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New Medical Technologies Foundation, BIP International Association Research Center



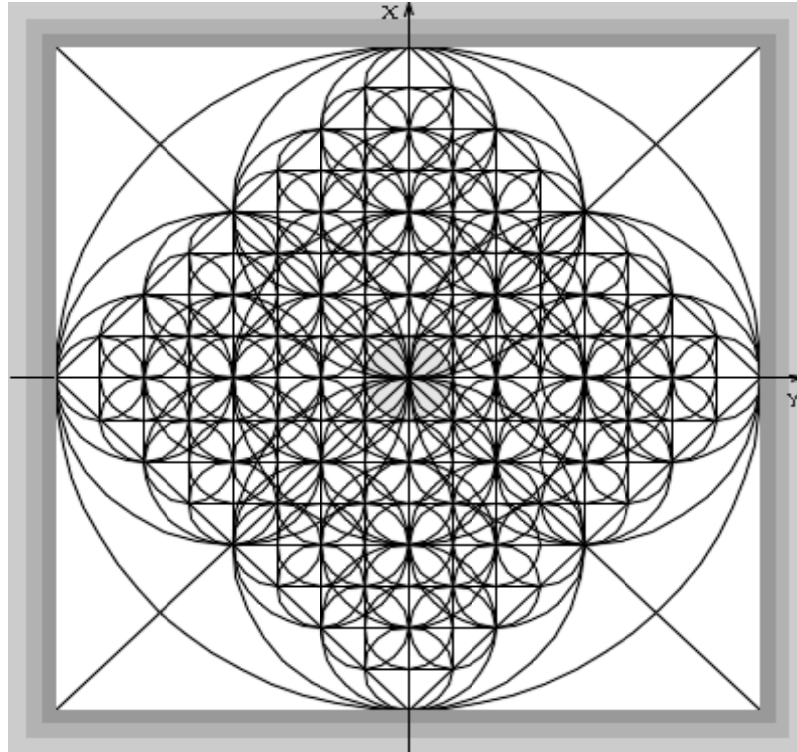
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Matrix/Aires Ecological Converter

The Matrix/Aires Ecological Converter concept can be briefly set forth in the form of the following statements:

1. Any material body is a complex dynamic field structure, because atom nuclei, containing virtually all substance mass, take up a very insignificant part of its volume, and the structure itself is formed and supported due to the interaction of outer electron shells of the atoms, constituting that structure.
2. Any complex material structure, namely a crystal or a DNA molecule, is a fractal object. And an ideal crystal is a periodical fractal object. Defects in a crystal of any type (admixtures, empty lattice points etc.) are breaks in periodicity.
3. A biological organism is a hypercomplex formation whose structure, especially during its formation, is an open self-regulating system. According to the principles of self-organization and physics of open systems, i.e. systems exposed to the influence of substance or energy inflow, coming through its borders from without; for the system to switch to the mode of generating spatially arranged structures by external action, its magnitude must reach a certain critical value. Here, the external action must be purposeful in order to ensure that the system enters a more qualitative state.
4. Since any material structure generates a periodical field of chemical bonds, electromagnetic in nature, and is supported by the same field, the most appropriate agent of external action must also be considered the electromagnetic field, coordination of which determines the structure perfection.

5. The above thesis is the center of the present project, since resonance interaction of the system with the actuating factor – in this case, with its own coherently converted electromagnetic field – is the most prospective method to control the self-regulation process. Coordinated resonance interaction, including both spatial resonance and resonance of oscillation frequency of the field and substance lattice (cytostructure), will facilitate the reconstruction process directed at improving its periodicity (defect elimination) with minimum (optimal) energy volumes supplied. Such resonance interaction, by virtue of the fractality principle, is achieved not only due to dimensional agreement of the field and bioform structures, but also due to their multiple scaled similarity. Note that the resonance interaction first of all requires obtaining precise resonance conditions, and not intensity of the field affecting the substance, which is provided by restructurization and coherent conversion of the object's own radiation, using an AIRES converter.

6. Research performed in cooperation with the AIRES Foundation, S.I. Vavilov State Optical Institute and St Petersburg State University of Information Technologies, Mechanics and Optics revealed that the fractal-matrix diffraction gratings designed by AIRES possess the properties of synthesized holograms and ensure structurization of broadband electromagnetic fields by converting them into a coherent state, and the field structures produced correspond to the required type of plane and three-dimensional crystal lattices. Such coherently converted fields will naturally interact in a resonant way with the structure of the biological organism that generates those fields [1, 2, 15, 16].

