

**Resonance technologies**  
(analytical note)

New breakthrough high performance technology based on fundamental scientific approach.

***Historical note***

**General information, condition and urgency of the issue.**

- Resonance is the most stable state of motion in nature. Resonance mechanisms, devices and technologies have ~100 % efficiency and are the most optimum in physics, chemistry, biology and medicine and prospective for technique and production.
- In case of resonance the system radiates minimum and stores up maximum energy. In resonance condition minimum energy consumption is required for system destruction, stabilization and obtaining of predetermined condition.
- Evolution happens due to transition from one resonance state of motion to another one under the effect of external disturbing factors. Chaos and periodicity are two sides of single phenomenon - evolution and time.

Mathematically strict evidence of the provision that resonance is the most stable state of motion in nature results from the principle of least action and works of Poincare A., Lebedev P.N., Ovenden M.V., Chatayev N.G., Blekhman I.I., Shironosov V.G., etc. (see <http://www.ikar.udm.ru/sb/sb22.htm>). The principle of least action is the basis for equations and laws of physics, animated nature.

**Why you should work exactly with us? Σ(Theory + Experiment = Practice).**

***"Everything old is new again".***

Brief historical note instead of introduction.

*In 1989 group of foreign authors were awarded with Nobel Prize for nonresonance confinement of charged particles in electrodynamic traps without feedback. Resonance confinement is considered to be impossible so far. In opinion of foreign experts this direction means breakthrough in fundamental physics, biophysics and nanotechnologies. Thereafter different scientists developed new unique methods of diagnostics and nanobiotechnologies (nanoseparation) based on intravital research of cells dynamic in nonuniform electromagnetic fields (1994).*

*In 1974 in USSR Filatov A.I. and Shirmonosov V.G. theoretically and experimentally (for macrobodies) have demonstrated possibility of resonance confinement of bodies and particles (from elementary to macro) in nonuniform electromagnetic fields without external feedback.*

*The resolution of Science and Technique State Committee (STSC) of the USSR dated April 9, 1991 provided that funds from the budget determined for financing of preferred orientations of scientific and technical progress were allocated for research and development works on nanotechnology project - "New technologies based on selective spatial confinement of bodies (from elementary to macro) without feedback in nonuniform fields" ..*

SCIENCE AND TECHNIQUE STATE  
COMMITTEE OF THE USSR  
RESOLUTION

No.508

Dated April 9, 1991

About appropriation of state budget funds for  
financing research and development works on  
government order

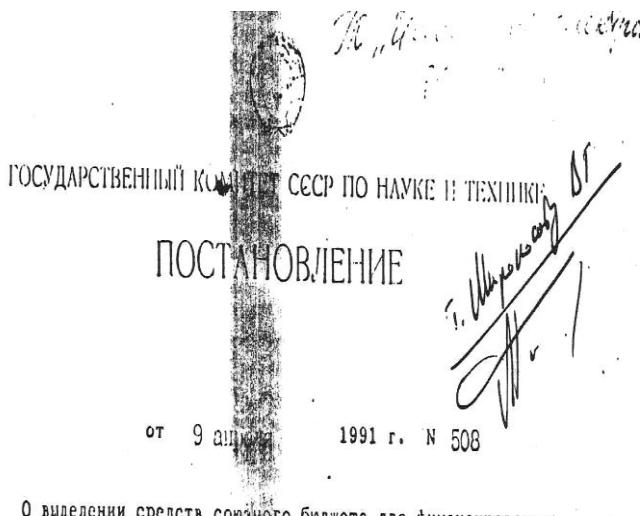
Science and technique committee of the  
USSR establishes the following:

1. To appropriate 1 900.000 RUB with distribution according to annex No.2 to Production Association "Izhevsk electro-mechanical plant" of Radio Industry Ministry for 1991 for research and development works on government order "New technologies based on selective space confinement of bodies and particles (from elementary to macro) in nonuniform fields without external feedback" in accordance with target as per annex No.1 from state budget funds determined for financing of preferred orientations of scientific and technical progress.

2. Conversion department of electronization, instrument engineering and communication of STSC USSR shall be charged with supervising the execution of the present resolution.

Representative of Science and Technique State  
Committee of the USSR

K.P. Laverov



О выделении средств союзного бюджета для финансирования  
научно-исследовательских и опытно-конструкторских работ  
по государственному заказу

Государственный комитет СССР по науке и технике  
ПОСТАНОВЛЯЕТ:

1. Выделить производственному объединению "Ижевский электромеханический завод" Минрадиопрома СССР на 1991 год для проведения научно-исследовательских и опытно-конструкторских работ по государственному заказу "Новые технологии на основе селективного пространственного удержания тел и частиц (от элементарных до макро) без внешней обратной связи в неоднородных полях" в соответствии с заданием согласно приложению N 1 из средств союзного бюджета, предусмотренных для финансирования приоритетных направлений научно-технического прогресса, 1900 тыс. рублей с распределением согласно приложению N 2.

2. Контроль за выполнением настоящего постановления возложить на Отдел конверсии Комплекса электронизации, приборостроения и связи ГКНТ СССР.

