PRESENTATION OF THE ACTIVE SUBSTANCE

With more than nine years of continuous research, we have developed a composite ceramic made of natural materials, which is unique in the world and is made of natural materials. the amount of theoretical black-body radiation that can be modeled under the conditions. The infrared composite ceramic we have developed is under patent protection.

This feature makes it unique in the world, both in terms of efficiency and other unique features.

Our active ingredient absorbs energy from its environment, such as light and heat energies, and restructures it to radiate it back into its environment as long-wave infrared (FIR) energy or, in the case of human use, for our body.

Our developed - and continuously reproducible - raw material is one of the most effective infrared radiation materials in the world, considering that the tourmaline, jade stone, tachi stone and germanium rock raw materials that can be mined as a rock (mineral), which are mostly used for these purposes, are about 25-35% more efficient. but it also precedes the efficiency of an otherwise very small number of artificially produced raw materials with this effect by about 15-20%.

It is important to mention that our active ingredient, no matter how it is used, has no harmful effects on living organisms or the environment.

We carry out the professional part of our work under the direction of Professor János Mink, a world-renowned authority on infrared spectroscopy. spectroscopic and emission analyzes were performed at the Hungarian Academy of Sciences in Munich and Moscow.

What are the basic properties of our active substance and, in general, long-wave infrared radiation, and what can it be used for?

Here are just a few:

The far-infrared radiant products made using this special ceramic active ingredient, like the infrared sauna, have a number of known positive effects. Examples of such beneficial physiological effects are that:

 It penetrates 4-5 cm deep under the skin and raises the temperature of the muscles, blood vessels and lymph nodes locally, thus dilating the capillaries and blood vessels, stimulating blood circulation, increasing the metabolism between blood and tissues, promoting tissue regeneration and relieving cramps. It stimulates enzyme activity. It intensifies blood flow by dilating the micro-circulatory system of capillaries. Relieves muscle cramps by heating muscle fibers.

 It affects all living cells and “produces heat” due to the increased blood supply. At the molecular level, vibrations in cells and tissues activate chemicals. Infrared heat releases nitric oxide in the blood vessels.

 It helps to remove toxins (heavy metals and toxic substances) that have accumulated over the years due to increased blood and lymphatic circulation, which are excreted by the sweat and sebaceous glands in the skin layer. Helps reduce swelling and inflammation by improving lymph flow.

 Regulates the functioning of the autonomic nervous system and reduces hyperstimulation of the sensory nerves. It reduces pain by directly acting on peripheral nerves and free nerve endings in tissues.

We focus primarily on the potential of human, agricultural, and surface treatment technologies, and examine their positive effects on the organization and the environment.

Our current and planned research and development activities in the near future:

- Stockings, socks,

  and the development of Rayneud syndrome gloves

- UV filtration and absorption tests

- Experiments on agriculture (crop production, foil and greenhouse)

- Textile fiber (polyamide and cotton) development

- Analysis of cosmetic applications

Scientific background and state of the art

All living organisms are reached by electromagnetic radiation from the Sun to Earth, the main source of which is the Sun. Considering the total electromagnetic radiation, the infrared radiation covers the range of 750 nm-200 μm (~ 14000-50 cm-1). It is located between the visible short-wavelength red and high-wavelength microwave spectral ranges. The infrared range is more

can be divided into near-infrared (NIR, 14000-4000 cm-1 or 750 nm-2.5 μm), medium-infrared (MIR, 4000-400 cm-1 or 2.5-25 μm), and far-infrared (FIR, 400 -50 cm-1 or 25-200 μm) spectral ranges.

Essentially all materials absorb some of the electromagnetic radiation they receive. A body that completely absorbs the radiation it receives is called a black body. When the black body is at a constant temperature, it radiates this absorbed energy, a

phenomenon called “black body radiation”. As the temperature of a body increases, the amount of energy radiated from the material will also increase.

The self-produced “Yule®” active ingredient we use, which is an artificially produced infrared black ceramic powder, also has this property. However, this material radiates more strongly in some parts of the infrared range - at the end of the medium infrared range and at the beginning of the far infrared range (between 1000-150 cm-1), even at the temperature of the human body! This range is important because it is a biologically beneficial part of infrared radiation.

(Electromagnetic radiation, like visible light, is characterized by its frequency, wavelength, or number of waves. The wavelength is directly proportional to the frequency, while the wavelength is inversely proportional to the frequency. This energy, the so-called energy density, for each wavenumber is plotted as a function of the wavenumber, so it is nothing more than a spectral distribution.)

The black body we use is not an absolute black body, but it approaches it well.

One common feature of infrared radiation is that the effect of the radiation attenuates in direct proportion to the square of the distance. That is, the farther the irradiated body is from the source of the radiation, the weaker the effect of the radiation. Another such feature is that infrared rays do not heat the main components of the air, only the objects they irradiate. Some of the infrared radiation in the irradiated body is absorbed, converted into heat, and the rest is reflected or passed through the body, depending on the properties of the body. In infrared radiation, energy is released in the form of pure heat, which is perceived by the thermoreceptors in human skin as radiant heat.

Infrared or thermal radiation has been used effectively for thousands of years to relieve certain feelings of physiological discomfort and to treat disease. Heated saunas are just one of the oldest treatments where infrared radiation reaches the human body in a controlled environment and over a controlled period of time. The beneficial effects of Maifan stone, tourmaline, and Jade stone on the human body, which occur freely in nature, have been recognized by the ancient Chinese and described in various medical books. Nowadays, it has been shown that they have a beneficial effect

the minerals are due to the emission of infrared radiation with a wavelength of 8-14 μm, which increases the energy level of the molecules in living organisms, and the molecules are in an excited energy state, which activates the biological processes of the cells and the cellular metabolism.

The main effect of infrared radiation on the human body is that when FIR waves penetrate our body, they are converted into thermal energy. Energy production is so close to the body’s radiant energy that our bodies absorb 93% of the infrared waves that reach our skin. Overdose is not possible because the radiation energy that the

cells can no longer utilize is simply passed on to them. Radiation in our tissues activates the self-regulatory system to alleviate upset body balance and lead to healing. Upon FIR radiation, cells produce enzymes that activate phagocytes, helping to remove damaged and diseased tissue. Energy from the infrared range raises the temperature and initiates biochemical processes.

The technologies we offer and their know-how are made using a patented infrared ceramic license, we offer the license exclusively for the various areas of use, without territorial restrictions, as required. Products developed using know-how are subject to patent protection.

The infrared ceramic is manufactured by our company in Hungary, from where we deliver to the requested location based on the order. We guarantee the continuous supply of ceramics in a contract.