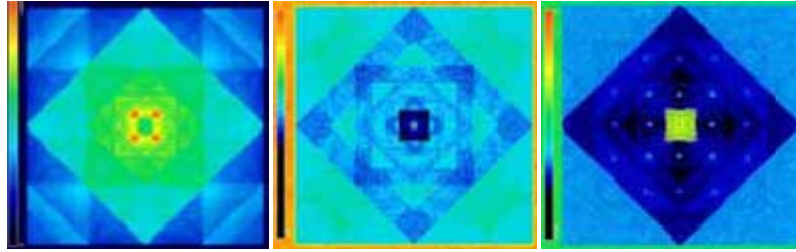
7. Research done by the AIRES New Medical Technologies Foundation in cooperation with St Petersburg State Electrotechnical University "LETI" (Professor V.I. Margolin, Professor V.A. Moshnikov, Department of Microradioelectronics and Radio Equipment Technology); with St Petersburg State University (Professor O.V. Frank-Kamenetskaya, Chair of Crystallography) [17-24]; S.I. Vavilov SOI (Professor M.G. Tomilin) [25]; Research Center S.I. Vavilov SOI (G.S. Melnikov) [4-6, 8-11]; SPSU ITMO (Professor G.N. Lukyanov, Tarlykov), I.I. Mechnikov St Petersburg State Medical Academy (Professor V.I. Slesarev) [12-14], Bekhterev Research Institute of Psychoneurology and I.P. Pavlov Institute of Physiology, RAS (Candidate of Biological Sciences L.A. Rybina) [26, 27] showed that in the result of coherent conversion of the object's own radiation, an AIRES circular fractal-matrix diffraction grating becomes a universal catalyst for ordered synthesis of different types of matter independently of its physical characteristics.

The construction of an AIRES ecological converter that converts broadband electromagnetic radiation into a coherent form is a systemically arranged configuration of plane circular diffraction matrixes, constituting multilevel resonance volumes. The interaction causes restructurization and coherent conversion of natural and technogenic electromagnetic radiation. Thus, inside and around the converter, a coherent electromagnetic field of high intensity is synthesized, and it is able to perform resonance correction of physical fields of the environment.

There is a tremendous distance between the well-known Egyptian pyramids, which in fact are Fabry-Perot resonators, and the AIRES converter, purposefully synthesizing programmable broadband coherent conversion of an electromagnetic field. It is one thing to increase the density of an electromagnetic field structure due to the form effect, and a totally different thing – to eliminate conflicts in order to produce a spatial area of high-grade

Coordination of amplitudes, phases and vectors of broadband radiations with a high structural density and precise arrangement of the required fractal construction [3, 5]. Sectional view of the inside of the model at a height of $1/3 H$	Sectional view below the model at a depth of $1/2 H$	Sectional view above the model at a height of $2H$
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AIRES converter



'Hunger' pyramid

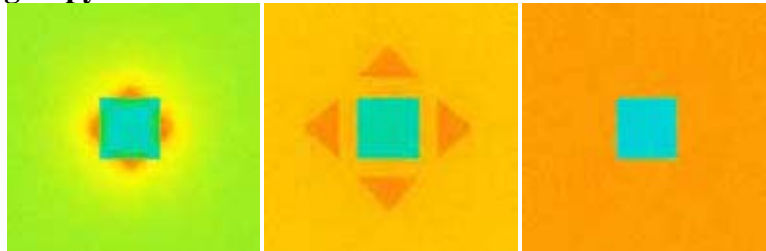


Fig. 10. Comparison of model calculations of electromagnetic radiation in an AIRES converter and in a 'Hunger' pyramid.

Thus, if plane passive AIRES circular diffraction gratings (CDGs), with topological lines 1 micron thick and with the topology density defined by the ratio of $Stopol/S_{sub.}$, are used to build one sixth of a three-level cubic fractal grating (a pyramid) with all its components – which is a complex multilevel structure, including about 1000 units – then the resulting construction will be able to efficiently restructure electromagnetic radiations of the existing environment. That visible and invisible range of sun and cosmic radiation, electromagnetic field of natural and technogenic character come through the complex of passive diffraction matrixes, which is a spatial-wave coherent converter, and form a multilevel three-dimensional structural composition of highly integrated character.

In the result of universal coherent conversion of electromagnetic field components, the converter synthesizes a broadband coherent electromagnetic field of high intensity that is able, in its turn, to perform similar counter-correction of similar fields of geophysical space and the environment.

In the process of its vital activity, a biological organism radiates and absorbs waves of a wide electromagnetic spectrum. That process is characteristic of all parts of the organism, from individual cells to internal organs.

The physical channel, controlling and implementing the development and operational programs of the human organism, is heterogeneous and is represented by electrical, electromagnetic, acoustic fields and polarization domains. At the level of material base from an atom to a multicellular organism, electromagnetic influence plays the first part in regard to functioning of a biological object. The intensity of the influence depends on the value of an electric charge.

As of atomic-molecular level, all processes in a biological object are triggered by a change in the values of electrical charges, because macromolecules are semiconductors or dielectrics and constitute dipoles that can form domains, and often because macromolecule structures possess the properties of liquid crystals or electrets. When the macromolecule status changes, the physical properties ensure generation of electromagnetic fields and waves. In terms of quantum electrodynamics, it is accounted for by the following. Primary accumulation of energy of electrostatic field, resulting from metabolism, causes a static nonequilibrium state, which initializes electric current. Ions begin to move and generate mechanical oscillation of the macromolecule. Hence the energy is accumulated in the form of mechanical oscillation, and its dissipation is achieved through emanation of electromagnetic waves.

Radiations of the human organism are quite diverse in the spectrum of wave characteristics and their physical nature. Those radiations first of all differ in frequency-wave characteristics.

