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VALENTIN G. SHIRONOSOV , *et al* Activated Microcluster Water

Phenomenal enhancement of healing, plant growth, food preservation &c with Activated Microcluster Water



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"IIS-RT"-1997. Collection ?22

Resonance in physics, chemistry and biology.

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---- The resonant problems in different areas of physics, chemistry and biology from the unified point of view - extremeness of resonant statuses of motion in the nature are reviewed. In particular, the problems of dynamics of motion and holding of atomic, macroscopic particle, micro-organisms in inhomogeneous fields, outside and inside resonance conditions are analyzed; problems of dynamic stability of unstable states, bifurcation, chaos, discretization, evolution of non-linear dynamic systems which are not inclusive in an obvious view a small parameter. A fundamentals of the resonant theory of dynamic systems are set out. The unsolved problems are marked and the paths of their solution are planed, in particular: ball lightning, activated water, resonant effect of superweak fields at biological systems, including correlation between periods of solar activity and processes happening at this time on the Earth.

The foreword.

---- This book has arisen as outcome of the numerous lectures and seminars, in which one I attempted in the understandable form to set out an achievements of the different explorers, in the most different spheres of activity at unified object of our research her Majesty - Nature. The contents of the book was finally made after I had in a winter semester 1999/2000 to read a course of the lectures for the students-biophysicist of physical faculty of the Udmurt state university. . The noticeable place in the book takes a phenomenon of the resonance which has permitted to realize unified connection of phenomena, diversiform ambient and diving through us. Moreover, I and my employees in a lot of cases have could to influence "development of events" in this area.

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"IIS-RT"-2008. Collection # 43-1

High quality water production: analysis and perspective

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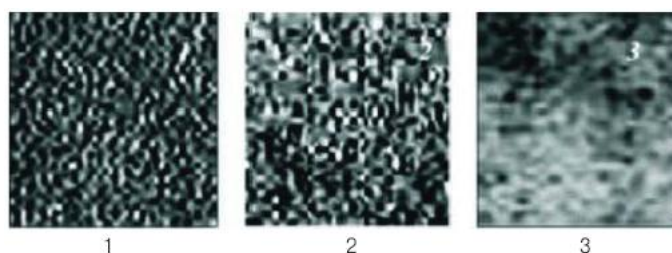
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 Ecology and the industry of Russia, Moscow, 2008, p. 4-7.

Nowadays there are a number of methods of drinking water quality determination. The main water characteristics are its chemical composition and purity. However it turns out that even pure water has very complex structure and properties. Drinking water standards do not reflect the most essential water property- its biological beneficial effect. That is why regular water we drink is not good enough.

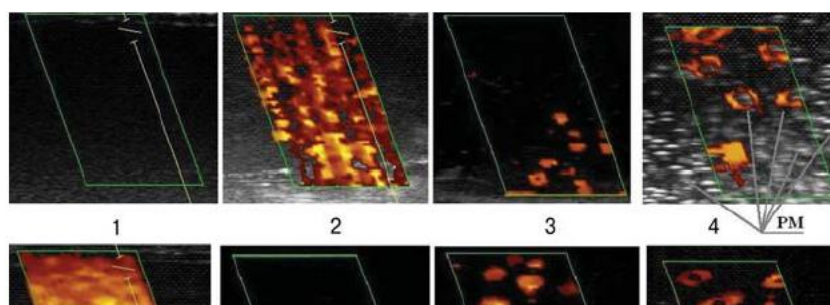
During the last decades scientists are getting more interested in water, as water is a unique liquid. Numerous experiments results show that existing methods of water properties investigation do not satisfy requirements. They do not include a number of water parameters that actually characterize water beneficial properties and biological activity. Physiological water properties are determined not only by its chemical composition and the process of its purification, but also by a number of interrelated physical parameters which characterize water as a complex structured system in a non-equilibrium thermo-dynamic state. This system has a microcluster structure and become a source of emission (Figure 1) [1].

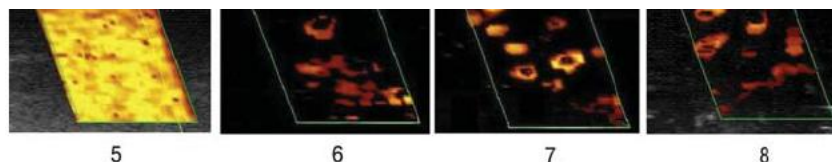
Figure 1. Microclusters (0.01-0.1 mm) in water solutions: 1 - distilled water, 2 - natural mineral water, 3 - 70% alcohol solution.



Water activation is the process of water transfer into a non-equilibrium thermo-dynamic state, accompanied by change of water structure. Water acquires resonant microcluster structure. There are number of methods of water activation (physical, chemical, biological, etc) -Figure 2. 1-3 solutions were activated by means of the device "Izumrud-SI" (mod.03). The solutions 1 and 2 were received by means of flow-through devices for anolyte and catholyte production (1:1). The solutions 4-5 were activated by means of the device "Izumrud-SI" (mod.04). The solution 4 was contact activated by means of electrolysis, the solution 5 was non-contact activated by means of electrolysis. The solution 6 was non-contact activated by means of ultrasonic scanning. The solution 7 was activated by means of ultraviolet radiation. The solution 8 was activated by means of gaseous fractions formed in the result of a reaction between Al and HCl solution. Activated water has a high physicochemical and biological activity.

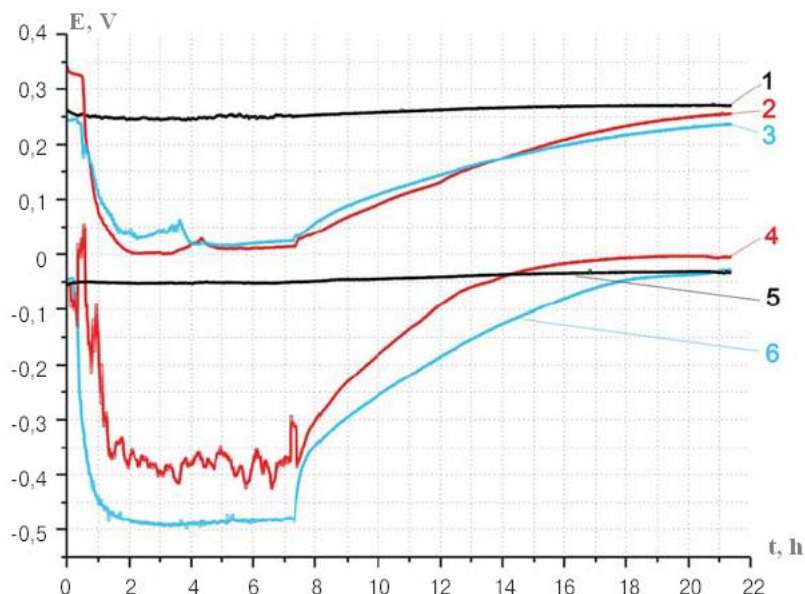
Figure 2. Microclusters (5-25 mm) in water solutions: 1 - anolyte acid solution; 2 - catholyte alkaline solution; 3 - anolyte neutral cathodic; 4 - 0.3% Na₂CO₃ water solution; 5 - distilled water; 6 - vodka "Sarapulskaya"; 7, 8 - distilled water.





One of the most essential drinking water parameters is water "charge", that is water RedOx. Silver-chlorine electrode was used as an auxiliary electrode for RedOx measurement. RedOx water in these conditions should be negative and pH should be neutral, since RedOx of human body cells is ≈ 770 mV. When RedOx of cells is different from the norm, people contract diseases. Investigation data (Invention application RU 2007127132, RU 2007127133; Patents RU 2299859, RU 2316374) show that **RedOx is a general parameter reflecting drinking water structure and biological activity**. RedOx can vary even if pH remains unchanged. RedOx and pH anomalies [2,3] do not contradict Nernst equation. It actually reflects the fact that Nernst equation is not universal and can not be applied to every case. It also reflects peculiarities of non-equilibrium environment parameters measurement (Figure 3, during our experiments electromotive voltage of signal - E was changed by the method described in Invention application RU 2007127132).

Figure 3. Dynamics RedOx (1-3) and E (4-6) samples of distilled water (1, 2, 4, 5) and of infusion solution (3, 6): 1, 5 - control samples; 2, 3, 5, 6 - activated non-contact by electrolysis without diaphragm in an interval $t=0-6,7$ h.



Anomalies of pH and RedOx of non-contact and contact activated water can easily be explained by the fact, that stable high-energy resonant microclusters form on the base of covibrating dipoles (water molecules, OH-) near anode and cathode [2-4]. In a static state such dipole systems are not stable (collapse effect), but in a dynamic state there is a stabilization effect. Alternating field formed on the base of two covibrating in antiphase dipoles has a narrow frequency range (resonance effect) and becomes narrower at the rate of $1/r^4$.

The anomalous properties of activated water solutions (such as relaxation period, non-contact activation effect, cluster structure existence period- Figures 1 and 2, opportunity to predetermine and control mineralization degree, homeopathy) can be explained by high-quality microcluster structures ("molecular tuning forks")- $Q \sim 10^{13-23}$. Regular drinking water ($\text{RedOx} > 0$) penetrates into human body tissues and takes electrons from cells that consist of water by 80-90%. In the result of that biological structures of the human body (cell membranes, organoids, nucleic acids, etc) are destroyed by oxidation processes. That is how body gets older, essential organs cease to perform their functions, immunity decreases.

Melt water in mountains have microcluster structure and a negative charge due to triboelectricity, transconformation and phase transition. Drinking water with a negative RedOx is easily assimilated by human body. It gives its charge to human blood and compensates a negative cell charge. For example, we found out that if mice that if mice are treated with a lethal dose of X-rays and then given water with $\text{RedOx} = -450$ mv, their death rate decreases from 96% to 10% (in comparison with the control group of mice, that was given regular de-activated tap water with a positive RedOx).

As a rule, a negative water RedOx lasts not longer than 24 hours, that is why it is recommended to prepare such water or live near mountain springs with 'alive' water.

In 1990 Kiselev B.I. discovered a method of **water solutions non-contact activation by means of laser, magnetic or sonic field (Patent 1827274 USSR)**. He proved for the first time that it is possible to make water biologically active for some period of time by means of physical methods. Clinical tests show that **activated water solutions can be used as immunostimulant remedies, therapeutic and prophylactic agents, since they do not have any side effects. Oral introduction of activated water solution (during 60 days) is less effective than infusion introduction (10 days).**

In 2000 microhydrin (nanocarbon) was discovered. They called it "longevity tablets". One tablet per a glass of water, milk or coke shift liquid RedOx from +300 mV to -300 mV which is much more than fresh carrot juice RedOx (-70 mV). Microhydrin is one of the most effective antioxidants, but unfortunately, 1 liter of such water is rather expensive \$4. Later Dvornikov V.M. created a beverage "Vashe Zdorovye" (Patent RU 2234945) which can retain negative RedOx during 6-12 months. As test had shown, the beverage has marked immunostimulating properties and can be used as effective therapeutic and prophylactic agent, but is quite expensive- \$6/liter.

One of the important water parameters is its mineral composition. Ca^{++} , Mg^{++} , J, Se bulk ions deficiency in water cause a number of diseases. There are few springs which have water with microelement and ion content which comply with Russian Healthcare Organization standards. Some of these springs are situated in Sarovo area.

Calcium and magnesium deficiency can lead to hypertension, heart ischemia, osteochondrosis (even in 1.5 year old children), osteoporosis, incorrect posture, intelligence and memory decrease, quicker bilestone formation and stone formation in urinary tracts, tooth decay, alopecia

etc. Ca and Mg ions are essential for normal development and health. They are especially important for children, women during pregnancy and breastfeeding, aged people.

The tests show that there are just a number of unique springs with water with such properties and composition that this water comply with the demands for healthy life. As a rule, these springs are situated in mountains. So what can people do if they mostly drink regular tap or bottled water?

In the course of history, two methods of water production were created.

The first method is more widely-spread and cheap. It is based on water purification and decontamination up to standards of the particular region. This method allows to preserve necessary mineral substances and to produce cheap water - \$0.0001-0.001 per liter.

The second method was considered to be affordable only for some people. It allows to produce high quality clear water by means of reversed osmosis or electrodialysis and the following mineralization (addition of mineral compositions, substances and gases). Now the reversed osmosis technology is getting less expensive and more widely-spread. It will allow producing cheaper and more affordable water.

