

Electromagnetic Radiation Optimum Neutralizer, Part 2

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Every operating electrical and electronic device emits electromagnetic radiation (EMR). The power of this emission varies depending on the size and electrical strength of the device and the electrical current it carries. High voltage power lines are significant emitters, and their field strength is sufficiently high to cause adverse effects on humans, animals and plants even hundreds of feet away. Smaller devices, such as computers, television sets, cellular phones and microwaves, emit lesser quantities of EMR, but the effect on humans can still be significant because people are in much closer proximity to such devices.

Studies at major universities such as the University of Southern California, Washington University (Seattle), University of Lauganna in Switzerland, Hanyang University in Korea, University of Warwick in UK, have proven the negative effects of electromagnetic radiation on living organisms. Adverse effects on the health of humans that have been reported as attributable to long-term EMR exposure include occurrence of certain cancers, multiple sclerosis and autism. Reported adverse effects on animals have included stillbirths of young and reduction of milk production in cattle. It would therefore be advantageous if there was a device available that could effectively shield people, animals and plants against harmful, adverse health consequences that may be inherent in prolonged or extended exposure to EMR.

I was involved in the research of the effects of electromagnetic radiation on cellular structures in St. Petersburg University. Following this research program I developed Molecular Resonance Effect Technology. For this invention I was awarded a patent in the U.S. in February 2000. In compliance with this technology I created the EMR shielding material and

device-EMRON (Electro Magnetic Radiation Optimum Neutralizer), now patent pending. Recently this polar polymer material was tested by Underwriters Laboratories and received a UL recognition mark. This shielding material does not reduce the intensity (power) of electromagnetic fields. It “shields” the cellular structures of the body against the harmful effects of EMR. The radiation is still entering the body but the neutralizing effect of this polar polymer renders the radiation harmless.

The recent discoveries in quantum physics can throw light on the function of the shielding material. It relies on the idea that electromagnetic radiation can affect the atomic and molecular structure of substances. This fact was proven by specific class of experiments involving Rydberg atoms—atoms with an electron in a highly extended orbital (“Rydberg Atoms-Giants of the Atomic World,” by F. Barry Dunning, *Science Spectra*).

The effect an electromagnetic force has on an atom depends on the atom’s electronic structure during the interaction. One could imagine that the application of the appropriate time-dependent force to an atom could alter its electronic structure in a specific way, thereby controlling its response to subsequent radiative or collisional processes. Furthermore, the specificity of certain reactions of electronic structure might be exploited to reconstruct the motion of the atomic electron cloud. The key to the manipulation of electronic structure in atoms is the generation of electromagnetic fields or radiation that will push and pull the electronic wave function in a controlled and reproducible way. (“Modifying Atomic Architecture” by Robert R. Jones, *Science Spectra*).

Recent discoveries in biophysics (in 1994 a Noble Prize was awarded to Gilman and Rodbell for determining that

cells communicate with each other by electromagnetic signals, Dr. Frohlich and Dr. Webb presented the theory of cellular resonance phenomenon, Dr. Kell introduced the theory of Bioelectrochemical Information Transfer) proved that cellular structures could resonate with specific electromagnetic frequencies. In fact, back in the 1920s, the famous Russian biophysicist Alexander Gurwitsch had already established beyond any reasonable doubt, that living cells and tissue generated an extremely weak, yet biologically active, form of electromagnetic radiation, in particular in the ultraviolet range; and that the presence of this radiation is somehow intimately connected with the nature of living processes themselves. (“Russian Scientists Replicate ‘Impossible’ Mitogenetic Radiation” by Jonathan Tennenbaum, *21st Century Science & Technology*).

EMR shielding material is made of a polar polymer compound with long linear molecular structure (nM—Mn, where $n > 38$) mixed with certain amount of organic and inorganic substances. Most of polar polymers possess comparatively high values of relative permittivity (dielectric constant), which means that both bonding and non-bonding electrons in the molecular structure of these polymers can be easily displaced by external electromagnetic force. The external electromagnetic field creates in the molecular structure of the polymer compound the excitation of electromagnetic forces, which in its turn amplifies the corona discharge effect (the physical process of cold emission of electrons) of assorted compound. The result of this amplification is an emission of subtle low frequencies electromagnetic oscillations originated by the polymer itself. The oscillations generated by the specifically designed compound are very beneficial for living cells and compensate the negative effect of

EMR generated by electric appliances.