Председатель  
Государственного комитета СССР  
по науке и технике

К.П. Лаверов

*Then USSR broke up.*

### Basic scientific results.

Composite authors under the guidance of Shironosov V.G. received several conceptually new scientific and applied results in the sphere of resonance impact of fields on nonlinear physical and biological systems (<http://www.ikar.udm.ru/os-resul.htm>):

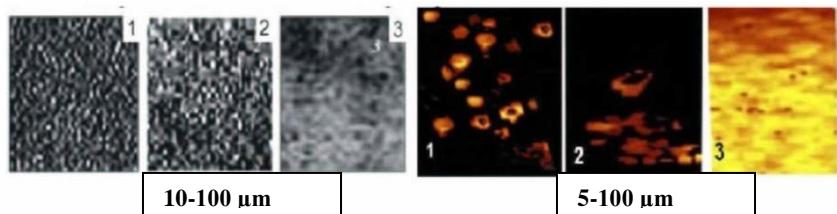
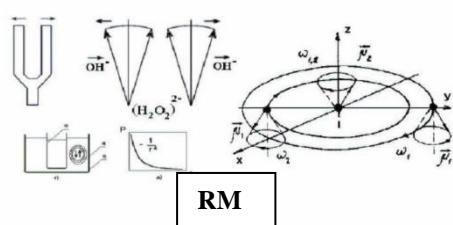
1. For the first time in 1974 theoretically and experimentally (for macrobodies) the possibility of resonance confinement of bodies and particles (from elementary to macro) in nonuniform electromagnetic fields without external feedback was demonstrated.

2. For the first time (1988-1990) was found accurate analytical solution of basic equation for simulation of the most complex nonlinear processes in different spheres of chemistry, biology, medicine, biophysics and physics (mechanics, electrodynamics, plasma physics, etc.) - equations of nonlinear pendulum with vibrating suspension point (Nonlinear ordinary differential equation with 3/2):

$$x'' + \xi_r x' + (\xi_0 + \xi_1 \cos \tau) \sin x - \xi_2 \cos(\tau+\varphi) \cos x = 0.$$

In 1988 was found the method which allows analytically with required accuracy to define dynamical stability areas of unstable states of composite multicomponent nonlinear systems of physical nature which don't have explicit small parameter under conditions of resonance and out of them (<http://ikar.udm.ru/pr-0.htm>).

3. For the first time in 1984 “ $1/R^3$ ” problem was solved theoretically. The possibility of resonance microclusters appearance (RM) was proved. Resonance microclusters are stable resonance states of motion in the system consisting of two and more oscillating dipoles due to nonlinear parametric resonance and electromagnetic overcoherent emission (SI) from RM.



4. For the first time phenomenon of liquids noncontact activation (LNA) was found during electrolysis without diaphragm (1999), on chemical (2002) and biochemical (2004, 2006) reactions which confirms existence of RM.

5. For the first time in 2004 in world practice the noncontact resonance activation plants were designed and are manufactured. They picked up prestigious international awards in Switzerland and Brussels (<http://ikar.udm.ru>).

6. The positive effect of activated media (water, air) on biosystems was demonstrated (1990-2014) (seed sprouting, fish breeding out of eggs, cells, blood corpuscle, when curing sick persons).



Контроль Активация  
Ускоренное выращивание рыб  
<http://www.ikar.udm.ru/sh26-3.htm>



Контроль Активация  
Ускорение ферментативных  
реакций  
<http://www.ikar.udm.ru/pr-1.htm>



Контроль Активация  
Ускорение прорастание семян  
(резонансная гидропоника)  
<http://www.ikar.udm.ru/sh15-2.htm>



Контроль Активация  
Лечение трофических язв  
<http://www.ikar.udm.ru/sh32-4-2.htm>



Контроль Активация  
Бесконтактная активация  
инфузионных растворов  
<http://www.ikar.udm.ru/pr-1.htm>

