terrestrial surface bears on itself a negative charge, and the head and a brain are in positively charged ionosphere and bear on itself positive charges. Thus movement electrons and ions through a skin mainly goes from its surface to depth, that is from negatively charged false skin to positively charged subject fabrics.

In physiology of plants it is established that at giving in conditioning the chamber of negative potentials in 500-2500V, absorption by plants of carbon and intensity of photosynthesis increases, and at on-summer residence the same positive potentials - proportionally decreases. Value of the specified supervision consists in display of electric processes of biosphere. It is necessary to notice that in L.Chizhevskij's domestic science there was for the first time experimentally it is proved a hypothesis about influences of factors of space energy on function and ability to live of biological systems. Developed by it in the thirties гелиобиология has been comprehended and understood only with the beginning of space flights and became base idea of a direct power exchange between a live Matter and environment.

Existence of biological systems depends also on a geomagnetic field (GMF). Its distribution near to the Earth to similarly distribution weeding round a homogeneous magnetized bullet, with the magnetic moment of $M = 8 \cdot 8 \cdot 10^{14}$ electromagnetic units (emu.) and an orientation to $10, 4^0$ geographical axes of the Earth. The full size of magnetic field H changes from 0,60 (oersted) on poles to 0,30 on equator. Besides, really exist also longitudinal asymmetry, non-uniformity of a field of northern both southern hemispheres and the considerable regional features dependent on magnetization of rocks (around Kursk anomaly pressure of a magnetic field reaches 1,4e).

The body of a geomagnetic field (GMF) is made by electric currents of external sphere of a terrestrial kernel. They are induced as a result of conversion of its components in a primary weak magnetic field. Global fluctuations GMF with the period from tens to hundred thousand years which are accompanied by change of polarity (inversion) are proved. Last inversion by some calculations took place 0,8 million years ago. Daily variations GMF depend on activity of the Sun, the Moon and the ionosphere electric currents induced at heights of 7-17 km as a result of movement of ionized

air. They not-are considerable on amplitude (nearby 30-40 * 8-4e.) and naturally change with a geographical latitude and a season. During magnetic exaltation activity GMF grows and reaches considerable amplitude (0, 01-0,03e. In high widths) and speeds of change (8-4 o/seconds).

The general energy of a storm can reach 8-13-14 erg, and an energy stream - 88 erg/seconds. But, despite insignificant power, influence GMF on terrestrial life is proved and characterized as extreme on force that, by the way, naturally brings an attention to the question on studying of mechanisms of its action. There was an understanding that high sensitivity of biological systems to weak and super weak GMF is caused by its informative value for wildlife.

Separately there is a question on functional power information dependence of biosphere from a phase of Lunar activity. Some laws found out by us (including hour arrhythmy) for the present have no correct explanation and haven't interested experts. But there is clear a following, power information interactions, acting as the factor of the higher reality, have appeared more difficult, than the studied ware processes and yet not realized sufficiently. In fundamental understanding the power information condition of the Matter displays the matrix prolonged program. The similar condition isn't localized, simultaneously covers considerable space and unites the local ware structures not capable to independent interaction as a result of the corpuscular nature (by the way, interaction of corpuscles always is interaction of these or those power fields).

Thus, the human body is considered today as a difficult complex of multidimensional systems thin энергий. Thus under thin energy recently open fifth component of an existing physical reality - information means. She objectively specifies that the fabrics which have formed physical forms, support existence not only by means of chemical substances, but also at not-mediocre participation high-frequency энергий which give to the physical form viability and creative self-expression.

In due time the quantum physics and research of particles high energy's have shown that at their level all substance inherently is energy. And today astrophysics have found out and have told the certain immaterial substance conditionally named "a dark matter" (the Scientific world №6, 2005). It not only penetrates and fills all Universe, in particular and our bodies, but forces billions galaxies to move every which way with acceleration! If a feather-count this energy in weight it will appear that on a share of dark energy is necessary approximately 2/3 all weights of the Universe accessible to supervision. Immaterial it is considered because unlike the Matter known to us its structure doesn't include protons, neutrons and electrons - in a word all of what the habitual surrounding substance consists. If to add that about 1/3 Universes with concentration in so-called to "the latent weight" (that directly doesn't affect in supervision) that leaves that the particle of the material world makes about 4 % of weight, that is approximately 1/25 that actually fills the Universe as a whole.

Until recently was considered that its great bulk is concentrated in stars. Now it is found out that on all stars with their planets it is necessary only 1 % of a world substance... It has differently appeared that the universe material only on 4 %, and the others of 96 % is not physical, not a material substance that remained outside of our knowledge! What is such scientists can't tell, but while one conclusion arises: the Universe in the basis isn't material!

Considering power influence as the biophysical information we will notice that under its laws it should be natural, material and specific. Thus from the point of view of cybernetics the information component is level of management of system and causes laws of its functioning and evolution.