Live systems belong to open non-equilibrium systems, a fundamental property of which is their oscillatory nature. It is mathematically proven that all processes in nature have oscillatory character. In any organism, there are simultaneous oscillations of different frequencies at different levels of its structure: the levels of atoms, cells, organs, and as different processes occur, various oscillations and wave emissions appear. Abundance of environmental rhythms is adequate to their profusion in biological systems. Biological rhythms are a manifestation of auto-oscillatory processes in biological systems.

Existence of an organism is possible due to coordination and synchronization of all oscillations. Synchronization facilitates stability of the system, optimizes transfer processes of a substance, energy and information and is one of the most important factors of self-organization of complex systems and their harmonization.

According to scientific views:

- the primary molecular model and object in millimeter wave (EHF) impact are receptor proteins on cell membranes;
- influence upon receptor proteins is achieved through water molecules that mainly absorb EHF radiation;
- direct receivers of EHF radiation are free water molecules that pass a part of their energy to molecules of bound hydrated water;
- for biological effect of EHF influence, critical hydration of proteins is of principal significance, where proteins transform from one (functionally passive) state to another (functionally active);
- receptor proteins that have undergone phase transformation have a dominant influence on all processes occurring in cells.

The spectrum of electromagnetic oscillations emitted by the cells themselves, including oscillations in the EHF range, bears information on the character of changes or disturbances in the state of the cells. And, which is even more important, external impact of this very spectrum has an active influence on recovery and maintenance processes of cell homeostasis.

Resonance correction of biological hypercomplex systems implemented by means of circular diffraction gratings (CDGs) is based on the theory of waves and resonance amplification of return traveling waves emitted by an organism. In the result, the CDG receives all types of electromagnetic radiation of the biological form. The matrix scheme consists of their intersecting circumferences of different size, circumscribed by lines of conductive materials and forms a multitude of oscillatory circuits with both series connections and parallel connections of the inductance L , capacity C and ohmic resistance R , where induced resonance oscillations with their own frequencies appear. Those oscillations are induced by electromagnetic radiation, coming from organs, tissues and internal microflora of the organism.

CDGs are:

- phase analyzers of spatial frequencies, separating a discrete frequency grid in the reflected radiation they admit;
- oscillators of an ordered raster structure, upon which a field structure of auto-interference of spatial frequencies related to the topology fractalization centers is superimposed;
- graphically synthesized holograms that form a stable spatial structure with regular peaks and troughs of the generated field with harmonic ratios of frequencies and amplitudes, phases and vectors.

Thus, any CDG, being a universal spatial-wave coherent converter, rearranges oscillations of any type of electromagnetic field (background, technogenic, biological) into harmonic components. An electromagnetic pulse, coming through the CDG, activates the fractal field due to interference of the flows that passed through the diffraction grating or were reflected from it. As a result, in the area under effect, a more harmonic and ordered background space is formed. Thus, due to passive interaction of

electromagnetic radiation of the bioform with the CDG, peak field abnormalities are efficiently corrected, and structural characteristics of physical fields of the environment are stabilized in the wide spectral range.

Interference of traveling and return waves after their resonance conversion by means of a CDG results in the appearance of coherent standing waves.

The wave is reflected from hard surfaces of CDRs in antiphase. Allowing for certain pliability of material, oscillation energy passes from the first milieu (subcutaneous areas) to the second one (matrix material). Consequently, the amplitude of the reflected wave is less than that of the incident wave, but at the same time the combination of a standing wave and a wave traveling in antiphase (both waves are coherently converted) appears in the former milieu.

In the milieu of the limited size λ (cell) a dead-water can appear only if the λ value is divisible by an integer

number of half-waves ($\lambda/2$). With a vast spectrum of waves coherently converted by a CDG, it is always possible. When interacting with CDG complex structures, due to interference, diffraction and polarization, the radiations of the organism and the environment are 'packed' into spatial wave packages of electromagnetic energy and produce an ordered effect on the organism, which corresponds to the optimal mode. That radiation, coherently converted by means of a CDG, has a focused influence and acts as a catalyst for positive processes of self-organization and better arrangement of metabolic processes in the organism.

Thus, to activate constructive genetically recorded programs and to maximally damp or completely eliminate pathological trends, it is necessary to perform coherent conversion of the cytostructure's own radiations, which will entail highly ordered synthesis of a biological matter on the basis of existing genetic principles. The diffraction matrix used in this process is generated in accordance with objective physical criteria of coordinating broadband radiation and represents interference of the object's own electromagnetic pulses. By activating the algorithms of genetically recorded programs of the biological organism, by means of precise definition of all areas and levels of the macrosystem, striving for structural equilibrium, that interference causes the integrity restoration and system-wide integration of all subjects in the biological object that generate waves.

Each level of a hypersomplex biosystem is a stage-by-stage change of its own structural categories, where the genetic base is a complex of principles of their systemized development. In the present case, the converter is the formation mechanism for coordinated spatial-wave diffraction of broadband own radiations of the bioform.

In the result of coherent conversion of electromagnetic radiation of cytostructural and biochemical components at the deepest level, percentage of spontaneously accumulating errors in the process of biological derivative synthesis and CNS operation drops to the most objective level.

Thus, with a required constructional accuracy of the passive circular diffraction matrix (CDG) complex as a system of resonating planes, it becomes possible to purposefully initiate high-quality synthesis of different types of biochemical units.