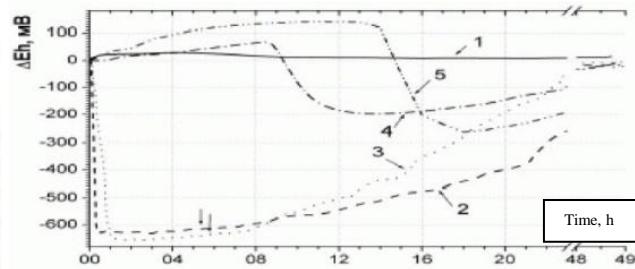
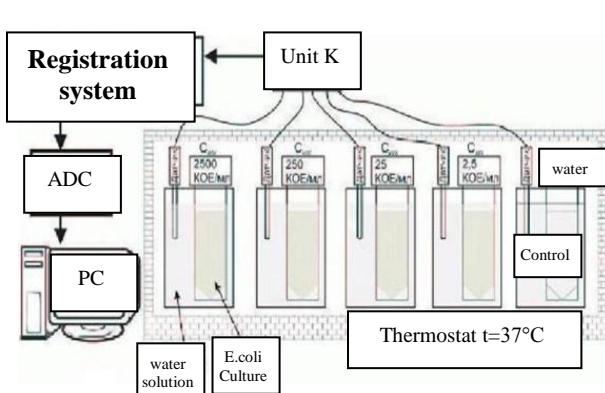
<b>Control Activation</b> Accelerated growing of fish
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<b>Control Activation</b> Accelerated enzymatic reactions
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<b>Control Activation</b> Trophic ulcer treatment
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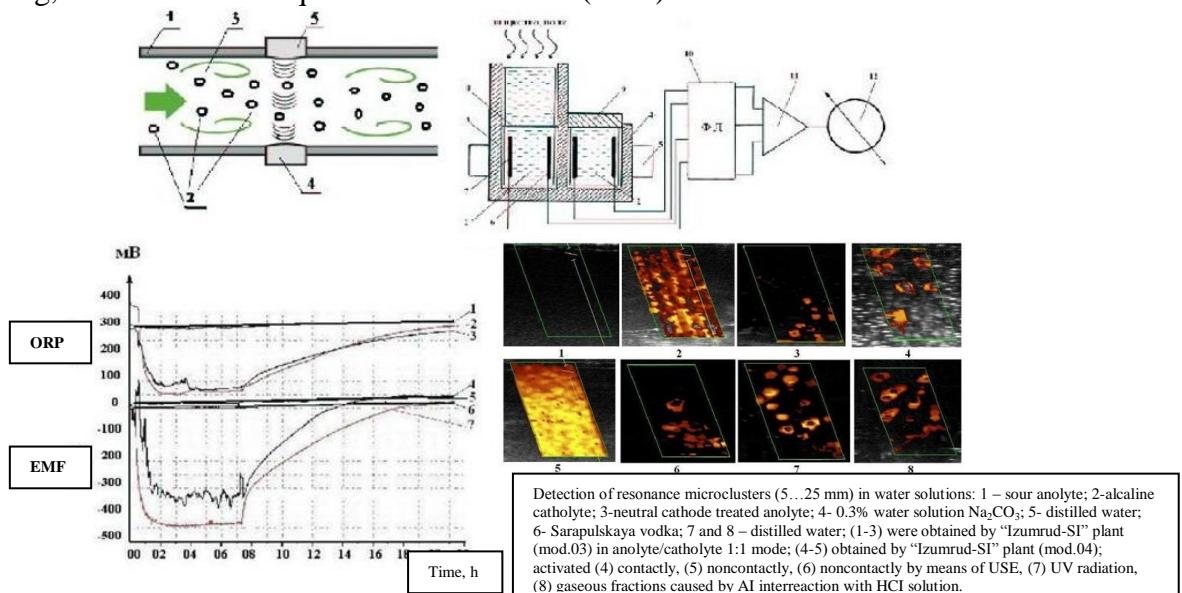
<b>Control Activation</b> Noncontact activation of infusion solutions
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7. The method and universal complex named "Ikar-Test" was developed for noncontact instant diagnostics of blood poisoning, water solutions and for noncontact registration of chemical, biochemical and physical processes in liquids (2006).



Examples of noncontact registration of different processes: 1-infusion solution (IS) 0.9% NaCl (control); 2 – IS during electrolysis without diaphragm; 3 – microhydrin dissolution process in H<sub>2</sub>O; 4- analysis of drinking water contamination with E.coli bacteria (1 CFC/ml); 5 – dynamics of lactic acid bacteria culture in milk.

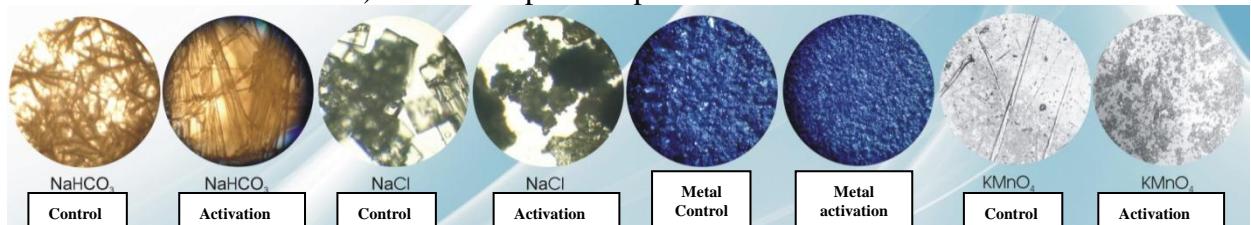
8. The following methods were developed: (2004): detecting, visualization of liquids cluster structure (2007).



Detection of resonance microclusters (5...25 mm) in water solutions: 1 – sour anolyte; 2-alcaline catholyte; 3-neutral cathode treated anolyte; 4- 0.3% water solution Na<sub>2</sub>CO<sub>3</sub>; 5- distilled water; 6- Sarapulskaya vodka; 7 and 8 – distilled water; (1-3) were obtained by "Izumrud-SI" plant (mod.03) in anolyte/catholyte 1:1 mode; (4-5) obtained by "Izumrud-SI" plant (mod.04); activated (4) contactly, (5) noncontactly, (6) noncontactly by means of USE, (7) UV radiation, (8) gaseous fractions caused by Al interreaction with HCl solution.

9. Basic methods were developed for prevention and treatment of different diseases including complex (HIV, oncological, drug abuse) with maximum curative effect. (2006-2012) <http://ikar.udm.ru/pr-1.htm>.

10. Nanotechnology for production of new class of condensed media being in unbalanced thermodynamic state with resonance microcluster structure (metals, semiconductors, nanoclusters, nanocarbon, superconductors, crystals, products, molecular chips and marks, liquids with resonance resonance microcluster structure) was developed and patented.



11. The following plant was designed, certified, patented and put into production: "Izumrud-SI" (mod.01-06) individual and multiple access plant (<http://ikar.udm.ru>) for production of drinking ionized water of the highest quality with predetermined mineral composition (microelements Ca<sup>++</sup>, Mg<sup>++</sup>, iodine ...) and antioxidant properties (pH, negative ORP); devices for production of water solutions with resonance microcluster structures – AM-RNT (disinfecting, sterilizing, detergent solutions of highest

quality <http://grnt.biz/news/21.html>, <http://ikar.udm.ru/pr-14.htm>) for disinfection and self-cleaning (recovery) of piping systems.