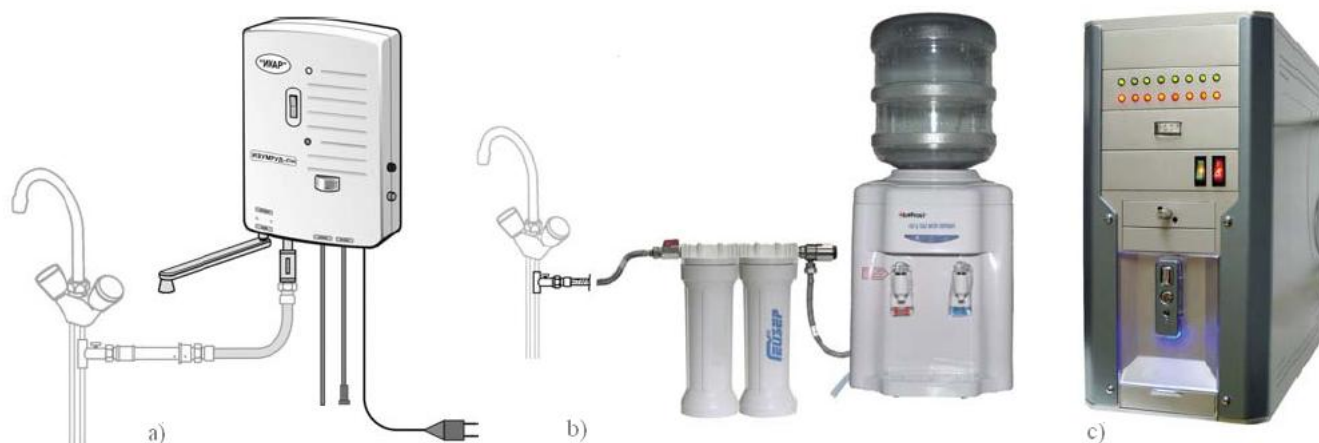
Reversed osmosis devices are usually advertised as next-generation devices for high-quality water production. But it is proved that because of the reversed osmosis devices water becomes:

- distilled (demineralized);
- deionized (oxidated), since water RedOx is positive in comparison with silver chloride electrode (200-400 mV);
- water structure retain information about pipes covered with slime and dirt; it is especially dangerous for people with low immunity.

Such water is not good enough for drinking.

New unique Russian technologies, patented devices and methods allowed creating next-generation devices for production of high quality water (on the base of FTR-3 (Flow-Through Reactor, Figure 4) and extra-high quality water (by means of Faraday screen) with resonant microcluster structure (Figure 5). Such devices can also control water parameters during water production.

Figure 4. Device "Emerald - SI" (mod. 01) for reception of the drinking activated high quality water with the given mineral structure and antioxidant properties properties: a - household, b - office, c - industrial.



Now the device "Izumrud-SI" (mod.01 os) has no analogues (Figure 5).

The new approach is based on three main stages: pure water activation, the following mineralization and properties control. The offered device (Faraday screen, Patent 2299859) allowed to boost efficiency of water activation and electrical safety and to lower power inputs. Water mineralization was performed by means of unique Russian mineral composition "Severyanka++" containing Ca^{++} , Mg^{++} , J, Se ions.

The device has integrated controller, flow-type sensors with two-level indication system - reversed osmose processes monitoring (purification), activation monitoring (water ionizing), water mineralization (mineral composition optimization). The integrated controller and twin indicator lamps (green and red) perform sensors monitoring and signal if any disrepairs happen. Three light indicators regimes: 1) green, 2) flashing (green/ red), 3) red, which tells that filters or mineral additive should be changed.

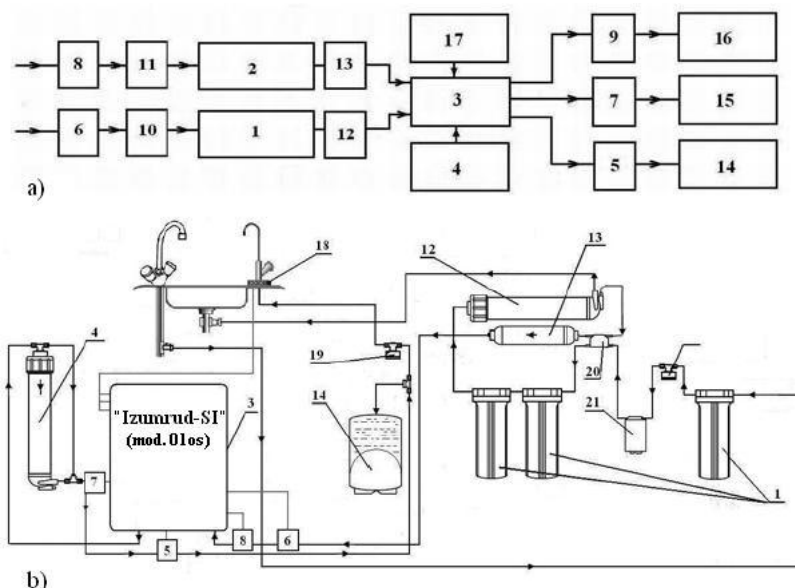
Figure 5. Device "Emerald-SI" (mod.01 os) for production of extra-high quality water with the set mineral composition and antioxidant properties.



Water and water solutions cost depending on "Izumrud- SI" devices performance: \$0.004-0.008/liter (mod. 01), \$0.008-0.08/liter (mod. 01 os).

The devices can be used in different spheres of science and engineering when intensification of the processes is needed by means of activated high-quality water solution production with predetermined composition and properties.

Figure 6. Block scheme (a) and principle scheme (b) device "Emerald-SI" (mod.01 os).



The device can be applied for creation of new class of condensed substances (solid substances, activated solutions and beverages). Block scheme of the device "Izumrud-SI" (mod. 01 os- Figure 6a) includes purification subassemblies 1, 2, electroactivation subassemblies 3, mineral composition controller 4, sensors 5, 6, 9 for control of water properties (activation degree, pH, RedOx, temperature, dielectric capacitivity, conductivity etc), sensors 7 and 8 for liquid composition control (mineral elements, substances). The sensors 5, 7, 9 are on the system output, sensors 6 and 8 are installed in front of the purification subassemblies. If necessary, one can also install water disinfection subassemblies 10 and 11 (Figure 6a), fine filter 12, degasifier 13, tank for activated liquids 14, liquid heater 15, liquid cooler 16, one or several ultrasonic activators, high-pressure switch 19, low-pressure switch 22, automated cut-off valve 20 and pump 21. Fine filters 12 and degasifiers 13 can be standard membrane devices- on the base of osmotic, track, selective or hollow fibers membranes, on the base of vacuum or ultrasonic deaerators or on the base of both. Tank for activated liquids 14 can also have pressure and temperature maintenance system.

This technology is aimed at liquid quality and treatment efficiency increase, at water parameters control, at **preventing electrode overgrowing with cathode depositions. It prevents diaphragms from clogging.** The technology allows to expand operational options and to make the device user-friendlier and easier to maintain.

Tap water always was and will remain process water, unless the offered technology is used. This is said in new State Standard. Low water quality is explained by water treating facilities condition and water chlorination technology that is widely used and other factors. Now there are two ways out: first, to produce bottled water, second, to treat tap water by means of regular water purifiers or purifying installations.

The "Izumrud" electroactivation devices can produce 100-2000 tons of water depending on tap water quality. The main advantage of this technology over bottled water production consists in the quality of produced water - **it is ionized and has RedOx and pH close to that of melt water and human body.** The project creators hope that if one distinguishes drinking water and process water it will help to solve numerous problems of water supply and to increase average life expectancy.

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Activated liquid (useful links)

http://ikar.udm.ru/c_n_aw.htm

<http://ikar.udm.ru/sb/sb17-4e.htm> - Adaptive treatment method (artificial biofield source in medicine);

<http://ikar.udm.ru/sb/sb45-3e.htm> - Water - a source of biological and electrical energy;

<http://ikar.udm.ru/sb/sb38-4e.htm> - Non-contact activated infusion solutions as applied to prophylaxis of postoperative pancreatitis of oncopatients;

<http://ikar.udm.ru/sb/sb43-3e.htm> - The Treating of Patients in U.S.A. using Anolyte, Catholyte and Non-Contact Activated Liquid (NAL);

<http://ikar.udm.ru/sb/sb46-1e.htm> - Open seminar professor Ashot Khachatryan in Singapore;

<http://www.ikar.udm.ru/pr-1.htm> - Non-contact activation of liquids (infusion solutions and drugs, drinks, tea, coffee, drinking water, including tubs, swimming pools, an intensification of biotechnology, the extension of the deadline life);

<http://ikar.udm.ru/sb/sb43-1e.htm> - High quality water production: analysis and perspective;

Hi-tech from Russia - Download video: water_rtv_090406 - Excerpts from the TV program "The great secret of water" (www.rutv.ru, 09/04/2006);

http://ikar.udm.ru/files/video/tv_080210_ru.mp4 -- Udmurtiya pure water (43 Mb) ;

http://ikar.udm.ru/files/video/levit_ikar.mp4 - Levitation - is simply (0,7 Mb);

http://ikar.udm.ru/files/video/cluster_ikar.mp4 - Solitary vortices - clusters of activated water (0,2 Mb);

http://ikar.udm.ru/files/video/ikar_activ.mp4 - Activation of water (16 Mb);

http://ikar.udm.ru/files/zip/rusnano_08.zip - Presentation Icare "on the International forum on nanotechnology, Moscow, 3.12.2008-5.12.2008 (~40 Mb);

http://ikar.udm.ru/i-si-04_uni.htm - Universal Device for contact and non-contact activation of liquids (won prestigious international awards - gold, Switzerland).

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Noncontact electrochemical water activation experiments

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The II International Symposium "Electrochemical Activation (ECA) in medicine, agriculture economy, industry".
?: October 28-29 1999, p.68.

Results of the water ECA experiments are given. Simple model, explains the noncontact activation, are suggested. Electrochemical activation, theoretical physics.

---- The noncontact electrochemical water activation phenomenon (CAW) was theoretically predicted in 1992 on the base of substantial field physical theory by I.L. Gerlovin [1]. Noncontact ECA experimental results was published by V. Bahir in 1992 [2].

---- Hermetically sealed thin-walled capacitivities (ampoules or capsules), or a polyvinyl chloride tube (PVC, diameter - 3 mm, thickness of the wall - 1 mm) with physiological solution was placed to the work chambers of (anodic or cathodic) electrochemical diaphragmal activator. As a rule, **activation of the ampoules was conducted for 30 minutes** by switched on current or by current switched off immediately before placing of the capacitivities with physiological solution to ECA mediums.

---- After 30 minutes of noncontact activation results to the solutions in the ampoules was [3]:

Table.

Parameters	Initial				
physical sol.	Anolyte	Catholyte	D LA C:off		
D LA C:on	D GA C:off				
D GA C:on	D FA C:off				
D FA C:on	D LC C:off				
D LC C:on	D GC C:off				
D GC C:on	D FC C:off				
D FC C:on					
??	6,7±0.2	1.1	11.5	-0.8±0.1	
	-1.3±0.1	-0.2±0.1			
	-0.5±0.1	0.1±0.2			
	0.2±0.15	0.5±0.2			
	0.8±0.2	0.2±0.15			
	0.4±0.2	-0.4±0.1			
	-0.2±0.1				
ORP, ??	260±5	1135±15	-845±5	110±10	
	150±7	31±8			
	30±5	-80±5			
	-130±4	-490±7			
	-560±10	-280±5			
	-370±6	23±7			
	30±10				

---- where, D LA current:off = ??(ORP)la C:off-??(ORP)initial ph. sol.; L,G,F - matherial of the ampoule (lavsan, glass, fluoroplastic); ? - anolyte activation, C - catholyte activation, C:off(on) - activation by current swithed on(off) immediately before placing the capacities with physiological solution to ECA mediums.

---- In that way, after exposition of hermetical ampoules with the physiological solution in anolyte or in catholyte, the results ?? and ORP of physiological solution was materially changed; it could be regarded as displaying of the noncontact ECA. The effect is the same when the electrolizer is switched on or when it is switched off. Anolyte and catholyte are influence on the physiological solution though the glass, lavsan

and fluoroplastic. By that, the direction of the pH and ORP changes corresponds (for the glass and lavsan) to sign of electrochemical processing (anodic or cathodic) and inverts for the fluoroplastic. In 2 hours after ECA, the pH and ORP results are relaxing; it is the evidence of electrolyze stable products unpenetration into hermetically sealed thin-walled capacities. Therefore, **noncontact ECA passes on an energetic level without any attendant transport (mass exchange) of ions** through the ampoules wall[3].

---- We conducted complementary experiments for elucidation of the noncontact activation phenomenon nature.

Experiment 1: Hermetically sealed thin-walled polyethylene packets (thickness of the pellicle ~0.1 mm) with distilled water placed into a work cathodic chamber of the electrochemical activator "Espero-1". Activation was conducted with a diaphragm and without it for 30 minutes by switched on current. The results are in the table 1.

Table 1.

Parameters	Initial distilled water	medium			
cathod with diaphragm	cathod	medium	without diaphragm	Dpacket with diaphragm	Dpacket without diaphragm
??	7.2±0.2	10.7	7.6	-0.4±0.2	-0.4±0.2
ORP, ??	264±5	-873±5	-460±5	-364±20	-384±20

----where, D pac with diaph.=??(ORP)pac. without diaph.-??(ORP)init. dist. water

Experiment 2: Hermetically sealed thin-walled polyethylene packets (thickness of the pellicle ~0.1 mm) with distilled water placed into cylindrical food aluminium and plastic capacitys (dalum14=14 sm, dplast14=14 sm), filled with catholyte. Catholyte (??=13.5, ORP = -950 ??) was received on the "Emerald-Si" unit. Activation was conducted for 30 minutes in fresh-made solutions. The results are in the table 2.

Table 2.