This concept is based on the possibility of existence of resonance phenomenon between polar polymers and biopolymers such as proteins, nucleic acids, lipids, etc. The resonance effect between polar and biopolymers relies on the similarity of their long linear molecular structures and elements content. The lengths of polar polymers and biopolymers molecular structures are around 0.3-3.0 angstroms. Biopolymers as well as polar polymers are composed of such elements as carbon, oxygen, nitrogen, hydrogen, phosphorus, etc.

Thus specific low frequency patterns generated by defined polar polymer compounds can interact with biostructures and transmit the signals that support and improve cellular functions in the body. This fact was confirmed by experimental work described in my patent. It was conducted on Activated water in several independent laboratories: Engene Biotechnologies Inc., CAI Environmental Laboratory, NuMega Resonance Laboratory, etc. The process of water activation was accomplished with electromagnetic frequencies, generated by defined polymer compounds that were introduced to the effect of external electromagnetic radiation. The tests results showed the pH balancing effect (reduction of acidity and alkalinity), neutralization of free radicals, increase of conductivity and turbidity, significant reduction of harmful bacterial populations, suppression of mutated cells, significant enhancement and acceleration of plants growth, improvements of cells functions.

Why are subtle low frequency electromagnetic oscillations beneficial for the cellular structures of humans, animals and plants? My hypothesis is that throughout the billions years of evolution of organic life on this planet living cells were exposed only to the natural electromagnetic field of the earth. This subtle electromagnetic field has the low frequency spectrum in the range of 0.5-15Hz. Living cells resonate in the range of 0.3-13Hz, and human brain function waves (Delta, Theta, Alfa) are in the range of 0.3-30Hz. The living cells developed normal metabolism while being exposed only to natural low frequency electromagnetic field. Thus the low frequency spectrum electromagnetic fields are beneficial for normal cellular function.

The modern technological revolution has dramatically changed the environment and introduced living organisms to "new" high frequency electromagnetic fields.

High frequencies emitted by power lines and electric appliances can create a distortion in cells communication and as a result aggravate cellular metabolism and as a result increase the risk of degenerative diseases. The recent studies (the Adelaide Hospital animal study, Dr. Lai and Dr. Singh animal study at Washington University, etc.) showed that exposure of animals to the "new" high frequency oscillations disturbs cellular functions and creates "double-strand breakage in DNA," which is a serious genetic alteration that can lead to cancer. Probably one of the symptoms of aggravation of cellular functions is a dramatic increase of severe diseases such as cancer, HIV, etc. The modern industrial society will continue to use electric and electronic appliances, so the only way to protect living organisms is to develop an environmentally safe technology that can neutralize the harmful effects.

EMR shielding polar polymer can neutralize negative effects of EMR by changing the quality of the electromagnetic field rather than reducing its power. Any type of devices that claim to reduce the power of electromagnetic fields definitely make worse the reception of cellular phones. Besides they reduce the radiation only by 15-20%.

They also can create even worse problems for the cellular structures of the body. The reason is that electromagnetic processes in the cells are a thousand times weaker than electromagnetic fields generated by any electronic appliances. Taking into consideration that most of the appliances (cellular phones, computers, etc.) are usually located in a very close proximity to the human body, it is reasonable to admit that shielding devices, which reduce electromagnetic fields, first of all will suppress and disturb electromagnetic processes in living cells.

The beneficial effect of this material on human blood has been proof-tested at the laboratory of Cedars-Sinai Medical Center. The effect of the computer display radiation on human blood samples (22 sample in each group) was studied with and without installation of the polar polymer EMR shielding material and compared with a control group. The blood samples were exposed to the computer display radiation at the distance of 15" for one hour.

- The Granulocyte content decreased by a mean of 43%. The installation of polar polymer on the computer significantly compensated the suppression

of Granulocytes by EMR. In this case the Granulocyte content decreased only by a mean of 30%. It means that the shielded group of blood samples had about 30% less decline of Granulocyte content than the non-shielded group (Fig.1). The results are statistically valid with $p > 0.99$. Since Granulocytes are a critical component of blood and play one of the most important roles in the immune system reactions, it is evident that the presence of the shielding device protected the blood samples from significant amount of harmful effects resulting from the exposure to EMR.