### **General information, market condition and urgency of resonance nonlinear technologies and devices.**

We offer resonance technologies (<http://grnt.biz>, <http://ikar.udm.ru>, <http://h2o.udsu.ru>) and their commercial usage for overcoming the global "crisis" which affected our civilization.

1. In our opinion "crisis" was caused by ([http://grnt.biz/pages/our\\_viewpoints.html](http://grnt.biz/pages/our_viewpoints.html)), development and mass usage of old energy losing technologies (1980-2012), depression and "linearization" in development of scientific and intellectual values which resulted in abrupt environmental degradation and health deterioration (<http://ikar.udm.ru/sb/sb4-0.htm>). Currently crisis is grows. According to theoretical calculations of Kurdyumov S.P. based on synergetics - peak of crisis is 2012.
2. Main method to be used for overcoming the crisis is development and integration of resonance technologies and devices – <http://grnt.biz>, <http://ikar.udm.ru>, <http://h2o.udsu.ru>, as resonance mechanisms, devices and technologies have ~100 % efficiency and are the most optimum and prospective for technique, production, physics, chemistry, biology and medicine (<http://ikar.udm.ru/rt.htm>). Resonance is the most stable state of motion in nature. In case of resonance the system loses minimum and stores up maximum energy. In resonance condition minimum energy consumption for destruction or stabilization of the system is required. Evolution happens due to transition from one resonance state of motion to another one under the effect of external disturbing factors. Chaos and periodicity are two sides of single phenomenon - evolution and time.
3. Institutes, research centers shall be created for leaders rather than the reverse. It is necessary to purchase teams and leaders rather than patents and developments generated thereby.

Currently considering the present situation and our developments (<http://ikar.udm.ru/rt.htm>; <http://ikar.udm.ru/pr.htm>; <http://ikar.udm.ru/files/pdf/ikar.pdf>; <http://ikar.udm.ru/sb/sb44-2.htm>) first of all we offer to implement gradually the following investment projects based on resonance technologies.

#### **1. Water issue.**

#### **2. Clinic**

**3. Technical projects** based on nonlinear parametric resonance (selective acceptance and transfer of energy, electromagnetic emission without losses; supersensitive fields sensors (electromagnetic, acoustic, hydrodynamic, gravity), energetics and production of hydrogen, hydrogen dioxide based on development liquids activation technologies - transfer of liquids into unbalanced thermodynamic state with dissipative structures).

**1. Water issue.** Integration of resonance technologies in spheres of water purification, water treatment, water supply will enable the following:

- solving of multiple problems in providing the population with drinking water of the highest quality;
- significant gaining in population health;
- increasing life duration;
- improving life quality;

Fields.

**1.1.** Construction of plants in the territory of Russia for production of water solutions with resonance microcluster structures - AM-RNT by analogy with plant in USA (<http://grnt.biz/news/21.html>, <http://ikar.udm.ru/pr-14.htm>) for disinfecting and self-cleaning (recovery) of piping systems, particularly from scale based on usage (<http://grnt.biz/news/21.html>, <http://ikar.udm.ru/pr-14.htm>). Production and **supply to consumer** disinfected **technical water** (<http://ikar.udm.ru/sb/sb44-1.htm>) based on AM-RNT and **further preparation of drinking water of the highest quality locally distributing to apartments**.

**1.2.** Large scale serial production of "Izumrud-SI" plants (mod.01os) (<http://ikar.udm.ru/i-si-01os.htm>, <http://grnt.biz/news/25.htm>, <http://ikar.udm.ru/sb/sb43-1.htm>, <http://ikar.udm.ru/sb/sb44-1.htm>, [http://ikar.udm.ru/files/pdf/230611\\_rosnano\\_udm.pdf](http://ikar.udm.ru/files/pdf/230611_rosnano_udm.pdf), [http://ikar.udm.ru/files/pic/230611\\_svg\\_shub.jpg](http://ikar.udm.ru/files/pic/230611_svg_shub.jpg))

for preparation of drinking ionized water of the highest quality with predetermined mineral composition (microelements Ca<sup>++</sup>, Mg<sup>++</sup>, iodine...) and antioxidant properties (pH, negative ORP, microclusters).

Currently the plant outperforms existing systems and analogs by its technical and economical parameters, it is protected with patents and know-how (RU 2299859, RU 0074909, RU 2316374, RU 2194017).

The plants are equipped with integrated controller, display, three flow-type sensors with two-level indicating system - monitoring of operation of the following systems: osmosis system (purification), activation (ionization), mineralization (optimization of mineral composition) of drinking water.

This field and production of plants is prospective for usage in apartments, houses, riser blocks of flats with distribution to flats and counters, for facilities, schools and for implementation of national program "Clean Water" (<http://ikar.udm.ru/sb44-1.htm>). Large-scale serial production of such plants will enable implementation of national programs "Clean Water" and "Health" and decrease incidence rate three times for the short period of time (<http://ikar.udm.ru/sb/sb49-6.htm>).

"Izumrud-SI" (mod.01os) may be manufactured also as additional units to reversed osmosis system. Considering issue of reversed osmosis systems ~ millions of pieces per month (including modern coolers, dispensers, street and office automatons), possibility of cooperation with series of countries - this field is very prospective.