Parameters	Init. dist. water	D alum14	D alum+polyeth14	D alum+tefl14	D alum14+plast	D plast14	D plast+foil14
??	7.5±0.2	-0.3±0.2	0±0.2	-0.8±0.3	-0.4±0.3	-0.4±0.3	0.3±0.3
ORP,??	289±3	-749±10	-245±10	-301±10	-175±10	-165±15	-280±15

---- where, D ? =??(ORP)?-??(ORP)init. dist. water, alum+polyeth14 -catholyte was filled into a thin polyethylene packet (~0.1mm), wich was close-adjointed to aluminium capacity walls, alum+tefl14 - aluminium capacity with a thin-walled teflon cover, alum14+plast - catholyte was filled into a plastic capacity (thickness of the wals ~2 mm) and placed into an aluminium capacity-alum14, plast+foil14 - the thin aluminium foil was close-adjointed to the plastic capacity walls.

Experiment 3: Dielectrical vessels with anolyte and catholyte(V = 100 ml.), were prepared on the "Emerald-Si" unit by $V_a=V_k=5$ l/hour, placed into micro wave field ($\epsilon = 1$???, $n=2.4$???) for 1 minute, after that its parameters were measured. Measuring of the parameters and heating of the anolyte and catholyte was simultaneously conducted for 1-2 minutes in the water bath. The results are in the table 3.

Table 3.

Parameters	Initial solutions	Micro waves	Heating			
anolyte	catholyte	anolyte	catholyte	anolyte	catholyte	
??	3.9	12.4	3.0	13.1	2.7	13.0
ORP,??	1108±10	-960±10	1093±10	-253±10	1085±10	-928±5
?, degree ?	22±0.1	22±0.1	50±2	50±2	50±2	50±2

The experiments permit to draw some conclusions:

The noncontact electrochemical water activation are to be observed by small thickness of dielectric partition (mm and less) and depends from a material of the partition; by that, CAW, in anodic and cathodic chambers, has a different sign of D ORP (table) for the same material partition;

CAW takes place as for ECA water with diaphragm as for ECA water without it (table 1);

DORP increases by activation in a metal capacity, or in a metal capacity with a thin nonconductive dielectrical cover (table 2)

Nonthermal influence effect of microwave field to the catholyte (sharp decreasing of ORP table 3).

---- Anomal properties 1-3 phenomenon of noncontact electrochemical activation can be simply explained by origin of high energetics steady resonance systems from oscillating water difields, - (two and more) near the anode and cathode [4-7]. In statics such systems from difields are not steady (collaps effect), in dynamics, by resonance, a dynamics stabilisation unsteady condition effect displays though [5-7]. Variable electromagnetic field from two synchronously-oscillating difields (SAD) [6] has a narrow frequency spectrum (resonance effect and decrease ~ $1/\sqrt{6}$. Maximum of the spectrum, possibly, belong to microwave diapason, because, for ??- typical frequencies of rotation transitions ~2 ??? (length of a wave $l=18$ sm). Therefore, **contactless activation can to be origin only from thin walls**, close by SAD, and depend from spectral properties of material-partition. Amplification of CAW in metal cylindrical form capacities can be explained by amplification of active microwave field by means of reflection from the conducting surfaces (microwave resonator effect). It should be expect amplification of CAW by the sizes of capacityes ~1 ?, $l \approx 2$.

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Physical Basics of Water Resonance Activation.

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First International Symposium "ElectroChemical Activation in Medicine, Agriculture, Industrial"
The collection of the reports M.: 1997, p 220 (in Russian)

Discussing questions about water activation on level of molecular structure.

Proposing to use water activation by short wave resonance irradiation.

---- Simplicity of production and storage relatively harmless action on living organism activated water produced by technology of electrochemical activation (ECA) provided its wide use in different spheres and technologies.

---- Water activation in general is conducted with adding diluted solution of salt. During process of flowing through anode chamber in ECA every microvolumetric salt solution comes into contact with surface of anode, where appears in high intensity electric field. As a result, solution exposed to strong electron - acceptor influence and inside of the solution synthesize active substances which acts like strong oxidants. Most parts of those compounds cannot exist outside of water in another state of aggregation. In this matter anolyte is unique in its chemical composition. Also, in this solution guarantees absence of dioxins or any xenobiotics which create risk of contamination to environment.

---- Physics of this process is complicated, but it's easy in general to understand. Flowing through reactor activated water obtained features of "Mazera" - systems highly active ions, molecules "microgenerators". Water activated by resonance short wave frequency (SWF) - electromagnetic radiation acquires characteristics close to ECA activation [1]. In some way molecules of activated water based on clinic experiment of their use of our hospital center [2]. - It's something like a miniature version of SWF generators ("Kremlin Pills"), which by flowing through a living organism causes its "restoration" - healing by resonance field. That is why even a small amount of these substances soluted in that water will cause effects (effect close to homoeopathy).

----According to this experiment it becomes extremely important to learn the spectrum of emission and absorption of liquid atmospheres which were activated by ECA and using internally, because of **clinical experiment of using SWF devices were found to have not only positive influences by electromagnetic vibrations, but also negative influences at certain frequencies. That is why additional activation of liquids by short wave resonance radiation on certain frequencies may substantially increase its healing abilities.**

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"IIS-RT"- 2007. Collection ? 17-4

The method of adaptive treatment. Artificial source bio medicine

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The article, in a very short and concise way, describes the major discovery of great importance to human civilization, for the first time it is proved that the so-called "bio" is not the prerogative of living objects. This discovery provides, firstly, a complete theory of the fundamental fields, secondly, to take a fresh look at the origin of life on earth and, finally, thirdly, a new direction in medicine, is fundamentally different from all known and allow for the two main principles of treatment;

harmless;

treat the patient, not the disease.

shown to a new method based on the eight-practice patients a wide range of diseases.

METHOD OF ADAPTIVE TREATMENT

St. Petersburg city 1993-1997 ISSUE 1

Say immediately : it further goes on regular panacea, and will be shown one possibility - a new approach to patient management.

Purpose of this study is on the one hand, the formulation of the new directions in alternative medicine, in which treatment of the patient is fundamentally different from all known methods of eastern European or mainstream medicine, and the other is to show practical achievements in the proposed area for treatment in the last eight years.

The basis for this new direction and establishes the following assumptions :

diagnosis and treatment choices priority (with several diseases) should be made by the patient's body;

according to their reserves resistance, the body shall mobilize the patient choices and creating their own funds to deal with a disease;

command key, in which the body begins to work this way, should be a matter to a neutral body itself.

Easy to suggest that the implementation of these assumptions can :

any possible medical errors, but also be able to treat diseases such that the early stages are not diagnosed, such as IBS;

the possibility of complications and side effects, and the complete absence of contraindications;

change the role of the attending physician.

Obviously, the medical institute's approach to treatment is not to teach. Therefore, asking for the opinion of modern medical technique, even with higher ranking doctors is useless.

Technology to the key had been tested in Pokrovskaya Hospital C - Petersburg, from which the author received a certificate in 1990. The principle of this technology was handling the electromagnetic field vials isotonic sodium chloride solution method intact. In other words, the chemical composition of the solution in the processing has not been changed. The following experiments were conducted at the outset IN VITRO to ensure objectivity, then at the Institute of Animal Physiology of Pavlova.

Photographs were produced using Kirlian photography, aura images of drops of fresh blood conventional arrive, and arrive, processed image technique (see photo No.1-3).

Photo 1 Photo 2 Photo 3



On the right plain broth, in the middle-treated, and the left-Aura drops of fresh blood. From comparison of images clear that the aura of processed box "dead" arrive the same aura living blood.

This is the first time shown that the method can artificially and physically force an inanimate object (water) for a limited time, a media bio. In other words, created an artificial source of bio (IIBP), as opposed to natural-life source.

In the early twentieth century, Academician Vernadsky V. I. has the idea of a global theory, which would have unified laws to animate and inanimate nature. This is the future of the unity of live and dead he called "noosphere". In theory, no par. It is expected that it will be the most important theory of civilization on Earth. Currently, a critical step in establishing the theory of undefined methodological framework for future theory, and viable paradigm for developing systems. In this paradigm contains the basic requirements for any viable and growing system in animate and inanimate nature and the systems that characterize the viability of all civilization on Earth. This law is far from par, but the conditions laid down in the paradigm must enter in theory "noosphere".

One theory is Fundamental Fields (TFP), the foundation of the theory of soils, a paradigm based on a viable and developing systems. Average combines all forms of interaction in the matter : the strong, weak, electromagnetic and gravitational - the main concept of TFP-laminate space. All the contradictions within existing disparate theories Spacetime time substance, and among addressed through TFP. However, the current hypothesis in biology, biophysics, and the hypothesis of the bio, ie special fields supposedly inherent only living system, a barrier between the known fields in biophysics and this particular field of living systems. We show that in fact there is no such barrier.

In this work, experimentally it has shown that the special effects of water or aqueous solutions known in physics fields, in the water or in aqueous solution, and there may exist some time secondary stimulated radiation in connection with the collapse of large water clusters with small numbers game small (electrically active) clusters with large numbers game. These small dipole, chaotically moving, a very low radiation of Incoherent chaotic spatial polarization. Since water is a major component of living systems, it is what field biologists called bio.

Random clusters of water in a living system comes from the special internal chemical mechanism changes (in a person that ATF) clusters. If this mechanism did not exist, the cells would not be able to assimilate micro-clustered water. Thus, stimulated emission of living systems (bio) is certainly a necessary accompaniment of the metabolism of cells of these systems, ie making large clusters of small external water.

On the magnetic radiospectrometer RE-1306, working Effect paramagnetic resonance with hydrophilic probes measured changes in the rotational mobility of ions in the cell water, as compared to natural water. Owners resonance lies in the range of 15-25 Hz. And the probe shows the rotational mikrovayzskosti decrease by 20-30%. As the frequency of the radiation is very low, and a living object is small compared to the wavelength of radiation, the actual field measurements near the site is always in short zone. Thus, the living organism as the laser is the sum of noncoherent point emitters with chaotic in a very low polarization range. Thus, it can be an important conclusion, namely : bio measuring devices must be physically in a multi-anechoic chamber for the suppression of external interference in the very low range of 120 dB. Such cells, in the author's opinion, in the territory of Russia is not. This is a very expensive camera. It should now understand. With measurements must be conducted by an electric dipole, and with high sensitivity magnetic antennas, ie parametric antennas with lasers, which can provide high sensitivity measurements.

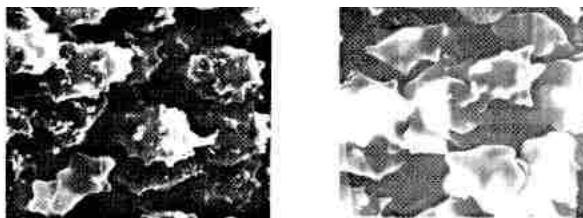
Another problem, which is transport, water molecules are resonant absorbent of proteins. Dipole number is in the tens of thousands-tens, and the natural water these numbers are mainly based on the number of Debye. Thus, mono-structurized water molecules is essential for effective synthesis and protein breakdown.

To determine the impact of protein, a biological experiment on the effectiveness of the drug on blood cells IN VITRO. This two similar tubes filled the same number of the same blood. Then one of them introduced normal arrive at 1 / 15 of the blood, and another at the same level arrive treated field. Of the two bottles sampled at the electron microscope.

After exposure to images submitted (photo No. 4-5).

Photo 4 Photo 5





On the left image visible blood cells with proteins conglomerate, and the right-treated cells of the protein.

Photo 6 Photo 7 Photo 8 Photo 9



Photo No. 6-9 shows the effects on the blood cells of the same blood IN VITRO various fields of the above methods. Photo No. 6-picture baseline erythrocyte (seen large blocks of waxy erythrocyte). At photo No. 7 after exposure to copyright methodology (see disintegration of large blocks into smaller). Pic No. 8-effects of ultraviolet radiation (visible disintegration of larger units than the photo No. 7). Photo No. 9-effects on erythrocyte (still large blocks, within which is scheduled to break small). Thus, you can make two important conclusions :

- objectively proved that the effect on blood broth, this is the electromagnetic field, there really was;
- effects on erythrocyte fields of copyright way more favourable than in other fields.

Impact on Plant (photo No. 10 : Left-treated water on the news. how, right-normal). The impact on the bread (photo No. 11) (a week) : right-treated water on copyright technique left-usual.

Photo 10 Photo 11



Check impact of the animals arrive at conducted to verify the absence of a negative effect on the kidneys and liver.

After such checks in the cardiology division Pokrovskaya Hospital on 30 IBS patients were treated in the drug compared with a control group.

Treatment proposed method has significant advantages over UFO blood and other traditional methods. In preparation cardiac surgery intensive care department applied for the septic endocarditis, when antibiotics did not work. It also found that the drug was triggered automatically as gipokoagulyant and how giperkoagulyant and as analgetik.

The same "product", also with a double placebo was tested at the Department of Infectious Diseases GIDUV in treating hepatitis B and AIDS. The result was positive and published in the Medical Gazette (No. 19, 1993). Comparison with azidotimedinom AIDS treatment showed a significant advantage copyright method. One of the patients monitored so far, and he periodically receives treatment (from 1991). The result is shown on the chart

Zashtrihovanny area on the chart marked points of treatment. In December 1991 T4 lymphocytes were measuring 300, in September 1996 T4 lymphocytes reached 1026.

The Department Pediatric Gastroenterology GIDUVa treated group of children with various diseases, including goiter and golden Staphylococcus. A report the department. After treatment was positive.

Also been treating **compression fractures and scoliosis (stages 1-2)** in children aged 12 to 14 years (16). Output 2 -3 positive course of treatment-recovery (time-treatment of four months to a year). Confirmed rentgenologicheski and photographs (Photo No. 12-13). Recovery Time-2 months.

