



## **THE EFFECT OF THE "AIRES" FRACTAL-MATRIX FIELD STRUCTURIZERS ON WATER SYSTEMS**

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At present, both pure water and water used as a solvent is thought of as a fractal medium. Due to its ubiquity, water makes living organisms, and even the biosphere as a whole, hypercomplex fractal systems whose every part reflects the general property of the entire system, while the properties of the organism or the biosphere reflect the properties of each of their parts.

Water perceives information from various exogenous agents and encodes it into the structure of water clusters being formed in it. In this way, the structure-information state of water is changed. In the "structured" water, there is an increased content of the clusters structured by the structuring impact of received information. The following factors can influence the objectively existing structure-information state of water and water systems:

- Phase transfers in water.
- Temperature and pressure.
- Contact with the surface of water-insoluble materials.
- Any kind of soluble substances.
- Contact of water or its vapors with substances in vapor or gaseous state.
- Physical fields, such as magnetic, electric, electromagnetic, gravitational, as well as fields generated by the movement (e.g., compression, expansion, or transposition) of layers of the medium particles—acoustics, vibration, hydrodynamics, aerodynamics, etc.
- Astroheliogeophysical factors.
- Topological structurizers of fields, such as polarizers, prisms, diffraction gratings, pyramids, fractal-matrix resonators.
- Biofields, including the electromagnetic, vibration, temperature and other fields that are intrinsic in living objects.

A change in the structure-information state of water naturally leads to a change in the characteristics of its state.

These characteristics include not only the structural and information indices but also other indices describing the properties of water that are sensitive to changes in the structure-information state of water. For example, the following types of data can be referred to as characteristic indices:

- Data obtained using spectral techniques, such as  $H^1$  and  $O^{17}$  nuclear magnetic resonance, infrared spectroscopy, light-diffusing, refractometry, contrast-phase microscopy, and others.
- Parameters of the physical and chemical properties of water, such as viscosity, surface tension, dissolving capacity, propensity to overcooling, electric conductivity, internal energy, and the form of frozen-water crystals.
- Chemical reactivity of water due to various water clusters, which form clathrates with  $H^+$  and  $HO^-$  ions, which change the acid-base properties of water, or  $\cdot H$  and  $\cdot OH$  radicals, which change reductive-oxidative properties of pH medium, as well as the kinetics and direction of reactions.
- Physical fields of water.
- Changes in biological and physiological functions of living organisms.



The fractal-matrix resonators developed by the AIRE Foundation can influence water by changing its structure-information state due to their ability to structure the intrinsic wide-band electromagnetic field of water through not only strengthening or weakening it in certain frequency ranges but also through changing its topology. The interaction between this structured field and the original field of water leads to a corresponding rearrangement in the water due to the resonance phenomena occurring at certain frequencies and to the self-organization processes. The change in the structure-information state of water is accompanied by a change in its spectral characteristics in the infrared range, as well as in its physical and chemical parameters, such as electric conductivity. Moreover, when a certain type of resonators is used, the pH value also undergoes changes.

The obtained experimental findings indicate conclusively that the fractal-matrix resonators developed by the AIRE Foundation can exert a controlled influence on water and, consequently, various water-containing systems, including the human being. This in turn suggests much possibility for widely using the phenomena in question. In this regard, there is a need to initiate a more extensive research concerning both the development of new structurizers, and their effect on water and biological objects.

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