Development of new technology and production of plants (<http://grnt.biz/news/22.html>, <http://ikar.udm.ru/pr-10.htm>) for preparation and bottling of drinking water and beverages (alcoholic and nonalcoholic) of the highest quality, biologically active with negative ORP, which keep their properties for along time (for months) based on resonance technologies for contact and noncontact activation of liquids, patents (RU 2299859, RU 0074909, RU 2316374, RU 2194017).

**1.3.** Development of agrobiotechnologies, technologies of food and processing industries of new generation based on activated water solutions - <http://ikar.udm.ru/pr-11.htm>, [http://ikar.udm.ru/files/pdf/100601-03\\_GRNT\\_ru.pdf](http://ikar.udm.ru/files/pdf/100601-03_GRNT_ru.pdf).

## 2. Clinic.

Production of universal plants "Izumrud-SI" (mod.04c, 04uni) for diagnostics, prevention, treatment of complex diseases based on immunity improving ([http://ikar.udm.ru/files/pdf/gr\\_awik\\_therapy.pdf](http://ikar.udm.ru/files/pdf/gr_awik_therapy.pdf), <http://ikar.udm.ru/pr-8.htm>, [http://ikar.udm.ru/files/pdf/gr\\_ikar-test.pdf](http://ikar.udm.ru/files/pdf/gr_ikar-test.pdf)), development of new biotechnologies and production of new substances (<http://ikar.udm.ru/pr-7.htm>, [http://ikar.udm.ru/files/pdf/gr\\_ntech.pdf](http://ikar.udm.ru/files/pdf/gr_ntech.pdf)).

Creation of unique diagnostic, medical and preventive centers for analysis, prevention and treatment with guarantee based on resonance effect of ions, molecules, generators fields on human organism (<http://www.ikar.udm.ru/avik.htm>, <http://ikar.udm.ru/pr-8.htm>, [http://ikar.udm.ru/pdf/gr\\_ikar-test.pdf](http://ikar.udm.ru/pdf/gr_ikar-test.pdf), [http://ikar.udm.ru/pdf/gr\\_ntech.pdf](http://ikar.udm.ru/pdf/gr_ntech.pdf), <http://ikar.udm.ru/pdf/sb44-2.pdf>, <http://ikar.udm.ru/pr-1.htm>).

**3. Technical projects** based on nonlinear parametric resonance (<http://ikar.udm.ru/pr.htm> , <http://grnt.biz/pages/presentations.html> <http://grnt.biz/pages/video.html>, <http://grnt.biz>).

P.S. projects presentations and video, TV:

<http://grnt.biz/pages/presentations.html>, <http://grnt.biz/pages/video.html>

Best regards,  
Valentin Shironosov

GRNT - <http://grnt.biz>

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**RF patents:**

- Shironosov V.G. Liquids activation device. Patent for useful model RF 00145022 dd. 22.07.2014. International application for invention as per RST/RU2014/000491 dd. 04.07.2014.
- Shironosov V.G. Liquids activation device. Patent for useful model RF 00138740 dd. 18.07.2014. International application for invention as per RST/RU2014/000492 dd. 04.07.2014.
- Shironosov V.G. Liquids activation device. Patent for invention RF 0074909 dd. 20.11.2007.
- Shironosov V.G., Kurganovich V.S. Liquids activation device. Patent for invention RF 2299859 dd.19.09.2005.
- Shironosov V.G. Method of obtaining of solid substance from crystallized liquid. Patent for invention RF 2316374 dd.19.11.2004.
- Shironosov V.G., Shironosov E.V. Liquids noncontact activation device. Patent for invention RF 2194017 dd.10.04.2000.
- Shironosov V.G., Karizhskiy P.A. Device for liquids electrochemical treatment. Patent for invention RF 2076073 dd. 9.08.1995 .
- Shironosov V.G., Minakov V.V., Shironosov O.V. Air ionizer (options). Patent for useful model RF 0044514 dd. 19.11.2004.
- Shironosov V.G., Karizhskiy P.A., Vetoshkin I.P. Device for liquid electric activation (options). RF 0002811 dd. 31.08.1995.
- Shironosov V.G., Karizhskiy P.A., Vetoshkin I.P. Device for liquids electrochemical treatment. Patent for invention RF 2092442 dd. 16.10.1995.
- Shironosov V.G., Voronchikhin O.V. Current stabilizer for water electrochemical treatment devices. Patent for invention RF 014654 dd. 28.06.1999.
- Shironosov V.G. Minakov V.V. Device for liquids electrochemical treatment (options) Patent for invention RF 0014654 dd. 28.06.1999.
- Shironosov V.G., Ivanov V.B. Water supply system. Patent for invention RF 0024214 dd.15.03.2002.
- Ivanov V.B., Minakov V.V., Shironosov V.G. Water supply systems. Patent for invention RF 0023302 dd. 27.02.2002.
- Shironosov V.G. Invention certificate of authorship USSR 167981 dd. 4.02.1981.
- Shironosov V.G. Method of definition of structured liquid activity. Application for invention RF No.2007127132 dd. 16.07.2007. International application for invention as per RST A18058 dd. 20.11.2007.
- Shironosov V.G., Kuznetsov E.V. Method of detecting cluster structure and microclusters of liquid. Application for invention RF No.2007127133 dd. 16.07.2007. International application for invention as per RST A18056 dd. 20.11.2007.
- Shironosov V.G. Liquids activation device. Patent for useful model RF 0074909 dd. 20.11.2007. International application for invention as per RST A18057 dd. 20.11.2007.
- Mirsayetov O.M., Chirkov N.A., Abashev R.B. Shironosov V.G. Polymeric solution preparation method. Application for invention RF No.2006129609/04(032171) dd. 15.08.2006.