Photo 12 (before) Photo 13 (after)

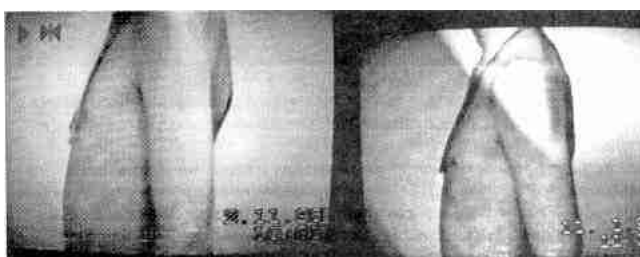
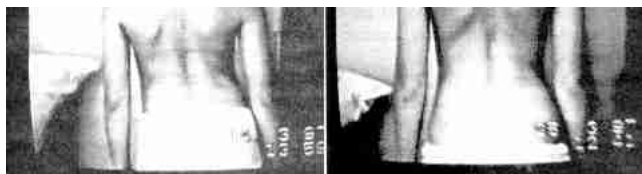


Photo 14 (before) Photo 15 (after)





There is also a full recovery with the restoration of eosinophilic granuloma vertebrae in the spine and Kyummelya disease.

There are some observations on healing **polycystosis ovaries, uterus myoma, welding pipes, eczema and neyrodermita, trophic ulcers, parapraktita, Hiss and burns**. Quickly and with sustained remission kupiruetsya Hypertensive Stroke. There had been cured diffuse kistozno-slipchivogo Arachnoiditis Medio basal localization. As observed in the treatment of breast tumors overlaid pack, it can be concluded that the man found a source of bio anticancer funds directly.

Before Treatment After Treatment

Comparing left photos tumors before and after treatment showed that the tumor disintegrated into two parts and has been considerably reduced. The photographs show the germination of living tissue in the tumor. The experience of breast cancer treatment in outpatient settings said that in the early stages, but already proposed knife surgery, IIBP can eliminate tumors. In a hospital in the intensive care unit was eliminated digestive tumor, the patient aged 74 years. It never seen any side effects or complications.

Photo 16 (before) Photo 17 (after)



Photo No. 16-17 demonstrated by the treatment of fatty oily skin (youth acne). Results obtained 4 months. Treatment proved hypothesis author of the new opportunities the new directions in alternative medicine. Thus, IIBP can be characterized as polisistemny tsitoprotektivny adaptogencorrector homeostasis. The technical name IIBP AKVATSIT--K (cell KISELEVA water).

Studies make important statements :

the proposed method can cure any disease without laboratory tests on animals;

new directions in alternative medicine actually has principles "do no harm" and "must treat the patient, not the disease";

the doctor is actually researcher processes in body homeostasis Copy, which allows more correct to use other means of treatment in case of their own resistance forces is not enough;

IIBP bioenergy can make in science;

IIBP to better understand and explore the emergence of life on Earth;

IIBP use in biological sciences and biotechnology could provide new results that are unattainable by other methods;

IIBP is extremely cheap and environmentally friendly production of patients a wide range of diseases;

public medicine unprofitable use this tool, as there is no need to require huge funding from the state for drugs abroad, receiving "commissions" person of companies.

Water - the source of the biological and the electrical energy

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In 1974, I defended a thesis on "The Oscillator Energy SPATIAL Feedback".

In 1975, HAC rejected my thesis because it was incomplete.

I have repeatedly defended this thesis in Vake 5 more times. By the then 19 copyright certificates were already issued to me. However, in the course of defending my thesis, I realized that the reason for rejection was very different and the truth began to surface. After a while, I showed a letter to my best friend, who suggested that the rejection was because I was considered an anti-Soviet.

Thesis were rejected.

However, the topic was not abandoned and I began to use it in medicine.

As a result, in 1990, I received the copyright certificate number 1827274 for "Method for processing physiological solution. Kisseleva BI."

In due time, I had perfected the process and received several patents. Testing began with the measurement of blood IN VITRO prior to the introduction of a nat. solution and treated by my usual method.

It was found that blood, as an independent body of liquid has an opportunity to respond to an "artificial bio-field"

Venous blood in the eyes become blood Alogo color, although color was dark. The blood of anaemic patients became normal haemoglobin rate. Later, in 1993, under the direction of MD SK Churin extensive studies were carried out on IN VITRO, and IN VIVO. The results were contained in a report submitted to the Academic Council approved by the hospital.

The primary findings of the work:

1. In the experiment, IN VITRO "Akvatsit-K" (the so-called structured I nat. Slurry). Structuring turned ordinary nat. solution in cell water and reduced the aggressiveness of platelets, to normalize the distribution of calcium inside the cell, causing activation of platelets.
2. "AKVATSIT-K" reduces the content of lipid hydroperoxide in plasma, indicating a stabilization of cell membranes.
3. There is good portability and lack of side effects course "AKVATSIT-K" for all the examined patients and the virtual absence of contraindications for this therapy to patients.
4. Under the short course influence of "AKVATSIT-K" as with the course AUEFOK, influences on the level of the lipids of the blood (cholesterol, HDL and LPNP) as well as blood sugar level could not be noted.
5. Towards the end of the course of "AKVATSIT-K", patients with hypertension 1,2 st. were observed hypotensive effect.
6. Against the background of the course "AKVATSIT-K", an improvement in the indices of ergometric was revealed. Tolerance to the physical load increased. However, with the course AUEFOK the tolerance to load remained at the same level as before the treatment.
7. There are positive developments in the state of blood coagulation (prolongation of time recalcification, reducing troboplastin-Thrombin activity and prothrombin activity).

Taking into account the favorable influence of "AKVATSIT-K" on the platelet count and the positive shifts in the clinic against the background of an improvement in the state of patients, it is possible, with a high portion of probability, to assume that the conducted course of "AKVATSIT-K", is connected with its influence on the coagulation potential of the blood and the processes of the peroxide oxidation of the lipids, which have value in atherogenesis.

Thus, this processing technique of intact nat. solution and methods of measurement of quantitative characteristics of changes in energy ions allowed the testing on patients with cardiovascular diseases, HIV patients and other diseases.

Patients suffering from multiple sclerosis 1-2 Art., Scoliosis, Article 1-3. As well as secondary syphilis had been successfully treated. Go to the second part of my work, namely, to create **electro-hydrodynamic generator (pat. number 56397 [CASMITTER])**.

CASMITTER- its name is an abbreviation for "CURRENT AMPLIFICATION - STIMULATED BY MOVEMENT OF WATER ALONG EMITTER", in other words, strengthening the current stimulated by the movement of water along the emitter.

This enhancement of current is **because of clearance across the velocity vector of water movement, there is a constant force on the protons of water, intensified by its dielectric constant by 89 times. Calculation shows that the amount of this force composes value, under specific conditions, tens of megatons.** Calculation is carried out for the generator, depicted on Fig. 1-4.

Fig.1.



Fig.2.



Fig.3.



Fig.4.





Furthermore, the water (electrolyte H₂O) after several cycles of circulation increases energy of Brownian motion into tens of thousands of times (see Fig. 5, 6 before and after and the diagram of the setup in Fig. 7).

Fig.5.

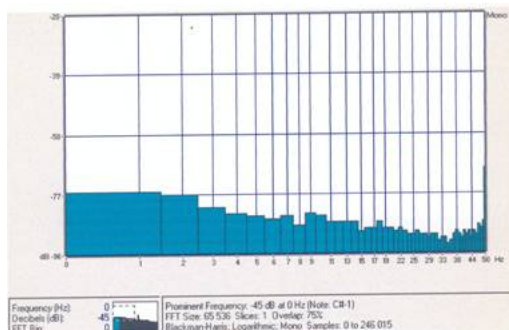


Fig.6.

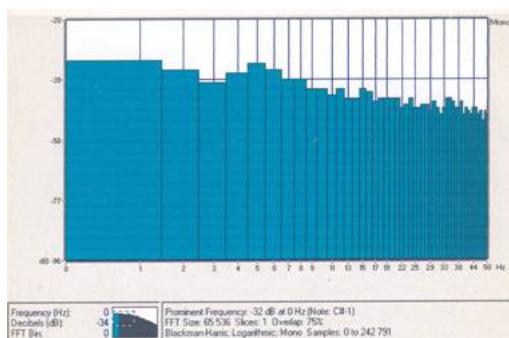
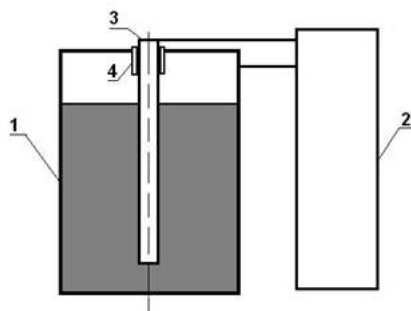


Fig.7.



In other words, through the sum of a constant force and forces of Brownian motion, impacts of a wide spectrum is produced throughout the entire length of electrodes. It is possible to assume that the lattice of the atom emitters under the influence of these forces, will enter into resonance and will drop electrons from its shells, which will already possess considerably larger energy, than energy of the action of protons.

Experimentally, such "fast" electrons were found as follow:

A solution was made of saturated KMnO₄ (pregnant solution).

After a few minutes in the generator, the solution became completely transparent, and at the bottom of the dilators, precipitated brown iron ore were deposited. Iron in the periodic table is right at the next location and is different from the manganese to one electron at the second level. Thus, the penetration of the electron on the second level of the manganese atom shows no normal energy of the electron.

It is thus natural to assume that the electron left the atom emitter from its resonant power spectrum of proton strikes.

In other words, the amplifier turned dynamo (UPT), which has its own source of nuclear energy. It is possible to formulate cold hydrogen-nuclear reactor for fast electrons, which differs from the existing nuclear fast neutron reactors.

Therefore, such a generator fuelled electrolyte as an alternative to forms of fuel could be a serious competitor for all methods to obtain power and energy.

RSC President
"Kurchatov Institute"
Academician

E.P.Velikhov

Information

The intensive care unit association Inter-Cardio had tested the preparation "Akvatsit-K" in postoperative patients with infection, instead of antibiotics.

The drug showed high efficacy in the treatment of sepsis, without the complications and side effects.
05.07.95

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In Pokrov Hospital of St. Petersburg and the Institute of Physiology. Pavlov, a study on the impact of intact-structured isotopic solution of sodium chloride (Akvatsit-K) for the biological experiment and clinical (cardiovascular disease, ischemic heart disease and hypertension).

The experiment was conducted in vitro on the blood of animals (IP 14) to determine the SA-binding capacity of the membranes of platelets using KHTTS, fluorescent probe for spectrofluorometer.

In addition, a study on the blood of animals (? 15) the impact of the preparation "Akvatsit-K" for hydroperoxide oxidation of blood lipids and given the comparative evaluation of the impact with the impact of MSS-blood for the same parameter.

Result: Reduction of fluorescence of platelets in the experimental group was an average of $32,4\% \pm 0,6\%$, in the control group - a decrease by an average of $15,1\% \pm 0,27\%$, that in 2,1 times less than in experimental group. The observed statistically significant effect of increasing calcium in the outer membrane as compared with the control group, which is likely to reduce the ability of platelet aggregation after exposure to the preparation "Akvatsit-K", ie reduced aggressiveness of platelets.

Result of hydroperoxide oxidation of lipids in blood plasma showed a decrease in average, $0,61 \pm 0,03$ to 1 ml of blood (control group). Thus, the statistically significant effect of reduction in the hydroperoxide oxidation of lipids with working of the plasma of the blood in vitro by the preparation of "Akvatsit-K" is a favorable factor for the stabilization of cell membranes, damage by the activation process of peroxide oxidation of lipids.

With MSS, there is increase in blood lipid peroxidation, which is a destabilizing factor for the "normal" functioning of cell membranes.

Studies conducted in vitro, showed good progress under the influence of "Akvatsit-K" in a state of cellular membranes, reducing the extent of lipid peroxidation, "aggressiveness" of platelets. One can assume that the changes observed in the smooth muscle cells (SMC) vascular wall, which in its SA-homeostasis resembles platelets: changes in concentration in the sagas + MMC vessels occurs by the same laws and mechanisms.

Clinical part

We examined 27 male patients aged 20 to 62 years. The majority of patients were persons of working age (avg. age 48 years). The main diagnoses: ischemic heart disease and / or hypertension. Angina with CHD corresponded to I-II functional class, hypertension of WHO classification in line with I-II stage.

The heavier group of patients consisted of 5 persons (transferred infarction with the postmyocardial infarction angina II- III functional class).

All the patients in the group were treated with traditional therapy treatment and a course of "Akvatsit-K". The course consisted of intravenous drip of 15 ml ampoules of "Akvatsit-K", dissolved in 150ml of isotonic solution of sodium chloride over 7-10 course of injections daily. No cases was reported of clinical deterioration in the current disease or poor tolerance of procedure. In patients with normal blood pressure, "Akvatsit-K" did not affect its value, while in patients with elevated systolic blood pressure, value fell by an average of 15 ± 5 mm and the diastolic by 7 ± 7 mm and remained stable until patient was discharged. Influence of "Akvatsit-K" for the frequency of attacks of angina pectoris was assessed only on the group of severe patients (5 men) with angina strain II-III functional class. There was a significant reduction of attacks of angina at rest, the easier halting of the stenocardia attacks, a sharp (5 times) reduction in the number of nitroglycerin tablets to halt attacks during the day, all patients managed to reduce the dose of designated nitrate's prolonged action of beta blocker and calcium antagonists.