There appears an actual chance to optimize the structure of water clusters in a biological organism, which are known to constitute 62% of its volume. Since there is not a single biochemical fraction that does not take that molecular substance into consideration, stable molecular components begin to form; there are no unsanctioned accidental reactions between them, which produces an effect of biochemical stabilization of the organism.

Water clusters, i.e. structural modifications formed by water, which are an objective part of the planetary hypercomplex system, are known to determine stability of all molecular compounds of organic profile without exception.

Thus, high-quality restoration of structural integrity of a biological organism requires optimal correction of the matrix composition of the existing water molecules. That process becomes feasible via the application of AIRES circular diffraction matrixes. Conversion of own electromagnetic radiations of

water into a coherent form by means of those matrixes forms a complex of highly structurized H_2O molecules. That task, important for both human health and the environment, can be efficiently accomplished using the AIRES Converter.

Optimization of H_2O structure will facilitate successful application of hormonal self-regulation by generating highly stable cell formations that already constitute the developed biological systems. It means that a massively manifested cytostructure defect will be reduced to the minimum, which will ensure automatic achievement of the balanced organism development, avoiding regular falls into disintegration areas, i.e. in the spontaneous mode, without extra special technologies or individual correction.

For living and abiotic water-containing systems, the phenomenon of aquacommunication is established – it means that water perceives, preserves and transfers information due to its ability to structure clusters, the scheme of which encodes the incoming information. Agility of its molecular dipoles causes electromagnetic radiation – that is modulated by the information encoded in the structure of clusters, containing the original information – due to induction of the said electromagnetic radiation. In that aspect, coherent conversion of H_2O own radiations is utterly constructive.

Implementation of this algorithm triggers a resonance between the modified H_2O clusters synthesized in the converter and natural water milieu, thus creating a direct chance to restore the cluster structure of the water environment due to the intersystem resonance effect, which efficiently damps geophysical destabilization of the habitat.

Thus, stabilization of geophysical space requires production of a converter that converts background radiations into a coherent form and corrects water clusters in natural water basins responsible for the quality of naturally synthesized biochemical compounds. That is a major factor for the stabilization of natural hypercomplex biosystems of any type.

In this case, the initiated process is equivalent to the effect of self-regulating 'deceleration' that levels off the planet ecology in accordance with the objective geophysical criteria.

In their turn, H_2O clusters, when rising into the atmosphere, can build a planet-wide diffraction matrix that will enable automatic conversion of electromagnetic radiation of different types and ranges into a coherent state that will trigger high-precision structuring of different types of the biological matter synthesized, in the perspective determined by its own genetic matrix.

Undoubtedly, to speak of a possibility to obtain a maximum pronounced effect, it is necessary to build a system of universal coherent converters – i.e. AIRES converters – of high intensity under a specific design, which will constitute the planet-wide diffraction matrix that will correct natural geophysical imbalance of the planet, thus stimulating well-balanced redistribution of energy of existing physical fields, which will cause adequate leveling and stabilization of climate.

Consequently, planetary ecological abnormalities can be damped through installing AIRES coherent converters in disaster-risk areas of the planet. There must be at least seven passive universal ecological converters placed according to a hexagonal scheme. As a result of coherent conversion of excessive geophysical activity of electromagnetic nature, the complex, covering geopathogenic areas, simulates a corresponding counter pulse that corrects intrastructural processes of the matter. Thus, the planet-wide geophysical complex can be expressly stabilized in 20-25 years, which will certainly cause the uttermost constructive response from the immediate habitat.

In their locations, modern megapolises are known to create local areas of chaotic electromagnetic field disturbances of extraordinarily large amplitude. Those are areas of active generation of electromagnetic fields with different frequencies and directions from many power sources, home appliances, transportation means, industrial facilities etc. Such areas are known to have an extremely negative influence not only on the environment but also on human health, provoking a number of grave diseases.

The project suggests that the complexes of AIRES ecological converters be constructed around large megapolises. Each converter is a spatial coherent converter of physical fields of electromagnetic nature, with a conversion intensity decreasing inversely to the squared distance from the converter.

Appendix I

«AIRES ECOLOGICAL CONVERTER»

THE MATRIX RESONANCE SYSTEM FOR CORRECTING ECOLOGICAL AND BIOPHYSIOLOGICAL BALANCE.

Without going into details on theoretical simulation developed by the Research Center AIRES New Medical Technologies Foundation, one can note that the construction of the applied fractal scheme (Fig.5) differs significantly from all other fractal prototypes, namely, it constitutes a stable form due to radial fixation of the compound spheres, passing through different combinations of phase centers, and makes up three types of structural modifications $2^n R$ - $2^n R\sqrt{2}$ - $2^n R\sqrt{3}$. Other fractal schemes do not have that property, and only this scheme makes it **possible to fix the multilevel coordination position of phases, amplitudes, frequencies of broadband electromagnetic radiation**. This condition determines the selection of simulation objects, materials and technologies that can guarantee the desired quality of production of the construction elements, which enables the implementation of a whole range of applied results of correcting structural characteristics of broadband electromagnetic radiation. Spatial coordination of the broad band of electromagnetic radiations generates a three-dimensional diffraction matrix with strict distribution of amplitudes, frequencies, and phases with the directional pattern in the form of a multilevel sphere. In the result, the difference in radiation intensity at the periphery of the complex drops to the minimum, thus defining a radiation density that changes evenly from the center of the structure to its periphery. Thus, a coherently converted package of broadband electromagnetic radiation can have a directional pattern only in the form of a self-affine sphere.