**Publications:** <http://ikar.udm.ru/os-resul.htm>

**Medals and diploma:**

- 1994, bronze medal and diploma at 22-nd International exhibition of inventions in Geneva-1994. Switzerland. Medicine complex for treatment and diagnostics based on resonance.
- 2001, Medal and diploma at All-Russian contest 2000. "Woman-Director of the year".
- 2003, Silver medal and diploma at world innovations exhibition "Brussels - Eureka, 2003". Belgium. Liquids contact-noncontact activation device.
- 2004, bronze medal and diploma at 32-nd International exhibition of inventions in Geneva-2004. Switzerland. Liquids noncontact activation device.
- 2006, Golden medal and diploma at international sales exhibition "Informatics-Communication-Electronics-2006". Khabarovsk Plazmatron.

- 2010, Golden medal, diploma and first place at III Russian forum "Russian capital to Russian innovations" and VIII Fair of business-angels and innovators in the field of "Agrobiotechnologies of new generation". Agrobiotechnologies, food and processing industry technologies of new generation based on activated water solutions. Izhevsk.
- 2011, Medal and Certificate of Merit from Udmurt Republic President for long conscientious work.



**1994**  
Switzerland  
Geneva



**2001**  
Russia  
Moscow



**2003**  
Belgium Brussels



**2004**  
Switzerland  
Geneva



**2006**  
Russia  
Khabarovsk



**2010**  
Russia  
Izhevsk





2011  
Russia  
Izhevsk



## Presentations:

<http://grnt.biz/pages/presentations.html>



### Purification and disinfection of sewage water

Treatment by means of RNT purifies surfaces and enable exclusively high level of sewage water disinfection. After usage of RNT reproduction of bacteria becomes impossible in sewage water.



### Development of biologically active agents for treatment of consumptives

Biologically active agents based on solutions with negative ORP improve blood properties (improve leukoformula, decrease quantity of lymphocytes and erythrocyte sedimentation rate, etc.), halve the terms of abaciling, reduce intoxication degree, etc.



### Cleaning of impoundments from blue-green algae

New effective and saving method of impoundments cleaning from blue-green algae is approved by scientists community. This method is based on resonance technologies. Destruction of cell structure of blue-green algae by means of electromagnetic energy. [Video](#).



### Cultivation of Chlorella suspension based on activated media

Chlorella abundant in protein, biocatalysts, chlorophyll, vitamins and cellulose. It exercises a salutary influence over immune system, purifies organism, removes cancerogenic substances from blood, etc. Chlorella suspension with negative ORP affects an organism with stronger therapeutic intervention.



### Condensed media production plants

Production of plants for generation of drinking water of the highest quality with antioxidant properties, predetermined mineral composition and resonance microcluster structures and plants for sterilizing and detergent solutions, etc.



### RNT - Resonance Nonlinear Technologies

Comparing to another technologies of water treatment our processing and production of activated water solutions, solid substances and AM-RNT (activated condensed media based on RNT) has a series of advantages in efficiency and performance, production cost, safety, storage.

## Video:

<http://ikar.udm.ru/media/>, <http://grnt.biz/pages/video.html>



### Resonance nanotechnologies and water activation

RNT - Resonance Nonlinear Technologies. Pincers and scalpel for nanotechnologies (htm). [International nanotechnologies forum, Moscow, 03.12.2008 \(pdf\)](#). Activated water - water in unbalanced thermodynamic condition (UTC) with excited resonance microcluster structures (RM - ball-light analogs, isolated vortex) and overcoherent electromagnetic emission (SI).



### New automaton from Izhevsk

Unique plant for immunity improving and at-home preparation of ionized drinking water with antioxidant properties and negative ORP, saturated with calcium, magnesium ions and selenium, fluorine, etc. (charge and mineral composition can be adjusted). [Technologies and Devices from Russia - Science, Techniques and Production Composition](#).



### How to reduce soil acidity?

Innovative method of controlling soil acidity. This method is based on resonance technologies. More saving and effective than lime treatment and other currently existing methods. Possibility to control soil Ph for each crop. Powerful impulse for agricultural sector development.



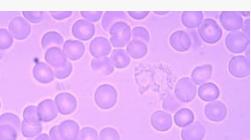
### Cleaning of impoundments from blue-green algae

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### Calfpen treatment with anolyte aerosol /

Electrically activated solutions both anolytes and catholytes are widely used in medicine. Most often the anolytes are used for disinfection and sterilization of tools, rooms, equipment, articles of care, skin and mucosa, etc.



### Blood purification

[Cleaning of blood vessel from all sores by means of noncontactly activated infusion solutions ; AVIK - resonance therapy - guaranteed treatment ; adaptive treatment method; usage of noncontactly activated infusion solutions for prevention of post-surgery pancreatitis for oncologically ill people; water - the source of biological and electrical energy.](#)



### Chimney-sweeper based on XTC

[Disinfection and self-cleaning \(recovery\) of piping systems based on usage of water solutions with resonance microcluster structures . We offer the product and technology which provide cost-saving recovery of pipeline systems capacity to initial state and enable safe disinfection and high quality of water throughout transportation.](#)



### Water burns

[For the first time existence of isolated vortexes in water was proved by means of Doppler tomography ultrasonic examination method \(dissipative unbalanced resonance structures\)- ball-light analogs with overcoherent electromagnetic emission \(SI\)..Transfer of liquids into unbalanced thermodynamic condition can be performed by means of substances, physical impacts \(fields, currents...\) including based on chemical and biochemical reactions.](#)



### "Aqua vitae" in Cherepovets

It is known that human organism cells are negatively charged. Diseases appear when this charge is reduced below the standard. Accordingly water shall be negatively charged in order to be useful for us. Such water is easily distributed over the body transmitting its energy to cells. Unique plant will help to prepare negatively charged water with predetermined mineral composition ["Izumrud"](#).