Objective criterion for the improvement of the patients served as a test of dynamic studies of tolerance to physical activity by veloergometry before and after the course "Akvatsit-K". Initial power of 75 Watts. Every 3 min. load increased by 25 Watts. In the overwhelming number of cases, the load terminates upon attainment of heart rate 150 beats / min. Improving the well-being was noted in 16 out of 20 patients. OBJECTIVE: To reduce systolic blood pressure at rest and at the end of the load at 20 mm and an increase in the height of the load is not less than one degree (25 W), decrease signs of coronary insufficiency at the end of the load is not less than 1 mm. ST segment depression per kg. It is essential that 6 out of 7 patients on background therapy were minimal objective signs of improvement only on this type of treatment. In addition, the improved haemodynamics (increase in heart rate, blood pressure, rate of spending reserves myocardium under load). A study of influence of "Akvatsit-K" for blood coagulation system, as well as indicators of lipid and carbohydrate metabolism (cholesterol, sugar). Patients did not receive anticoagulants of direct and indirect actions.

After the end of the treatment time recalcification of plasma extended the average for the group from $162 \pm 11,6$ sec. to 235 - 139 sec. It

decreased the value of thromboplastin-Thrombin Activity with $94,5 \pm 1,7$ mg% to $238,5 \pm 13,6$ mg% ($p < 0.02$), the value of prothrombin index decreased from $91,9 \pm 1,7\%$ to $79,9 \pm 1,9$ ($p < 0.01$). Distinct tendency to the content of fibrinogen in the blood from $274,8 \pm 3,5$ mg% to $238,5 \pm 13,6$ mg%, and activation of fibrinolysis, lysis time of clots decreased from $314,7 \pm 17,2$ min. up to $277,2 \pm 13,9$ min. Critical reduction in size of prothrombin index and no prolong time in recalcification were noted. Fluctuations in prothrombin activity before treatment -108-76%, after treatment 100-63% (from 27 patients, reduced to 63% were from 3 patients).

Table 6 provides comparative data of "Akvatsit-K" for the severe group of patients (5) and blood.

No side effects of the preparation "Akvatsit-K" was found. Observation of clinical application of the patent, see IIS-RT ? 17-4, 2000 - Kiselev BI Adaptive method of treatment (an artificial source of bio-field in medicine). 6

PATENTS

Device for activation of liquids KR201020093572

Abstract

PURPOSE: The quality of the formed liquid is improved. The operation affinity and manipulation affinity of facility are enhanced. Provided is the liquid activating device. CONSTITUTION: A liquid activating device. With rinse units(1, 2). With the constitution unit for the electrical type activation. The constitution unit for adding the inorganic component and inorganic substance is included. One or a plurality of transmitters(5, 6) getting ready the display system for controlling the property of the activated liquid is included. Liquid activating device. In the entrance of the apparatus, one or more transmitters getting ready the display system for controlling the property of the liquid is included.

Description

The invention relates to a device according to the preamble of claim 1

The device can be used for activation of liquids and for the preparation of high-quality water, water solutions with predetermined mineral compositions and properties can be used.

Also for the production of washing, disinfection and germicidal solutions can be used.

Moreover, the device for reacting liquids in a thermodynamic activated non-equilibrium state with resonant micro cluster structure can be used.

This condition is characterized by increased physical chemical activity.

It is used for intensification of chemical, biological and physical processes.

Activated liquids are everywhere used where antiseptics and stimulators are used by biological and chemical processes. These include the treatment of seeds for various crops before planting and the soil for the purpose of casting weed control.

They can also be used to accelerate growth of crops and increase their harvest.

Also for the treatment of wounds in animals and humans and for the treatment and prevention of many diseases, the activated device with liquids.

There are devices for the activation of liquids by means of electrolysis (with and without diaphragm) known (VM Bachir Electrochemical activation, M. VNIIMT, 1992, part 1, 401 pp.).

These devices allow fluids with predetermined properties (in particular with a certain oxidation-reduction potential = redox potential, pH, micro cluster structure) to be produced.

However, they also have significant defects.

During the preparation of the activated liquids no system for monitoring their properties and composition.

It is used untreated tap water.

In effect, contain activated liquids uncontrollable side pollutants.

There is a Elektrodenbeschlagung (cathode deposits).

This in turn causes an uncontrollable degradation of the produced fluids, a deterioration of the electrolytic cell operation and frequent refresh.

Of the invention, the closest prior art, the means I sumrud SI (RU 12 120 U) for the preparation of activated liquids (water, anolyte, catholyte, contactless activated liquids).

This device contains a purification unit and units for electrical activation and addition of mineral elements and materials.

The major shortcomings of these devices are: the absence of a system for the control of the properties and composition of the produced fluids, and the formation of cathode deposits contaminated activated media (depending on the composition of the raw water).

The object of the invention is to increase the quality of the produced fluids and the operating and ease of installation.

This object is achieved by the features of claim 1.

The device for activation of liquids comprising components for the cleaning, the electrical activation, and the addition of mineral elements and substances.

It is also additionally provided with one or more transmitters with a display system to control the properties of the activated liquid.

Moreover, this device can be also equipped with one or more transmitters with a display system for the control of fluid properties at the inlet of the device.

They can also be provided with one or more donors with a display system for monitoring the temperature of the composition of the liquids.

In addition, they can also be provided with or Flüssigkeitserhitzern-cool, with memories and ultrasound activators, and with one or a plurality Entkeimungsbaugruppe degassers.

Which is arranged in front Entkeimungsbaugruppe the cleaning unit.

The cleaning unit of the device can additionally be provided with one or more fine filters.

The raw liquid contains different side after cleaning materials and gases.

These cause fogging of the cathode electrodes with debris and contamination of the fluids and the formation of activated secondary pollutants (carbonic acid, carbon, etc.).

The complete assembly of the device (one or more) sensors with a display system for the display of liquid properties and composition makes it possible to control the operation of the device for the produced fluids.

Disturbances and also fogging of the electrodes detected and replenished the pads and the filter elements are replaced.

The membranes Cartridgen with the mineral elements and substances can be exchanged and the feedback systems are being implemented to control and automatic transmission.

Attaching an additional unit for fine cleaning and degassing significantly reduces the cathode deposits.

In addition, the operating time of the device is extended without refresh, thereby improving the stability and the quality of the produced activated liquids.

The use of storage (even with heating or cooling) extends the functionality of the application possibilities and effectiveness of the device considerably without affecting their performance is increased.

The intensification of activation processes in the range of specific temperatures warming is taking place or Cooling of fluids during the production of the activated liquid.

This is done by means of incorporation of temperature control devices in the apparatus.

The invention will be explained in detail in the drawings schematically illustrated embodiments.

Shown are:

Fig 1 shows a device for the activation of liquids with a sensor with a display system for the control of the properties and the composition of the fluids,

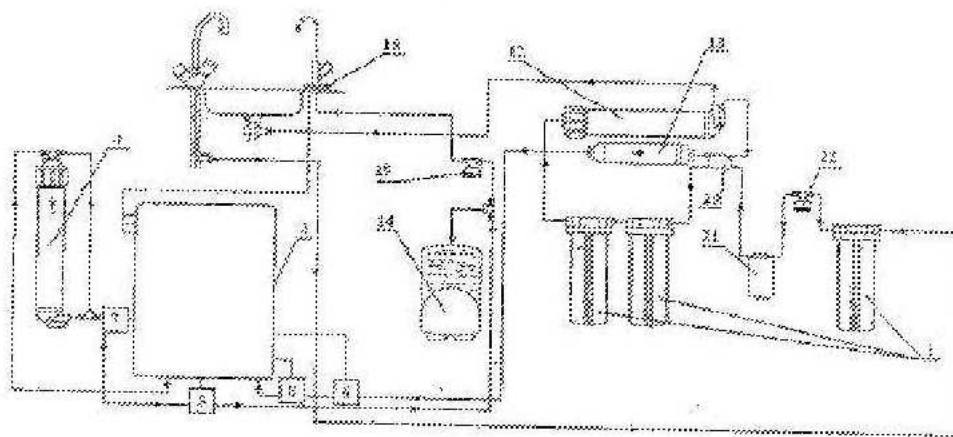


Fig 2 shows a device with additional units for sterilization, degassing and ultrasonic activation, including storage, heaters and coolers for the fluids and filters for fine cleaning and

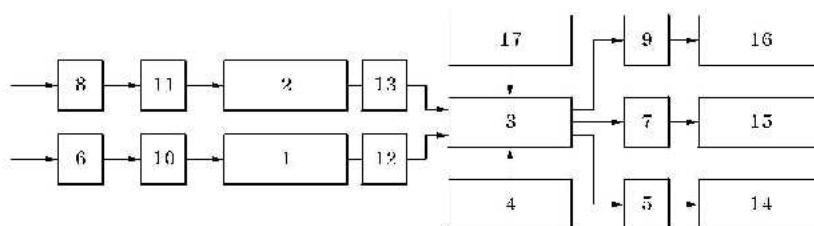
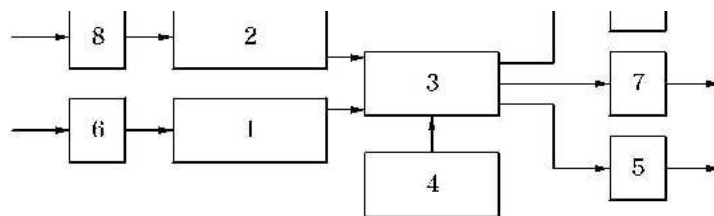


Fig 3 shows the scheme of the device for liquid activation Izumrud-SI (Mod 010s).





As shown in FIG 1 shows, the device for activation of the units 1 and 2 liquids for cleaning, a unit 3 for the electrical activation (electrical activator) and a unit 4 for the addition of mineral elements and substances.

This device also includes transmitter 5, 6 and 9 with display systems to control the properties of the fluids (activation level, pH, redox potential, temperature T, Dielektrizitätskennzahl [epsilon], conductivity p, etc.), and sensor 7 and 8 with a display system for the control the composition of the fluids (mineral elements and substances).

Donor 5, 7 and 9 are installed at the output of the device.

The encoder 6, and 8 are disposed at the inlet of the device in front of the cleaning units.

The device can also be equipped with the following components: building blocks 10 and 11 for the sterilization of the liquid, as Figure 2 shows.

Moreover filter 12 for fine cleaning, degasser 13, memory 14 for storing the activated liquids, heater 15 and cooler 16 for the liquid and one or more activators are available 17.

As sensor 5, 6, 7, 8 and 9 having a display system for the control of the properties and composition of fluids before and after the activation can standard encoder with display systems (mineralization, ion composition, materials, activation parameters, redox potential, pH, T, epsilon [], p) are used.

As a filter for fine purification 12 and 13 may as degasser standard devices are used on the basis of membrane technology.

It is to osmotic membranes, trace, Selektionsund more fiber membranes and vacuum and Ultraschallentgaser and combinations thereof.

The memory 14 may be equipped with a system which maintains a constant pressure and a constant temperature.

As an example for the realization of the proposed technical solution is the device for the activation of liquids Izumrud-SI (Mod. 01 os) as shown in Figure 3.

In this device as a display unit for a single donor separate assembly 18 is designed on the basis of a double light indicator.

The device contains additional assemblies and modules for operation automation.

These include high-pressure relay 19, automatic shutoff valve 20, 21 booster pump, low pressure relay 22

The memory 14 is equipped with a system for the maintenance of constant pressure.

The device for activation of fluids works as follows:

Come into the Rohflüssigkeiten units 1 and 2 for cleaning (Fig. 1).

While they flow through the encoder 6 to the display system to determine the properties and the sensor 8, with a display system for determining the composition of the liquids.

After cleaning, the liquids are transported to the electrical activator third

Here comes into the electrical activation of the liquids.

It may be added before or after the electrical activation of the assembly 4 certain substances.

Due to the stress caused by the electric field (electric activation) the modification of the internal structure of the water comes into (under normal conditions and in the absence of external influences is the water is a mixture of homogeneous isotropic Raumclustern polar water molecules and their ambipolar radicals).

Here, the water is activated with its modified structures both in Kathodenais stored in the anode region of electric activator dynamically.

These modified structures exist for a time and then relax back to the unactivated raw water after the activation process is completed.

The liquids at the exit of the electrical activator 3 can be monitored by the sensor 5, 7 and 9 for the determination of the properties and the composition of the fluids with each display systems.

Before cleaning the fluids can be disinfected by the units 10 and 11 (Figure 2).

At the output of the cleaning units, the liquids are subsequently purified by filter 12 and additionally treated with degasser 13th

After the activation and control of the properties of the fluids may be transported by means of units 15 and 16 is heated or cooled in the memory 14.

In the apparatus for fluid-SI Izumrud activation (Fig. 3) flows the liquid (the original tap water) through the first filter of the first pre-cleaning unit

The first filter (Absetzcartridgefilter) holds the mechanical admixtures to-back.

The second filter (with active carbon) provides an odor removal and removal of the residual chlorine from the water.

The third filter (Pressed coal) from organochlorine compounds, unpleasant taste and odor.

After flowing through the three Vorreinigungsfiler the filtrate enters the fine cleaning filter 12 (rückosmotische membrane).