- The blood test also showed that the shielded group of blood samples had about 40% less increase in Lymphocyte content than the non-shielded group. The Lymphocyte content in non-shielded group increased by a mean of 37% and in the group shielded with polar polymer only by a mean of 23% (Fig.2). The results are valid with $p > 0.99$. The general consensus is that the increase of Lymphocytes above normal level increases the risk of leukemia, lymphomas, skin rash, etc.
- The special point of interest is the significant increase of Red Blood Cells (RBC) by a mean of 41% in the shielded group and only by a mean of 7% in non-shielded group compared to the control group (Fig.3). The results are valid with $p > 0.99$. RBC play a major role in the process of cellular oxygenation. They also help to develop antibodies that stimulate specific reactions of immune system and fight various infections in the body. It means that the installation of polar polymer can positively affect the process of metabolism and immune system reactions. These results prove that material not only shields and neutralizes harmful effects of electromagnetic radiation, but also helps the human body to achieve the optimum health conditions.

The Electroencephalogram (EEG) tests were conducted at the laboratory of SA Biomedical Instrumentation Co., San Diego, California (Fig.4). These tests were conducted on the human subject introduced to the influence of EMR generated by a cellular phone (SAMSUNG Model No: SCH-2000) without polar polymer protection and with its protection respectively. Each test was run for 3 minutes. The cellular phone was located

in standard operating position at the right side of a head. The head of a subject was covered with a standard Electro-cap E1-L connected with four channels SAI Bio-electric Amplifier which includes Analog Processor and Anti-aliasing Filters. The data were provided from the following electrodes: C4, Fz, F4, and T4.

Let's compare the EEG charts that present the brain function wave patterns:

The control chart of a subject not introduced to EMR of a cellular phone shows normal slow mode of brain function.

- The chart of a subject introduced to EMR of a cellular phone without any protection shows the excitation of the brain function wave patterns.
- The chart of a subject introduced to EMR with polar polymer protection is very close to the control chart. It means that the installation of this material on the cellular phone synchronizes and slows down the brain function frequencies. It makes the brain function frequency spectrum more coherent and optimized from the physiological point of view. This fact proves that this polar polymer neutralizes the electromagnetic stress and excitement caused by the effect of a cellular phone on the brain.
- The chart of a subject introduced to EMR of a cellular phone with competitive product (Pulse Clean 21) protection shows that this "protection device" makes the excitation of the brain function wave patterns even worse. It happens because the devices that claim to reduce EMR first of all suppress and disturb subtle electromagnetic processes in living cells.

Another test was conducted on plant leaves with a help of High-Voltage Photography. It is a scientific method that can detect and actually show pictures of Corona Discharge Effects of organic and non-organic substances. The living cells produce the luminous fringes via a physical process known as cold emission of electrons (Fig.5).

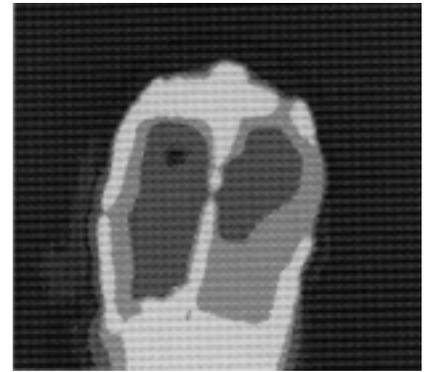
- The solid image of a leaf not exposed to electromagnetic radiation means that all cells of the leaf are alive and function properly.
- The image of a leaf exposed to computer display radiation without any protection has dramatically reduced. Only about 40% of the cells survived after 30 minutes of exposure to EMR at the distance of 5 inches from computer display.

- The image of a leaf exposed to EMR with polar polymer protection shows that about 90% of the cells survived under the same conditions. Thus the High-Voltage photographs prove that this material neutralizes the harmful effects of electromagnetic radiation on living organisms.

Full color figures available upon request. You can submit your request to Dr. Smirnov's email: Ismi529639@aol.com. Thank you.