In this aspect, especially promising is usage of a construction in the form of a three-dimensional passive system of Aires circular diffraction matrixes. Such a construction is a topology scheme of phase centers fractally conjugated according to a special sphere algorithm in the form of the function $R2^n$ (where R is the radius of the base sphere, n is an integer number) and its derivatives $R2^n\sqrt{2}$; $R2^n\sqrt{3}$. Such a spatially developed system of diffraction matrixes? Having a similar plane fractal scheme, must form three complexes with a common focus and seven main shells (levels) (I - $R2^n \rightarrow R2^n\sqrt{2} \rightarrow R2^n\sqrt{3}$ II - $R2^n\sqrt{2}\sqrt{2} \rightarrow R2^n\sqrt{2}\sqrt{3}$; III - $R2^n\sqrt{3}\sqrt{2} \rightarrow R2^n\sqrt{3}\sqrt{3}$), thus forming a complex multilevel polygon made up of flat matrixes with a similar inner gradation of the appropriate fractal type. In the center of the construction, a local area of directly provoked coherent conversion of electromagnetic radiations appears, in the form of a spatial diffraction matrix. The 'diffraction crystal' produced in this way is characterized by an extremely broad band of coherently converted radiations, it allows to directly perform deep coordination of the exchange processes of electromagnetic nature.

Certainly, technical complications when generating this construction are high, therefore today it is recommended to build an approximate model of this universal coherent converter as a cubic fractal scheme, which is a multilevel cube with an octahedron inscribed into it, assembled from corresponding passive diffraction matrixes. And in this case, it is sufficient to build one of the six pyramids constituting the cube. That three-dimensional segment of the spatial layout of phase centers of fractally conjugated spheres is a universal spatial structurizer of broadband electromagnetic radiation (patent № 2249862 dated by 02.07.04). In the central part of the construction, directive restructurization and coordination of broadband electromagnetic radiations takes place independently of the directional pattern of the above, which ensures highly efficient correction of counter-exchange processes in the hypercomplex biosystems through coherent conversion of the electromagnetic radiation of the cells that emit that radiation.

This coherent converter– the Aires ecological (electromagnetic) converter – can have different size and stabilize environment background activity with an intensity that is proportional to the construction volume (V), interaction range value (α) and the ratio determining the conversion quality (n). In its turn, the conversion ratio (n) depends on the square of the diffraction matrixes (S), parameters of the topological slit (H/L) and dielectric permittivity of the circuit substrate (carrier). Naturally, the quality of technical design and diffraction matrix diagrams must be flawless. The working area of the converter covers the surrounding area, with coherent conversion intensity decreasing inversely to the squared distance from the center of the converter.

Figures 11-12 show the correlation between the distribution of electromagnetic field intensity in the horizontal section of an AIRES converter and a biologically active complex.

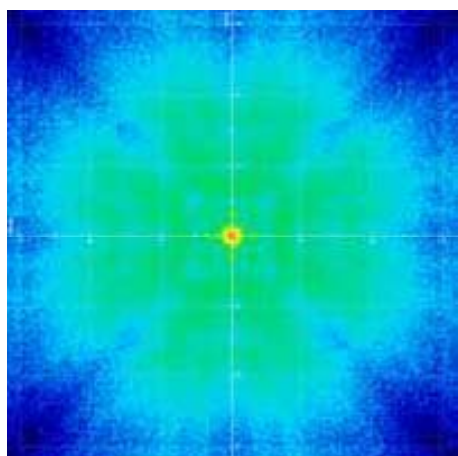


Fig.11 Field intensity distribution in the horizontal section of an AIRES converter.



Fig.12. Model of electromagnetic field distribution of a biologically active complex (from V.D. Lachno 'Clusters in Physics, Chemistry, Biology' // RHD, Moscow, Izhevsk, 2001., p.174)

The implementation of this concept gives a possibility not only to eliminate such destabilizing processes as illnesses and age degradation, but also to qualitatively stabilize geophysical activity of the environment and minimize its manifestations.

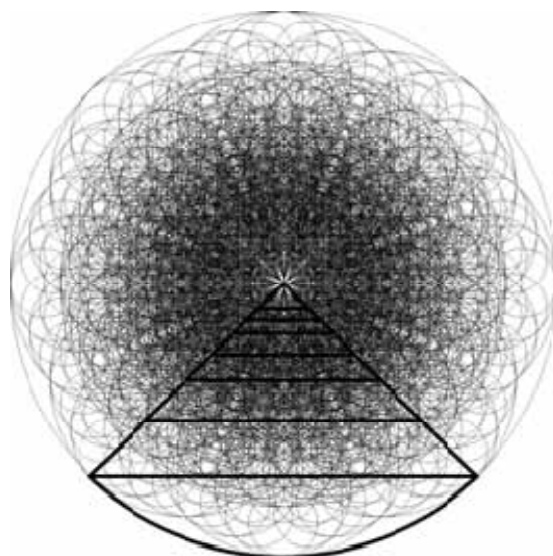


Fig.31 Working segment of a projection of a self-affine sphere section upon plane XY

Even though the implementation of such a project involves a whole range of high-precision technologies for producing and processing various materials, including special ones, including submicron lithography of complex matrix structure topologies, it can be achieved in modern condition. The first stage of work implies a full-scale estimation and design of the entire construction with consideration of available materials and technologies as applies to specified conditions.