The pore diameter in this membrane is max. 0.0001 [mu] m.

Therefore, this membrane can practically only water molecules and dissolved oxygen.

After the final purification filter the water comes to the deaerator 13 (Nachreinigungskohlenfilter from coconut).

Then the purified water flows through the encoder 6 for property control (activation step) and donor 8 for composition control (mineralization conductivity meter).

Then it passes into the third electric activator

The electrical activator device lsumrud-SI (Mod 01 os) has a special design and is constructed from modern materials.

He has a resonant power supply.

This electrical activator makes it possible to activate the water, to sterilize effectively, its structure and redox potential in the range of about ~ - (100 .. 250) mV to improve.

In the end, the water has antioxidant properties.

If the water continues to Mineralisationsbaueinheit the mineralizer 4, flows through, it is saturated with the easily digestible for the human organism trace elements Ca <+ +>, Mg <+ +>, I <">, Se.

Thereafter the activated and mineralized water is conveyed through the sensor 5 to determine the characteristics (activation step), and the sensor 7 for determining the composition (mineralization conductometer).

In the storage tank 14, it is then collected and discharged through the high pressure valve 19 and a valve.

Which is collected in the storage container Antioxydanswasser 14 under a pressure up to 2.5 bar.

If no water is then derived, remains its redox potential obtained at least 3 days.

The signals from the input sensors 5 and 6 for the control characteristic and the output sensors 7 and 8 for the composition control can be processed by control units (controllers) of the electrical activator, third

They provide consumers with the information on the proper operation of the device via the display 18 in the form of 3 double-LEDs.

While green and red mean in order a deviation from the norm.

The three LEDs indicate the quality of the cleaning, activation, and mineralization of activated water.

The alarm LED unit in a timely manner to malfunction of the electrical activator and exchanged cartridges and refill the mineral additives.

The high pressure relay 19, the automatic shut-off valve 20, the booster pump 21 and the low pressure relay 22 provide the continuous automatic operation of the device securely.

The prerequisite is that the required pressure in the pipeline network and electricity available.

Precipitated from the water supply from the mains, it closes the check valve 20 from the water outlet of the device, and the water in the reservoir is retained.

As mineralization donor Typenkonduktometer activation donors were used, namely the donor activation level according to the Russian Application No. 2007127132 dated 16.07.2007.

With comparable characteristics of the electrical activation (energy input, output), the known device has ended after 24 hours of continuous operation, the water activation (ie, the improvement of redox potential).

The cathodes were misted with cathode deposits.

The registered device worked, however, three months later, still undisturbed.

It should only be remarked that the red LED of the display system 18 after these three months reported the required replenishment of mineral additives.

WO2009010858

METHOD FOR RECOGNISING THE CLUSTER STRUCTURE AND THE MICROCLUSTERS IN LIQUIDS

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CPC: G01N29/02

IPC: G01N29/02

The invention relates to a method for recognising the cluster structure and the microclusters in liquids with the change in e h characteristic values of radiation incident on the liquid. According to the invention, the technical achievability of the method can be improved, the sensitivity increased, the cost of the recognition process reduced, the cluster structure and the microclusters recognised in deep liquid layers

and the dynamic range improved, wherein the liquid under investigation is subjected to ultrasound radiation, wherein the liquid microclusters themselves form highly energetic eddy formations of liquid dipoles.

Description

The invention relates to a method for the detection of clusters of micro-structure and the cluster of liquids.

It can be used for measuring the physico-chemical and biological activity of the structured liquids in various applications.

To specifically include the detection of characteristics and parameters of the biologically active substances (biologically active additives), the activated gases and liquids, which are located in thermodynamic non-equilibrium state with micro cluster structure or have been brought into this state by means of substances and fields, for the optimization of process the activation of the liquids and the hydrogen energy in real-time.

It is a method for the detection (identification and acquisition of the properties and parameters) of the structured conductive liquids known.

This is done by visualizing the structure of water by freezing water and photo-taking (Masaru Emoto, Messages from Water: secret codes of the ice crystals).

M.: OOO publishing "Sophia", 2006. - 96 S., <http://www.astarta.pp.ru/forum/showthread.php?t=1065>).

The main shortcomings of this method are its complexity, inertia and conservation, ie Freezing.

Only the structure of the upper layer of the liquid is detected.

The conditions for the implementation of the method significantly affect the measurement results.

It is a method for visualizing and exploring the parameters of the patterned conductive liquids due to the method of the gas discharge visualization (GEV) known.

The GEV method is a process tool.

It allows to analyze the thin water structures rapidly and to take into account the particularities of environmental influences (the assessment of structural modifications in the liquid phase objects, <http://grv.fromru.com/use.html>).

About the shortcomings of this method is one in which complexity of its technical realization.

Only the structure of the upper layer of the liquid is detected.

The conditions for the implementation of the method significantly affect the measurement results.

Is technically closest to the proposed method is the method for the detection of characteristics and parameters of the patterned conductive liquids by means of the visualization supraübermolekulären water complexes due to laser interference

(Smirnov AN Lapshin VB Balyshev AW Lebedev IM Syrojeschkin AW Supraübermolekuläre water complexes. "Explored in Russia", p 413-421. <http://zhurnal.ape.relarn.ru/articles/2004/038.pdf>).

The liquid to be tested is treated with laser radiation.

If supraübermolekuläre water complexes (SUEK) is present in the liquid, so as a result of this treatment is the amplitude of phase modulation of the laser radiation on optical inhomogeneity of the extended laser beam passing through the liquid system.

Observing and documenting SUEK done using video equipment.

The main shortcomings of this method are the complexity of its technical implementation, the complexity of the realization of the resonance methods of detection when the micro-cluster sizes exceed the radiation wavelength, because an optical high-frequency range is used.

Moreover, the cluster structure is recognized only in the thin surface layer of the liquid.

The object of the invention to simplify the technical feasibility of the process of increasing its sensitivity to lower the cost of the acquisition sequence to identify the cluster structure and the micro-clusters in deep and liquid sections to extend the dynamic range.

This object is achieved according to the invention in that after the change of the characteristics of the radiation acting on the under test liquid, the liquid is treated with ultrasound, and in the measurement of the radiation characteristics of the Doppler frequency shift is applied.

The use of ultrasound as a radiation source shall ensure that: a simplification of the process, the reduction of the energy intensity of the process, its cheaper, increasing the sensitivity and the possibility of three-dimensional mass analytical detection of the cluster structure of the liquid due to the method of pulse wave Doppler (using Doppler frequency shift for the measurements).

The use of ultrasound for the detection and visualization of various physical education and inhomogeneities in liquids is well known.

However, it was due to the specific structure and the properties of the cluster of micro-liquid to be impossible to realize such structures by ultrasound.

We have demonstrated experimentally and theoretically that it is possible.

This is due to the fact that the liquid micro-clusters are themselves high-energy vortices (high-energy vortical formations) from Flüssigkeitsdipolen (di-polar liquid).

The Flüssigkeitsdipole the resonance microclusters (RM) (Resonance micro-clusters (RM)). With dimensions of $\sim [\lambda]$ of ultrasound in liquid and less

This allows the resonant micro cluster with the ultrasonic radiation are in resonance interaction and dissociate in Komponentendipole (composition dipole) and ions.

This is also due to the technical simplicity of Frequenzumstimmung and the possibility of application of pulse wave Doppler ultrasound for.

The formation of stable clusters of micro bound dipoles was first explained theoretically 1985 (Schironosov VG reports from universities, Physics, 1985, Volume 28, Issue 7, pp. 74-78).

It was previously unknown to law the formation of stable vortical resonance micro-clusters (RM) of two or more resonance moderately in push-pull oscillating dipoles (solution of the problem " $1/R < 3$ ") established with a rapidly decreasing radiation field.

The field decreases with the distance from ($\sim 1/R < 4$).

Later (Schironosov VG, EV Schironosov Collected theses, Report 2 International symposium.

Electrochemical activation in medicine, agriculture and industry. - M.: VNIIMT NPO EKRAN, 1999, Part 1, page 66) was also tentatively (discovered empirically) the effect of the non-contact activation of liquids (KAF) in the electrolysis without a diaphragm by means of thin walls.

Such non-contact activation of liquids was determined by the RM-radiation.

The resonant micro clusters of water bound OHDipolen (after peroxy type - H_2O_2 H_2O_2 ...) cause the formation of characterizing radiation in different wavelength ranges (mechanisms of action of the electromagnetic waves of low intensity to water and water solutions.

22nd International scientific and practical conference "Problems of electronics", <http://merak.ru/journal20rus.htm>).

The specific relaxation time of the RM - $[\tau]$ RM exceeds by several orders of magnitude the $[\tau]$ of the usual nonequilibrium media (KMR (NMR), ESR, etc.).

They can be a few tens of seconds to a few decades.

This is confirmed by the results of the tests.

Thus, the patterned conductive liquid is a substance which is in a thermodynamic non-equilibrium state with a micro cluster structure.

And this material itself acts as a radiation source.

Structured systems (liquids and gases) have their own vortex structure (Schironosov VG Physical nature of ball lightning.

Collected Theses of reports of the 4th Russian scientific-practical conference for universities and academies. Izhevsk: Publisher of Udmurt University, 1999, Part 7, pp. 55-58. <http://www.ikar.udm.ru/sb15-9.htm>).

Listens to the action of the substances or fields on completely, returns the non-equilibrium structure of the substances back to their original state of equilibrium.

The method according to the invention is explained in detail based on embodiments shown in the drawings. Shown are:

FIG 1-3 schemes the detection of the parameter microclusters fluids according the parameters of the ultrasonic measurement values.

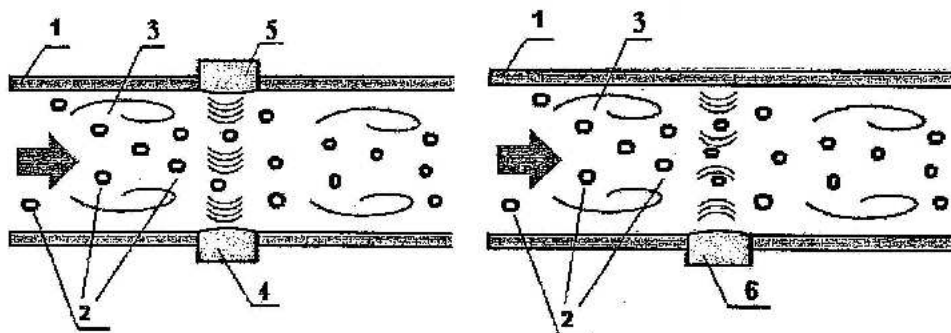
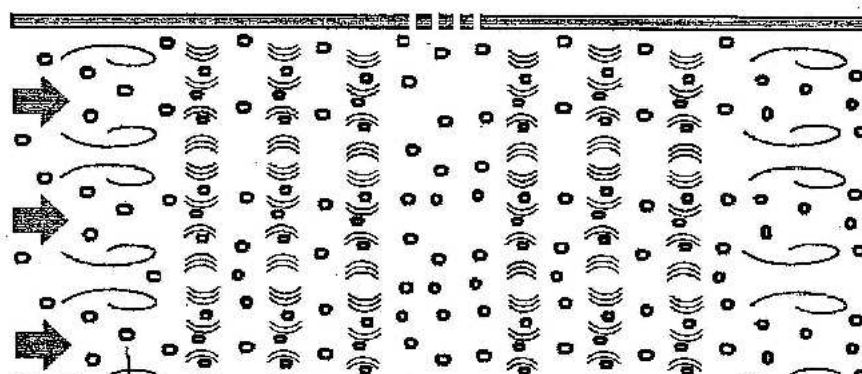


Fig. 1.

Fig. 2.



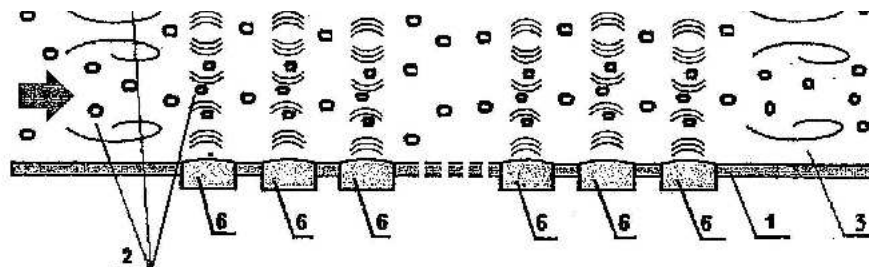


Fig. 3.