### Levitation is simple

It happens in science. First - that cannot be!!! Then - Hm..., maybe?! At last - This is... Apparently this is... simple - <http://ikar.udm.ru/levit.htm>. GRNT - Global Resonance Nonlinear Technologies - <http://ikar.udm.ru/rt.htm>, <http://ikar.udm.ru/sb44-2.htm>.



### Resonance technologies in questions and answers

Interview of deputy director for research scientific work CJSC S&RC "IKAR"  
"What shall we do?!" Crisis or old things stagnation?! Part 1

P.S. [http://ikar.udm.ru/files/pdf/ikar\\_2013\\_en\\_ru.pdf](http://ikar.udm.ru/files/pdf/ikar_2013_en_ru.pdf),  
<http://ikar.udm.ru/sb/sb44-3.htm>, <http://ikar.udm.ru/sb/sb4-0.htm>, [http://grnt.biz/pages/our\\_viewpoints.html](http://grnt.biz/pages/our_viewpoints.html)  
*Motion picture company "Quantum water" from IC "GRNT"*



### Resonance and Water

Interview of deputy director for research scientific work CJSC S&RC "IKAR" - "What shall we do?!" Crisis or old things stagnation?! Resonance and Water?! Part 3

P.S. [http://ikar.udm.ru/files/pdf/ikar\\_2013\\_en\\_ru.pdf](http://ikar.udm.ru/files/pdf/ikar_2013_en_ru.pdf),  
<http://ikar.udm.ru/sb/sb44-3.htm>, <http://ikar.udm.ru/sb/sb4-0.htm>,  
[http://grnt.biz/pages/our\\_viewpoints.html](http://grnt.biz/pages/our_viewpoints.html)

*Motion picture company "Quantum water" from IC "GRNT"*

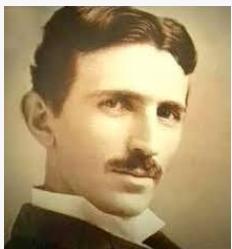


### Resonance and Energy

Interview of deputy director for research scientific work CJSC S&RC "IKAR" - "What shall we do?!" Crisis or old things stagnation?! Resonance and Energy?! Water and air ionizing, secrets of energy, longevity, immunity, hydrogen energetics and 100% peroxide - which one is more important for energetics, resonance and resonance microclusters, emission...

P.S. [http://ikar.udm.ru/files/pdf/ikar\\_2013\\_en\\_ru.pdf](http://ikar.udm.ru/files/pdf/ikar_2013_en_ru.pdf),  
<http://ikar.udm.ru/sb/sb44-3.htm>, <http://ikar.udm.ru/sb/sb4-0.htm>,  
[http://grnt.biz/pages/our\\_viewpoints.html](http://grnt.biz/pages/our_viewpoints.html)  
[http://grnt.biz/pages/our\\_viewpoints.html](http://grnt.biz/pages/our_viewpoints.html)

*Motion picture company "Quantum water" from IC "GRNT"*



### Resonance and Tesla

Interview of deputy director for research scientific work CJSC S&RC "IKAR" - "What shall we do?!" Crisis or old things stagnation?! Resonance and Energy?! Resonance and Water?! Resonance and Tesla?!

Water and air ionizing, secrets of energy, longevity, immunity, hydrogen energetics and 100% peroxide - which one is more important for energetics, resonance and resonance microclusters, emission...

P.S. [http://ikar.udm.ru/files/pdf/ikar\\_2013\\_en\\_ru.pdf](http://ikar.udm.ru/files/pdf/ikar_2013_en_ru.pdf),  
<http://ikar.udm.ru/sb/sb44-3.htm>, <http://ikar.udm.ru/sb/sb4-0.htm>,  
[http://grnt.biz/pages/our\\_viewpoints.html](http://grnt.biz/pages/our_viewpoints.html)  
[http://grnt.biz/pages/our\\_viewpoints.html](http://grnt.biz/pages/our_viewpoints.html)

*Motion picture company "Quantum water" from IC "GRNT"*

### Resonance, Water and Bio "Terrorism"

Interview of deputy director for research scientific work CJSC S&RC "IKAR" - "What shall we do?!" Crisis or old things stagnation?! Resonance and Energy?! Resonance and Water?! Resonance, Water and Bio "Terrorism" Resonance and Tesla?!

Water and air ionizing, secrets of energy, longevity, immunity, hydrogen energetics and 100% peroxide - which one is more important for energetics, resonance and resonance microclusters, emission...

P.S. [http://ikar.udm.ru/files/pdf/ikar\\_2013\\_en\\_ru.pdf](http://ikar.udm.ru/files/pdf/ikar_2013_en_ru.pdf),  
<http://ikar.udm.ru/sb/sb44-3.htm>, <http://ikar.udm.ru/sb/sb4-0.htm>,  
[http://grnt.biz/pages/our\\_viewpoints.html](http://grnt.biz/pages/our_viewpoints.html)  
[http://grnt.biz/pages/our\\_viewpoints.html](http://grnt.biz/pages/our_viewpoints.html)

*Motion picture company "Quantum water" from IC "GRNT"*



### Homemade wonder yoghurt - super receipt

Preparation of alive yoghurt with negative ORP at home.