The second stage of work involves production of a full-scale construction and implementation of the projects given below on its basis.

The implementation of this exclusive design will ensure a whole range of results in applied medicine and environmental studies, namely:

1. Use of the converter inner space for universal stabilization of hypercomplex biosystems, restoration of psychophysical state and improvement of adaptive properties of the human organism:
- Prevention of hyperactive pathologies such as oncological diseases, cardiovascular diseases (myocardial infarction), infectious diseases (hepatitis etc.), various epidemics.
- Prevention of development of congenital pediatric pathologies.
- Usage of an internal water basin for recreation and rehabilitation after surgical operations, stress and overwork.
- Usage of the converter internal space for a whole range of prospective physical experiments.
2. Damping of geomagnetic anomalies of a broad profile of a locally limited area.
3. Stabilization of a structural complex of geophysical electromagnetic nature with pronounced decrease in spatial entropy of the actual habitat.
- Decrease in seismic activity and earthquake probability.
- Decrease in the formation of a probability of atmospheric turbulent processes in the air basin around the converter, including sandstorms and tornados.
4. Smoothing and stabilization of climate and ecological balance:
- Powerful restorative influence on the ecology of water basins and woodlands in the installation area.
- Stabilization of weather and climate conditions in the region.

It is a far from a complete list of effects that can be achieved by using the coherent conversion of electromagnetic radiations under the AIRES ecological converter project.

The implementation of the AIRES ecological converter project made use of works of the staff of the research center AIRES Foundation protected by ten patents.

Appendix II

Pyramidal converter general model description

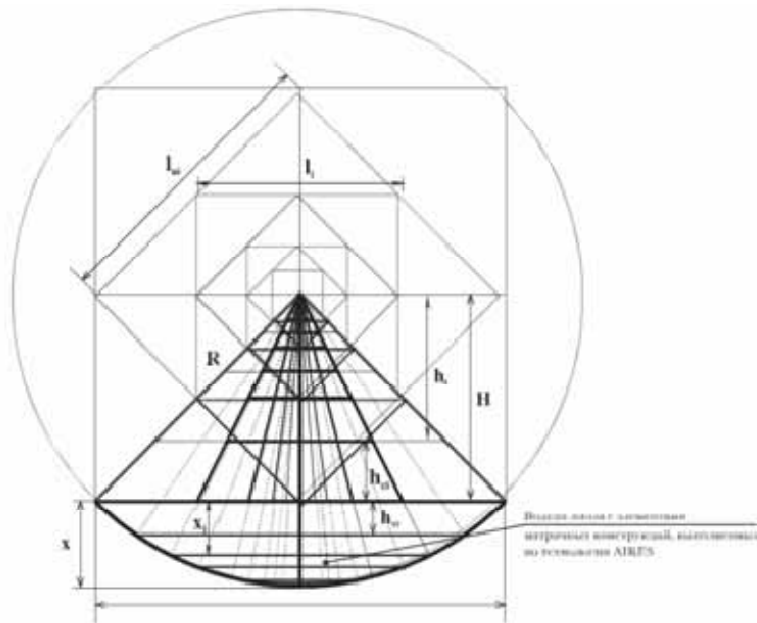
A recommended working model of the material analog of the self-affine sphere is a segment of the abovementioned scheme that is approximated by the pyramidal structure with built-in packages of planar resonators of AIRES CDGs.

According to the customer requirements, calculations are made for a pyramidal converter construction with three-dimensional geometry based on the principles of Universal stabilization of hypercomplex systems of a wide profile developed by the AIRES Foundation.

The initial data of the converter construction are as follows: a three-level sphere with a radius of $2nR$ is inscribed in a cube with the side L , a three-level sphere $R2n\sqrt{2}$ is inscribed into the cube lattice, a three-level sphere $R2n\sqrt{3}$ is circumscribed around the cube. The cube is structured by six pyramids. In the cube,

a three-level octahedron is inscribed. The converter frame is a construction assembled of hollow metallic cylindrical tubes of an estimated diameter. The converter has the base side L and height H :

$$L=2H$$



Water lens with elements of matrix constructions made to AIRES technologies

The converter has seven 7 structural levels (stories). The lateral faces of each half-octahedron are structured of similar elements. The bottom part of the converter is a segment of a sphere.