From here probably to draw some conclusions.

1. Processes of dynamical stability of functional systems should be considered from the point of view of the general laws of the nature, first of all their electromagnetic openness and ability to self-preservation.

2. Influence components are necessary for activation of biological systems adequate to their biophysical features.

3. Mechanisms of information control (paradoxical reactions) provide coordination and dynamic stability of a vegetative homeostasis. They are realized by the power information system consisting of FAZ and channels of directed transport of energy carriers.

4. Functional integrity of an organism is provided with interaction of type "information-energy-information" on which coordination of levels of control (about it depends the physiologic changes caused by factors of small intensity) testify.

Here again there is nothing strange, after all according to theoretical representations insufficiency of influence is compensated only by value of its information. Thus for reception of controllable results it is necessary:

- To provide biological object (body, system) with the long power information background corresponding to its biophysical norm (only provided that the information signal becomes clear and apprehended in a condition of a functional pathology);

- Information influence should correspond to a stage of the pathological process, to the chosen power factor and to be as much as possible simple (meaning basic hierarchy of difficult systems).

Thus it is necessary to pay attention to secondary character of the majority of pathological processes which disappear at correction of leading rhythms.

And, at last, the following.

- Any biosphere's processes (including at biological level) are difficult and mutually caused (the Nature demands unity).

- Control and regulation of difficult processes demands essentially simple control facilities (similar "yes-is not present; 1-0").

- Management factors as biophysical signals, should be clear for a live Matter.

- A principle of existence of any system is the dynamical balance of factors of support, regulation and destruction (in different forms of activity).

- Infringement of base laws of the Nature conducts to destruction of any system.

- At the arisen threat, the Program Live will prefer "part destruction, for the sake of preservation Whole" ...

Conclusions. Above stated logically proves the following.

1. The directed transport of energy carriers in system "the external closed contour = electrode DE = FAZ - electron the spent channel - FAZ = electrode AE = the external closed contour" most corresponds to requirements to information factors of small intensity.

2. The directed transport of energy carriers is proved by a contact difference of electrode potentials with FAZ and is most adequate to level of membrane potentials.

The literature.

1. Макац В.Г., Подколзин А.А., Донцов В.И, Гунько П.М.Старение и долголетие. Теория и практика биоактивации. Часть 1 // Винница, 1995, 253С.
2. Бобров И.А., Готовский Ю.В., Мхитарян К.Н. Традиционная акупунктура с точки зрения современных теорий физиологии, патологии и терапии. Сообщение 1 методология традиционной акупунктуры в свете современной теории функциональных систем // Рефлексотерапия.-2003.-№ 1(4).-С. 14-20.
3. Василенко А.М. Элементы современной теории рефлексотерапии // Рефлексотерапия. -2002.-№3(3).-С.28-37
4. Василенко А.М., Черныш И.М., Гуров А.А., Соколова Т.Е. Концепция электромагнитного гомеостаза и принцип «биорепер» в электропунктурной диагностике // Рефлексотерапия.-2003. №4(7)-С.12-14.
5. Василенко А.М. Концепция интегрального регуляторного континуума – основа современной теории рефлексотерапии // Рефлексотерапия.- 2007- №2(20).- С. 5 - 8.
6. Макац В.Г., Нагайчук В.И., Макац Д.В., Макац Д.В. Основы биоактивационной медицины (открыта функционально-энергетическая система биологических объектов) // Винница.- 2001.- 315 с.- ISBN 966-7993-16-7 (на украинском языке)
7. Макац В.Г., Макац Е.Ф., Макац Д.В., Макац Д.В. Энергоинформационная система человека (ошибки и реальность китайской Чжень-цзю терапии). // Винница.- 2007.- Том 1.- 367 с.- ISBN 966-8300-27-0 966-8300-26-2 (на украинском языке).
8. Макац В.Г., Макац Е.Ф., Макац Д.В., Макац Д.В. Энергоинформационная система человека (биодиагностика и реабилитация вегетативных нарушений). // Винница.- 2007.- Том 2.- 199 с.- ISBN 966-8300-27-0 966-8300-28-9 (на украинском языке).
9. Макац В.Г., Макац Е.Ф., Макац Д.В., Макац Д.В. Энергоинформационная система человека (вегетативная биодиагностика, основы функционально-экологической экспертизы). // Винница.- 2009.- Том 3.- 175 с.- ISBN 978-966-2932-80-5 (на украинском языке).
- 10.Макац В.Г., Макац Д.В., Макац Е.Ф., Макац Д.В. Тайны китайской иглотерапии
- 11.(ошибки, реальность, проблемы) // Винница.- 2009.- 450 с.- ISBN 978-966-2932-80-5.
12. Makats V., Makats D., Makats E., Makats D. Power-informational system of the person (biophysical basics of Chinese Chzhen-tszju Therapy). // Vinnitsa. 2005. Part 1. 212P. ISBN 966-821-3238.