In Figures 4 to 11 Examples of the generated images of the cluster structure for different liquids are shown: FIG 4 0.3% water solution of Na_2CO_3 contact as enabled in the system "Izumrud-SI" (Mod 04s) - "<http://www.ikar.udm.ru/i-si-04.htm>"

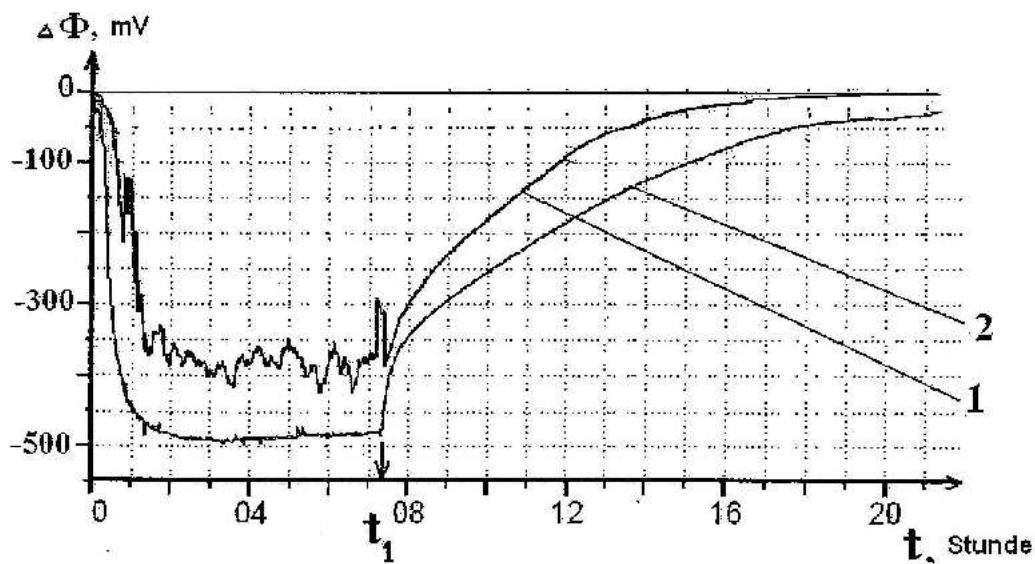


Fig. 4

FIG 5 ANK (neutral anolyte kathodenbahandelt), won in the 'Izumrud-SI' (Mod 03) - "<http://www.ikar.udm.ru/i-si-03.htm>"

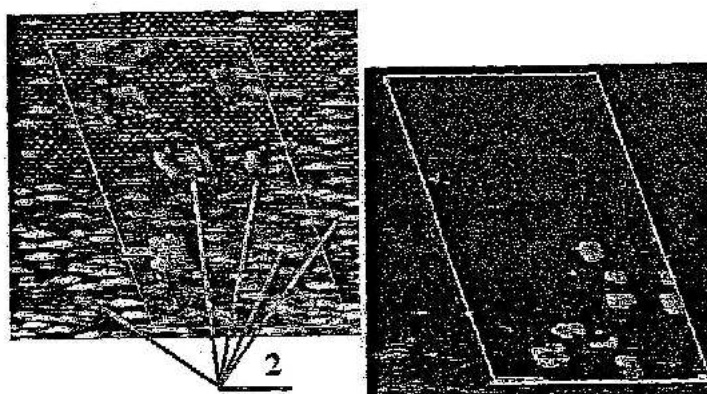


Fig. 4.

Fig. 5.

Figure 6 distilled water, contactless enabled in the system "Izumrud-SI" (Mod 04s) - "<http://www.ikar.udm.ru/i-si-04.htm>" size of the horizontal mark 5 mm;

FIG 7 vodka "Sarapulskaya" contactless enabled by U.S. Piezostriktionstrahlers (10 W 1 24 kHz);

FIG 8 Saueranolyt, won in the 'Izumrud-S' (model 03) in Flow Operating anolyte / catholyte 1:1 - "<http://www.ikar.udm.ru/i-si-03.htm>", the size of the horizontal mark 5 mm;

FIG 9 catholyte, in the 'Izumrud-SI' (Mod 03) obtained in the flow mode anolyte / catholyte = 1:1 - "<http://www.ikar.udm.ru/i-si-03.htm>", size of the horizontal mark 5 mm;



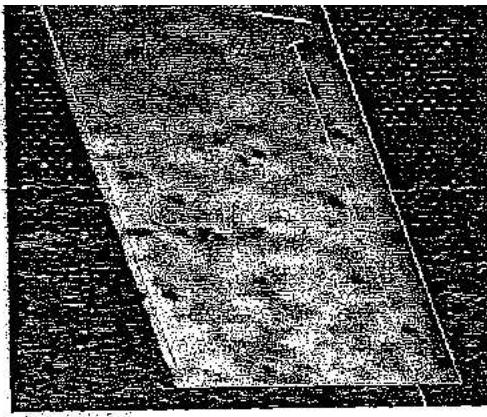


Fig. 6.

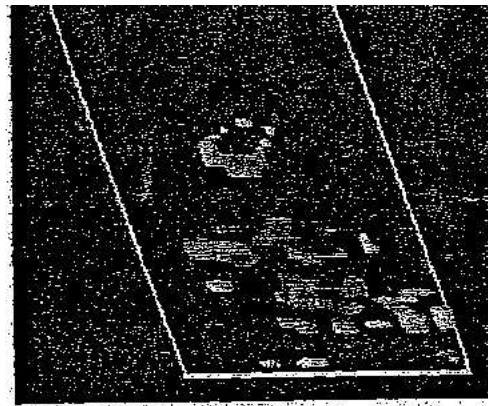


Fig. 7.

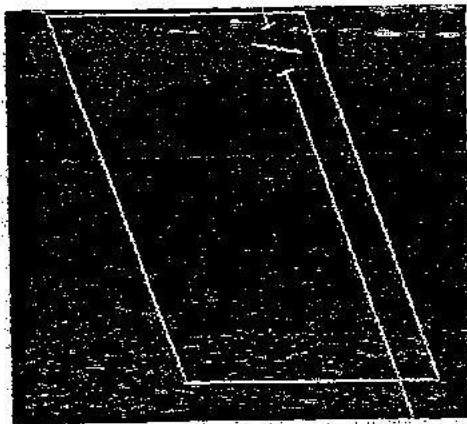


Fig. 8.

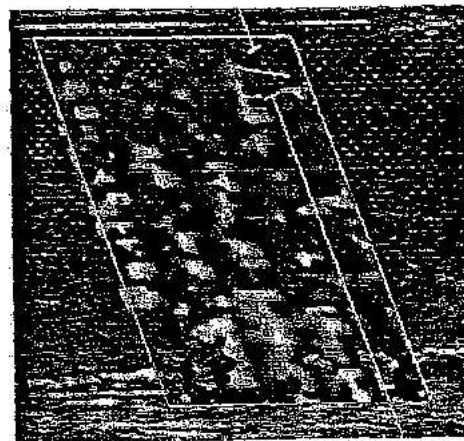


Fig. 9.

Figure 10 distilled water, activated by gaseous fractions due to the interaction of Al and HCl solution;

Fig. 11 distilled water, activated by UV radiation.

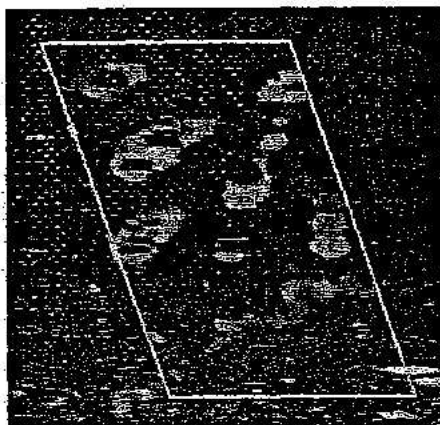


Fig. 10.

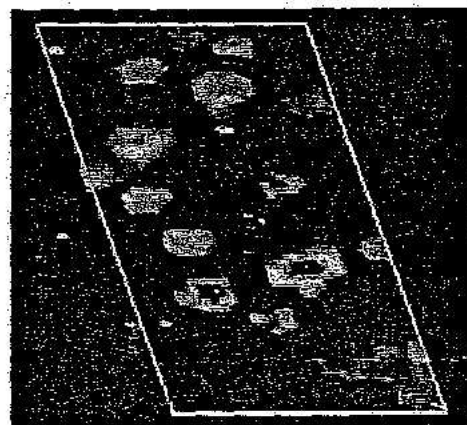


Fig. 11.

The means for detecting the cluster structure and the micro-clusters of liquid (Figure 1) consists of a container 1 to be investigated with the (micro-structured and cluster 2 containing) liquid 3

The emitter 4 and the U.S. receiver 5 are arranged either in this tank or contact (with the walls of this container FIG 1).

The emitter 4 and the U.S. receiver 5 can be used as a single component 6 using the Impulserfassungsmethoden (FIGS. 2 - 3) are performed.

The container 1 (Fig. 1 - 3) may be a flow-Eindosierbehälter.

The procedure for the detection of clusters of micro-structure and clusters of liquid consists in the following: The container 1 contains structured liquid 3 (Fig. 1 - 3); the radiator 4 and the U.S. receiver 5 (Fig. 1) or a unified element 6 (FIG 2, 3).

Everything is placed in the container 1.

Here, the radiator 4 and the U.S. receiver are arranged on the container walls 6.

Due to the interaction between the U.S. and the waves of the liquid 3 micro clusters 2 comes into a change in the wave parameters.

Below are the parameters of the abandoned and the reflected wave (amplitude, frequency, phase, delay, when pulse techniques are used) measured.

Thereby, a signal is formed which represents the parameters and the properties of the cluster structure of the liquids.

By mathematical processing of the signals of several converters (Fig. 3) the display of the cluster structure and the micro-clusters of liquid is visualized on a screen.

Order to increase the sensitivity and the degree of the method, in addition, the dissociation of the cluster pattern is effected in the molecular components and ions by the frequency and the amplitude of the wave can be retuned U.S..

The resolution of various substances in the fluid to be examined as well as the treatment of the liquid with different fields cause the modification of the cluster structure of this liquid.

Acting accordingly using the signal to be detected size.

As to be examined structured liquids, such substances can be used, which are located in the liquid state, and which have been brought into the thermodynamic non-equilibrium state with resonance microclusters structure or can be maintained in this state, by means of the release of various substances, chemical and biochemical reactions, physical processes, heating and radiation of various electrical and mechanical generators and power sources.

These include, for

As solutions of chemicals, Mikroclusterund nanoclusters powder (Mikrohydrin, Megamin, Sehydrin (Segidrin), activated alumina, etc.), the contact or in contactless activated liquids (which have been produced by electrolysis with or without a diaphragm, with the use of electrical and mechanical generators warming) form.

The effectiveness of the method is confirmed by examples notified of detection of the cluster structure and the micro-clusters of different liquids, which are located in thermodynamic non-equilibrium state with resonant micro cluster structure (4 to 11).

The representations of the cluster structure and the micro-clusters of liquid were at modes of Echound Doppler signals (the limited to the frame area) in the U.S. Scanner "MyLab 15" is generated.

The amounts of distilled water were sonicated by ultrasound.

It was known in advance that the treatment benefits would not cause intense heating of the liquid to be examined (line encoder 10.0 MHz).

During this treatment, in the usual pattern formation fluids were visualized on echo operation, which have been previously observed in the prototype using optical methods.

When power Doppler operation limited Doppler positive developments were visualized by micro-clusters.

They had a stable rounded shape and distinct contours.

These micro cluster formations had. The form of rings and toroids or other stable forms having a diameter of 0.6 to 1, 5 cm, and moved over the entire volume of liquid USbehandelten

It increased the amount and size of the described positive Doppler toroids depending extension of the exposure time, the frequency selection and the power increase of the search pulses.

In addition, the number of toroids produced in specified volume of liquid, and their formation rate were influenced by the actual state of the activated liquid.

The dependence of the amount and from what the articles described the characteristics of the U.S. sonicated liquid indicates that these micro-clusters (stable long-life education and no bogus representations ie, Artefacts).

The Doppler representation of the toroidal microclusters are actually the velocity of the water particle motion again (molecules, clusters and larger clusters) in the predetermined point of the room.

Thus, under U.S. influence such stable (more than a few seconds) existing objects are created in the water, in which the rate of molecular motion exceeds the natural level in the base of the liquid with not much thermal performance.

Thereby achieving the DopplerVerschiebungeni kHz and more.

WO2009010855
METHOD FOR DETERMINING THE ACTIVITY OF A STRUCTURED LIQUID

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CPC: G01N37/005
IPC: G01N27/416

The invention relates to a method for determining the activity of a structured liquid, including the measuring of physical parameters thereof. The potential difference between the electrodes dipped in the liquid is used as a characteristic value for measurement, the electrodes being made of materials with which the microclusters of the liquid do not interact in the same manner, which simplifies the technical construction, increases sensitivity, records activity on smaller portions reduces the energy intensity and reduces the costs of the determination.

Description

The invention relates to a method for determining the activity of a structured liquid.

The method can be used in various applications, including specifically in the detection of characteristics and parameters of biologically active substances, as well as activated gases and liquids, which are in thermodynamic non-equilibrium state with micro cluster structure or have been brought into this state by means of the substances, and of fields .

It is a method for detecting the characteristics and parameters of the liquids by means of visualization of the structured conductive supraübermolekulären water complexes due to laser interference known (Smirnov AH Lapshin VB Balyshev AW Lebedev IM Syrojeschkin AW Supraübermolekuläre water complexes.

"Explored in Russia", p 413-421. <http://zhurnal.ape.relarn.ru/articles/2004/038.pdf> .

The main shortcomings of this method are its complexity and the fact that the activity is detected only in the surface layer of the liquid, and that due to the application of an optical high-frequency range.

Is technically closest to the proposed method is a method for determining the activity of a structured conductive liquid.

Such activity measured using the detection of residual radiation from excited water micro-clusters of bound dipoles OHnach the peroxy type - H₂O₂, H₂O₂ ...

(Mechanisms of action of low-intensity electromagnetic waves on water and water solutions. 22nd International scientific and practical conference "Problems of electronics", <http://merak.ru/journal20rus.htm>).