The underground part of the converter is a construction of planes with matrix topology made of hollow metallic or polymeric cylindrical tubes filled with water. In its central part on the first level there is a pool filled with water. The water is a milieu with pseudo-crystal structure and can accumulate an induced potential due to the structurization (clusterization) when resonating with its own radiation coherently converted by the converter [1-9]. The depth of the underground part of the converter is x :

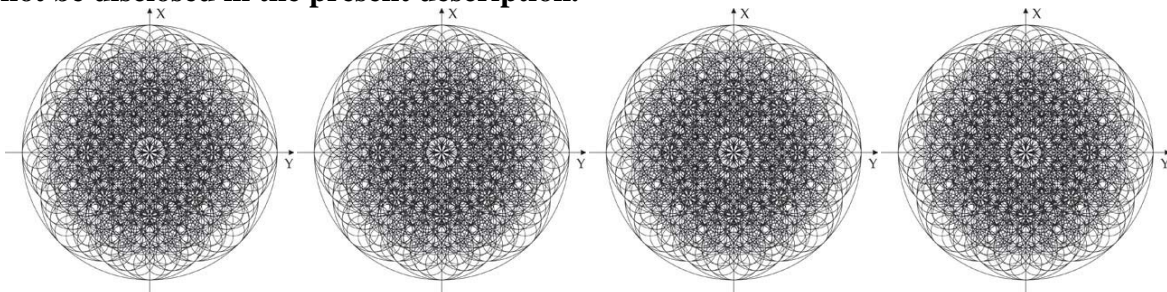
$$x = R - H$$

The converter has seven levels with the height h_i and base side l_i (calculated using the AIRES technology)

Note that an additional hermetic encapsulation is necessary for the foundation in order to prevent leaks of external water inside the converter and inside the internal water pool, and vice versa.

Today, the best solution is the construction of a pyramidal converter with a height of 40.96 m.

The main parameters for estimation and construction of the coherent electromagnetic radiation converter are the intellectual property of the AIRES New Medical Technologies Foundation and must not be disclosed in the present description.





Appendix IV Converter photographs and drafts

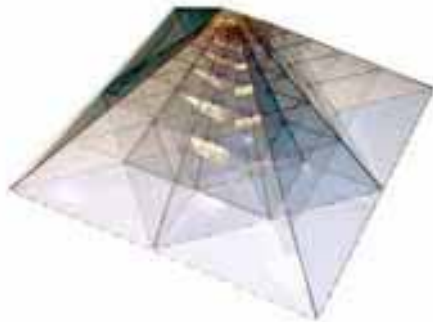


Photo of a converter model, height 18 cm

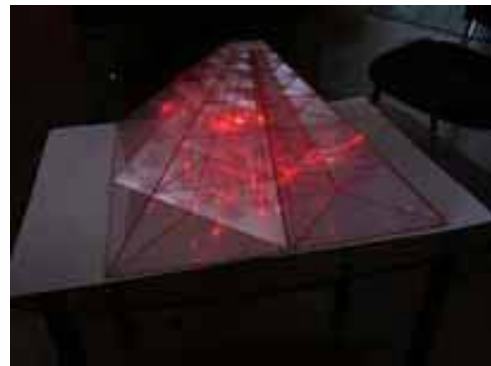
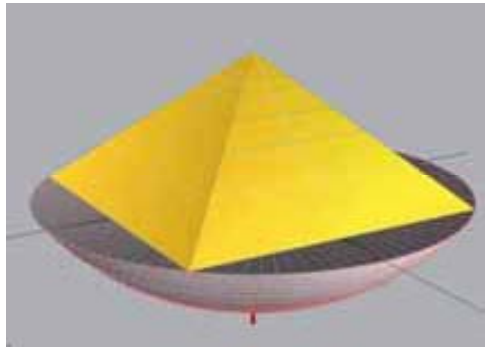
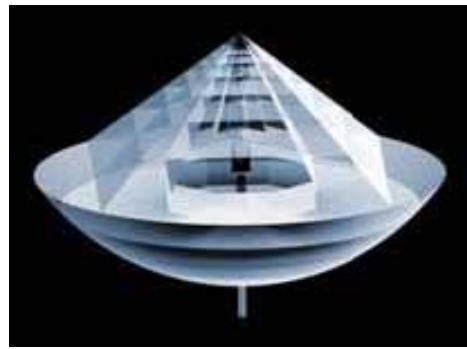


Photo of reflexes in the converter model when it is irradiated from below by a point source

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Draft of a converter general view



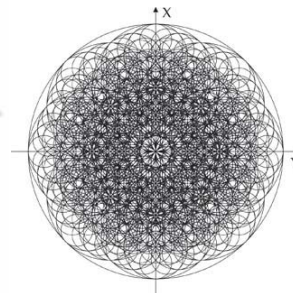
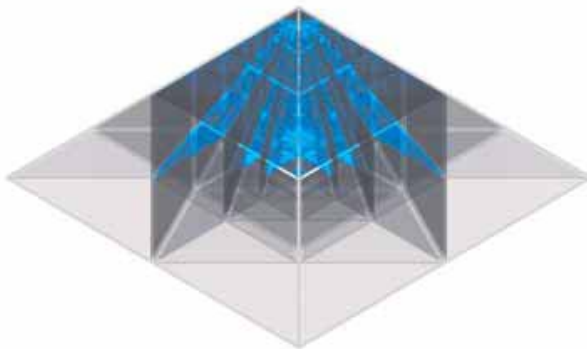
Draft of a converter inner space