P.S. [Technology @ GRNT http://ikar.udm.ru/i-si-04.htm](http://ikar.udm.ru/i-si-04.htm), [http://ikar.udm.ru/files/pdf/ikar\\_2013\\_en\\_ru.pdf](http://ikar.udm.ru/files/pdf/ikar_2013_en_ru.pdf),  
[http://grnt.biz/pages/our\\_viewpoints.html](http://grnt.biz/pages/our_viewpoints.html)

*Motion picture company "Quantum water" from IC "GRNT"*

**Technologies:**

<http://ikar.udm.ru/pr.htm>, <http://ikar.udm.ru/rt.htm>

1. Resonance technologies with ~100% efficiency- <http://ikar.udm.ru/pr-0.htm>, <sb/sb44-2.htm>,  [597 Kb](#), [files/zip/rusnano\\_08.zip](files/zip/rusnano_08.zip)~40 Mb, <http://www.inno.ru/project/29947>.
2. Noncontact activation of liquids (infusion solutions and drug substances, beverages, tea, coffee, drinking water including medicinal baths, pools; biotechnologies intensification; extension of life) - <http://ikar.udm.ru/pr-1.htm>, [i-si-04\\_uni.htm](i-si-04_uni.htm), <sb/sb43-3.htm>, <sb/sb45-1.htm>,  [sb/sb17-4.htm](#), <http://www.inno.ru/project/23373/>.
3. Solving of problem related to providing country population with biologically active, clean drinking water, disinfecting, sterilizing and detergent solutions <http://ikar.udm.ru/pr-2.htm>, Drinking water of the highest quality - <sb/sb43-1.htm>, <sb/sb44-1.htm>,  [307 Kb](#), <http://inno.ru/project/29499>, Solving of problem related to water supply, water disposal, water treatment and providing the population with drinking water of the highest quality based on activated water solutions <http://ikar.udm.ru/pr-2.htm>, Solving of problem related to water supply, water disposal, water treatment and providing the population with drinking water of the highest quality based on activated water solutions  [265 Kb](#), <http://grnt.biz/news/25.html>.
4. Solving of problems related to deionization, dedusting, sterilizing of air - <http://www.ikar.udm.ru/pr-3.htm>.
5. Serial production of environmental safety plants and systems for home, office and hospitals - <http://ikar.udm.ru/pr-4.htm>, <http://www.inno.ru/project/23885/>.
6. Implementation of laboratory research, educational stands and courses for nonlinear dynamic systems in physics, chemistry and biology for schools and universities - <http://ikar.udm.ru/pr-5.htm>, <sb/sb45-2.htm>,  [1,2 Mb](#),  [1,2 Mb](#)
7. Project "X-autostable plasma" - <http://ikar.udm.ru/rt.htm>, as per works of Nicola Tesla, Kapitsa P.L. [Nature of ball lighting](#) and Shironosov V.G. [Physical nature of ball lighting](#).
8. Nanotechnology for obtaining condensed media with resonance microcluster structure based on noncontact activation of liquids - <http://ikar.udm.ru/pr-7.htm>, <files/zip/pr-7.zip>, [36 Kb](#), <http://www.inno.ru/project/23714/>, patent  [RU 2316374 2,9 Mb](#),  [231 Kb](#).
9. "Ikar-test" complex for noncontact registering of chemical, biochemical and physical processes in water solutions - <http://ikar.udm.ru/pr-8.htm>, <http://www.inno.ru/project/298471>,  [259 Kb](#).
10. Compact, portable medical and preventive AVIK-complex (Air, water, ion, EHF therapy) with methods for prevention and guaranteed treatment - based on resonance effect of fields from ions, molecules, generators on human organism - <http://ikar.udm.ru/avik.htm>,  [345 Kb](#).
11. Technology for preparation and bottling of biologically active drinking water, water solutions (beverages, cognac, milk, gasoline...) with ORP < - 900 mV, keeping their properties for a long time (months) - <http://ikar.udm.ru/pr-10.htm>, <http://grnt.biz/news/22.html>.
12. Agrobiotechnologies, food and processing industry technologies of new generation based on activated water solutions - <http://ikar.udm.ru/pr-11.htm>,  [0,26 Mb](#).
13. [Usage of activated water solutions for reducing the level of population morbidity rate in Udmurt Republic 1.5-2 times during 3 years](#) -  [0,24 Mb](#), [190511\\_udm.jpg](#).
14. Serial production of plants generating drinking water, disinfecting, sterilizing and detergent solutions of the highest quality, new substances based on resonance nanotechnologies <http://ikar.udm.ru/pr-13.htm>-  [0,2 Mb](#), [230611\\_rosnano\\_udm.jpg](#), [230611\\_svg\\_shub.jpg](#).
15. Disinfection and self-cleaning (recovery) of piping systems based on usage of water solutions with resonance microcluster structures - <http://ikar.udm.ru/pr-14.htm>, <http://grnt.biz/news/21.html>.
16. Development of biologically active agents with antioxidant properties and negative ORP for prevention and treatment ([bee-moth extract](#), [chlorella drink](#), [solutions for injection](#), [substances](#)...).