The major shortcoming of this method is that it is necessary to use super-sensitive spectral with Mikrowellenund mm areas.

This eliminates the possibility of measurement of activity of small portions of liquid, which have been subjected to a specific way.

Other shortcomings include the lack of sensitivity of the method, the complexity and costliness of its technical realization and insufficient accuracy (for insufficient exposure to the inner physical fields on the electrode sensors of Mikrowellenund mm ranges through the liquid medium).

It is an object of the invention to simplify the technical realization of the process, to increase the sensitivity to detect the activity of small portions of liquid to reduce the energy intensity and to reduce the cost of the detection sequence.

This object is achieved according to the invention is achieved in that the potential difference is used between the immersed in the liquid electrodes as to be measured characteristic value, wherein the electrodes are made of materials which cooperate dissimilar with the micro-clusters of the liquid (Fig. 1).

For measuring the parameters of the test liquid special electrodes are immersed in the liquid to be tested and measuring the potential difference between the electrodes are immersed.

Here, the structured liquid to be analyzed is separated by a thin wall of the liquid to be tested.

Also then, the potential difference of the test liquid to be compared with the potential difference of the liquid to be examined.

The use of potential difference between the immersed in the liquid electrodes as being measured characteristic value, while the electrodes are made of the the micro clusters of liquid different cooperating materials, ensures the simplification of the procedure itself, the reduction of the energy intensity of the process and its cheapening .

This is due to the fact that the micro-clusters of the liquid surface with atomic electromagnetic fields of dissimilar electrodes cooperate to dissociate in the formation of Ionenkomponenten Hydratisierungselektronen.

As a form at the dissimilar electrode potentials of various sizes.

The difference between these potentials (EMK) serves just as an activity measure of the structured liquid (concentration of micro-clusters after the peroxy type, per unit volume).

Thus, in detail, one of the electrodes, which dissociates the peroxy active are formed from silver, gold, platinum, palladium or iron oxide.

This is, for example, to determine the activity of the patterned conductive liquids from bonded OH dipoles (after the peroxy type - H₂O₂, H₂O₂, etc).

The other electrode, such As the low activity may be carried out of iron.

The actual appearance of the rapid decomposition of the compounds of bonded dipoles on the surface of each electrode was as activation (activation) denotes (Altshuller GS, Shapiro RB Oxiwasser.

"Technology for young people", Issue No. 10, 1958. Pp. 25-27.).

The formation of stable clusters of micro bound dipoles was explained theoretically 1985 (Schironossov VG reports from universities, Physics, 1985, Volume 28, Issue 7, pp. 74-78).

It was previously unknown to law the formation of stable resonance micro-clusters (RM) of two or more resonance moderately in push-pull oscillating dipoles (solution of the problem " $1/R < 3>$ ") established with a rapidly decreasing radiation field.

The field decreases with the distance from ($\sim 1/R < 4$).

Later experimentally discovered (empirically) the effect of non-contact activation of liquids (KAF) in the electrolysis cell without diaphragm through thin walls.

Such non-contact activation of liquids was the RM-radiation caused Collected (Schironosov VG, EV Schironosov theses of the reports of the 2nd International Symposium. Electrochemical activation in medicine, agriculture and industry. - M.: VNIIMT NPO EKRAN, 1999, part 1, page 66).

The specific relaxation time $[\tau]$ of RM RM exceeds by several orders of magnitude the $[\tau]_0$ the usual nonequilibrium media (KMR (NMR), ESR, etc.).

They can be a few tens of seconds or more.

This is confirmed by the results of the tests.

The activated or by the action of substances or fields to be activated is a liquid substance, which is located in a thermodynamic non-equilibrium state with a micro-structure and the cluster itself, the radiation source.

Structured liquids have a specific electromagnetic radiation (<http://merak.ru/journal20rus.htm>, <http://www.lfbmcongress.spb.ru>).

Hears the influence of substances, or on fields completely, returns the non-equilibrium structure of the substances back to their original state of equilibrium, and therefore so does the induced emf.

The specificity of the method is its high sensitivity to weak energy flows and small amounts of soluble substances.

This is because the change of the polycrystalline structure of the water according to the laws of thermodynamics molecular requires much less energy than. The change of the characteristic values ??of weak electrolytes

The measurement of the potential difference between the immersed in the test liquid electrodes, the test fluid is separated from the to be tested structured liquid by means of a thin wall, makes it possible the influence of the electrodes reduce the change process essential to carry out the selective measurements by specific spectral characteristics of the walls and the test fluid to be used, and the determination of the liquid contact and activity without introduction of chemical admixtures make the part of the electrodes.

The additional measurement of the potential difference between the possible in the test liquid immersed electrodes and the comparison of this difference with the measured potential difference for the examined liquid to the sensitivity, the fault tolerance and the accuracy of the device for realization of the process and their calibration significantly (by a few orders of magnitude increase).

The invention is explained in detail with reference to the drawings.

Fig. 1 shows a circuit diagram for measuring the potential difference between dissimilar electrodes

Fig 2 shows a circuit diagram for measuring the potential difference between the electrodes immersed in the test liquid, wherein the test fluid is separated from the liquid to be examined, structured by a thin wall,

Fig 3 shows a circuit diagram for measuring the potential difference between the immersed in the test liquid and the liquid to be examined and electrodes

Fig 4 shows the curves of the type $[\Delta\phi]$ of the structured fluid as a function of time during the activation process ($t < t_i$) and after ($t > t_i$).

The means for implementing the method for determining the activity of a structured liquid (Figure 1) consists of a container 1 for the liquid to be examined is structured second

Two electrodes are arranged in the container 3 and 4 from dissimilar materials.

The electrodes are connected to potential difference knife 5.

The device can a container 6 (Fig. 2) with 7, and the test liquid therein electrodes 3 and 4.

The test fluid is separated from the container 1 with the structured liquid to be examined, 2 by means of a thin wall 8.

Moreover, the device can additionally be provided with a container 9 (FIG. 3).

9 contains the test liquid, the container 10 and the electrode 11 disposed therein and 12

Here, the electrodes 3 and 4 as well as 11 and 12, as EMF sources serially connected to and connected to the potential difference knife 5.

The containers can be formed as DurchflussEindosierbehälter.

The method for determining the activity of the structured liquid consists in the following: The electrodes 3 and 4 in the container 1 with the structured liquid 2 (FIG. 1) or in the container 6 is introduced with testing liquid 7 (FIG. 2).

The test liquid contacted with the liquid to be examined by a thin wall 11

The electrodes 3 and 4 are made from such materials, which interact differently with the micro-clusters of the liquid.

Due to the interaction of the liquid with the microclusters atomic surface electromagnetic fields of dissimilar electrodes their dissociation is carried out in the formation of under Ionenkomponenten Hydratisierungselektronen.

It appears the emf across the electrodes 3 and 4

The EMF will be forwarded from the electrodes 3 and 4 (Fig. 1, 2) for knife 5.

At the output of the blade 5, a signal is generated which indicates the concentration and energy of the micro-cluster after the peroxy type, per unit volume, is proportional to, and which has the activity of the structured liquid 2.

The liquid 2 to be examined is introduced into the container 1 (Fig. 2), and thereby separated from the container 6 with test liquid 7 by a thin wall 8 so comes into the non-contact activation of the test liquid.

Accordingly, the electromotive force appears at the output of the electrodes 3 and 4

As a thin wall 7, 8 and the test liquid materials having different spectral characteristics and properties in relation to the radiation transmission can be used.

In detail, the thin wall of such materials such as dielectrics, conductors, semiconductors, or their combinations are performed.

Order to increase the sensitivity and the interference security of the device for realization of the proposed method and its calibration, in addition, the potential difference between the immersed in the test liquid 10 electrodes 11 and 12 (FIG. 3) is measured and compared with the potential difference, which in the test liquid was measured second

The measurement of the potential difference in liquids and the comparison of results can be (in time) either sequentially or simultaneously, by means of a serially opposition differential circuit of the electrodes as EMF sources (Fig. 3).

The resolution of various substances in the fluid to be examined as well as the treatment of the liquid with different fields cause the change of the liquid type.

This has accordingly made on the signal to be detected size.

As to be examined structured liquids, such substances can be used, which are located in the liquid state, and which have been brought into the thermodynamic non-equilibrium state with resonance microclusters structure or can be maintained in this state, by means of the release of various substances, chemical and biochemical reactions, physical processes, a heating, a radiation of various electrical and mechanical generators and power sources.

These include, for

As solutions of chemicals Mikroclusterund nanocluster powder [Mikrohydrin, Megamin, Sehydrin (Segidrin), activated alumina, etc.] and the contact or in contact-activated liquids (which by electrolysis with or without diaphragm, using electrical and mechanical generators, or by heating were generated).

The effectiveness of the process is notified to Examples 1 to 5 confirms the determination of the activity of various structured liquids which are located in thermodynamic non-equilibrium state with resonant micro cluster structure.

Distilled water was used as the test liquid.

As electrodes, which cooperate with the dissimilar micro clusters of the liquid, platinum Pt, and stainless steel were used.

The electrodes were immersed in the liquid to be examined.

Example 1

A method for measuring the activity of the structured liquid - water solution of hydrogen peroxide with various concentrations H_2O_2 - has according to the scheme in FIG 1 - $[\Delta] [\Phi] i$ and Figure 3 - $[\Delta] [\Phi] 3$ is performed (with counter circuit the EMF electrodes).

Table 1

Example 2

A method for measuring the activity of the structured liquid to the circuit diagram of Figure 3 (with counter circuit the EMF electrodes).

The potential difference $[\Delta] [\Phi]$ was found between the electrodes immersed in the test liquid.

The test liquid was separated from the structured liquid to be examined with a thin polypropylene wall.

Structured as to be examined was the contact-activated liquids by electrolysis in distilled water and infusion diaphragm-electrolysis apparatus "Izumrud-SI" (mod 04) used "<http://www.ikar.udm.ru/i-si-04.htm>".

The curves of the activity of the structured liquid $[\Delta] [\Phi]$ versus time during the activation process ($t < t_0$), then ($t > t_0$) are shown in Figure 4.

Example 3

A method for measuring the activity of the structured liquid to the circuit diagram of Figure 3 (with its cascading the EMF electrodes).

The liquid was obtained by means of exposure from distilled water.

Types of stress: ultraviolet (UV); gaseous fractions, which were obtained by the electrolysis with diaphragm in the anode (A) and cathode (K); resolution BAS - Mikrohydrin (M), Upsarin UPSA with vitamin C (UUC).

As UVStrahlungsquelle the plant for water purification for pools UV-C was used with a lamp 35,000 TUV 4P SET5 (40 watt UV-C).

For the extraction of gaseous fractions (A), (K), the plant was "Izumrud-SI" (Mod 03) used (<http://www.ikar.udm.ru/i-si-03.htm>).

The results of the activity measurements for structured fluid (SF), which were prepared by various methods are listed in Table 2.

Table 2

Thus, the method of measuring members of the physico-chemical and biological activity of the structured liquids.

It can be used in various applications, specifically for the detection of characteristics and parameters of the biologically active substances, and the activated gas and liquid, which are located in thermodynamic non-equilibrium state with micro cluster structure or have been brought into this state by means of substances and fields.

N The use of small electrodes that are placed in various locations on the test liquid, makes it the basis of this method to visualize the cluster structure of liquids and produce their tomograms (EMF-graphy, ADS Tomography).

RU2299859
DEVICE FOR ACTIVATION OF THE LIQUIDS

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FIELD: chemical industry; food industry; medicine; production of devices for activation of liquids. ^ SUBSTANCE: the invention is pertaining to the devices for activation of liquids, and may be used for production of the liquids with the preset properties, treatment of the potable water and the mineralized water, activation of the infusion and medical solutions, and also the blood. The device contains the container for the activated liquid and the electrodes, one of which is made hollow. The hollow electrode is located inside the container for the liquid subjected to the activation and inside it there are the other electrodes arranged - one or more. At that the hollow electrode is fulfilled either continuous with one or several holes or in the form of the net, or is made out of the semi-permeable substance.; The device in addition is supplied with the thin wall installed on the outside the hollow electrode. The technical result of the invention is simplification of the design, the improved electrical safety and efficiency of treatment of the liquids (the increased efficiency of the device) and the extension of the device operational and functional capabilities. ^ EFFECT: the invention ensures simplification of the device design, the improved its electrical safety and efficiency of the liquids treatment, the extended its operational and functional capabilities.

RU2316374
METHOD OF PRODUCTION OF THE SOLID SUBSTANCE FROM THE CRYSTALLIZABLE LIQUID

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FIELD: applied physics; applied chemistry; methods of production of the solid substances from the different crystallizable liquids. ^ SUBSTANCE: the invention is pertaining to the field of the applied physics and the applied chemistry and may be used for production of the solid substances from the different crystallizable liquids. The crystallizable liquid before crystallization is exposed to the contact with the other liquid activated or being activated by means of electrolysis or at the expense of dissolution of the microhydrin. The contact with the crystallizable liquid is exercised directly or through the intermediate medium, which represents the thin wall, the liquid or of their combinations.; The invention allows to simplify the production process, to vary the structure of the crystallizable substance with the minimal power inputs. ^ EFFECT: the invention ensures simplification of the production process, the capability to vary the structure of the crystallizable substance at the minimal power inputs.

RU2092442
DEVICE FOR ELECTROCHEMICAL TREATMENT OF LIQUID

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