Simulation of electromagnetic field-converter interaction

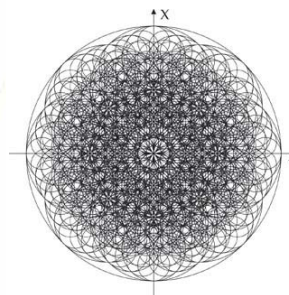
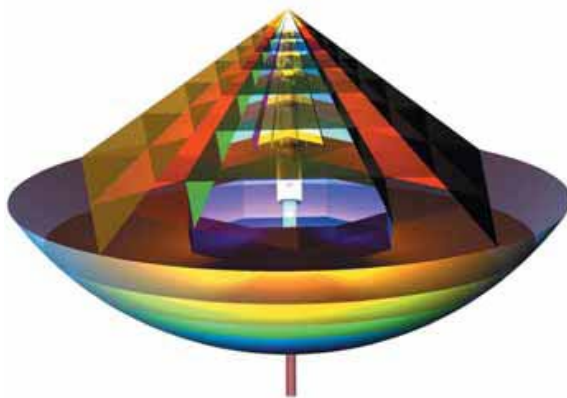
A specially modified VOB_LUMEX program was used to perform mathematical simulation of the interaction between electromagnetic radiation field and an AIRES ecological converter model that had a geometrical structure based on the principles of universal stabilization of hypercomplex systems.

The converter models to be estimated were built in the Mechanical Desktop application. All faces are represented as infinitely thin planes, their reflecting and refracting properties are the same for every estimation variant. The interaction of the radiation flow with the models is calculated in ray approximation. Over forty variants were calculated for irradiating the models using homogeneous flat fronts under different irradiation conditions and optical model parameters.

Several graphic images of the designed construction



Several graphic images of the designed construction



Converter models with no apex with different direction variants of electromagnetic radiation falling on the converter

The above figures describe more indicative calculation results for the distribution of EM field intensity on the sections of the input models by planes parallel to the coordinates as shown in the table in Fig. 32. The planes of analysis were at different heights from the converter base so as to reflect the intensity distribution in different areas inside and outside the converter. Colors in the Figure denote the intensity value. Red means the maximum, and purple means the minimum value in every analysis plane. The scale was selected on the basis of the best representation of the field structure.

The obtained results lead to the conclusion that, when a flow of electromagnetic radiation interacts with the converter, the field gets an evident fractal character and stable spatial distribution of maximum and minimum intensity areas. The field structure is redistributed, and its multilevel coherent conversion takes place inside and outside the converter construction body (see Fig. 33 – 35a). A pronounced increase in the field intensity occurs in the upper tier area of the converter, as shown in Fig. 36-39. That concentration area has tier gradation corresponding to the internal structure of the converter.

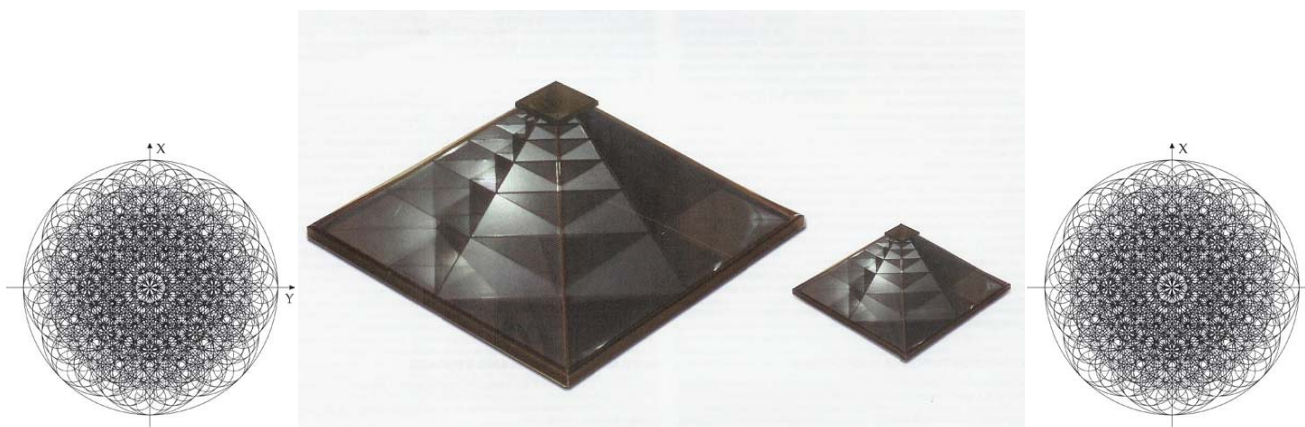
Comparison of EM field distribution in the horizontal plane at a distance of 1/3 of the AIRES converter height above its top, shown in Fig. 35, with the distribution of the EM field of the biologically active complex (Fig. 12) leads to the conclusion about structural correspondence of those distributions, determining the possibility of resonance interaction.

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Small converters (up to 40-60 cm high) are designed:



- to correct ecological status of dwelling premises
- to restore individual psycho-physical status of a person
- to optimize structural-information status of water and foodstuff
- to neutralize technogenic electromagnetic field

The converter is made of non-toxic PVC.

Operating conditions: The converter is designed for use in dwelling premises. It is not recommended to expose the converter to:

- Rude mechanical effects (impacts, falling from heights, etc.)
- effect of high (> 45 C) and low (< 5 C) temperatures
- effect of water and moisture

For additional information contact authorize dealers of Cem Tech Products in USA

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