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The picture of Corona Discharge Effect of a plant leaf NOT exposed to computer display radiation.



The picture of Corona Discharge Effect of a plant leaf exposed to computer display radiation for 30 minutes without any protection.



The picture of Corona Discharge Effect of a plant leaf exposed to computer display radiation for 30 minutes with EMRON protection.

EEG TESTS

SA INSTRUMENTATION CO.

Biomedical Instrumentation for Research

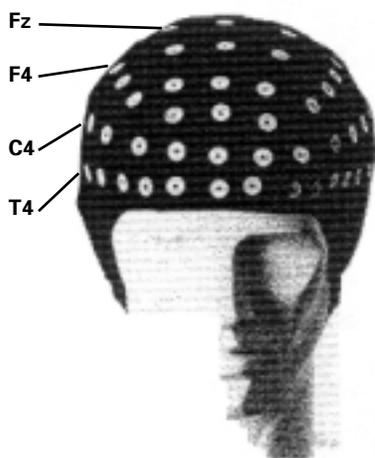
858.453-1776 phone/FAX outside California 800.266-1776

Website: sainst.com

1437 Tzena Way, Encinitas, CA 92024

The EEG tests were conducted at the laboratory of SA Bio-medical Instrumentation Co., California. These tests were conducted on the human subject introduced to the influence of cellular phone (SAMSUNG Model No: SCH-2000) without EMRON protection and with EMRON protection respectively.

Each test was run for 3 minutes. The cellular phone was located in standard operating position at the right side of a head. The head of the subject was covered with a standard Electro-cap E1-L connected with a 4 channel SAI Bioelectric Amplifier that includes Analog Processor and Anti-aliasing Filters. The data were provided from the following electrodes: C4, Fz, F4, and T4. This precision Amplifier can record and analyze very lo-potential physiological data from surface electrodes. With this SAI BIOAMPS successful physiological data acquisition can be accomplished in most any environment without the use of a shielded "screen room".



The comparison of the EEG charts that present the brain function wave patterns:

- The control chart of a subject not introduced to EMR of a cellular phone shows normal slow mode of brain function.
- The chart of a subject introduced to EMR of a cellular phone without any protection shows the excitation of the brain function wave patterns.
- The chart of a subject introduced to EMR with EMRON protection is very close to the control chart. It means that the installation of EMRON on the cellular phone synchronizes and slows down the brain function frequencies. It makes the brain function frequency spectrum more coherent and optimized from the physiological point of view. This fact proves that EMRON neutralizes the electromagnetic stress and excitement caused by the effect of a cellular phone on the brain.
- The chart of a subject introduced to EMR of a cellular phone with competitive product (Pulse Clean 21) protection shows that this "protection device" makes the excitation of the brain function wave patterns even worse. It happens because the devices that claim to reduce EMR first of all suppress and disturb subtle electromagnetic processes in living cells.

TEST RESULTS

BLOOD TESTS: Blood samples (22 in each group) were exposed to the source of radiation (computer display) for one hour at the distance of 15"; test results are statistically valid with $p > 0.99$.

GRANULOCYTES LYMPHOCYTES

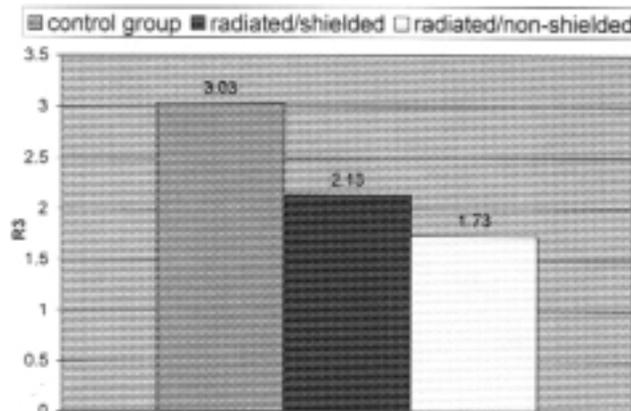


Figure 1. The shielded group of blood samples had 30% less decline of Granulocyte content than the non-shielded group. Granulocytes play one of the major role in the immune system reactions. Their decline is harmful for the body.

LYMPHOCYTES

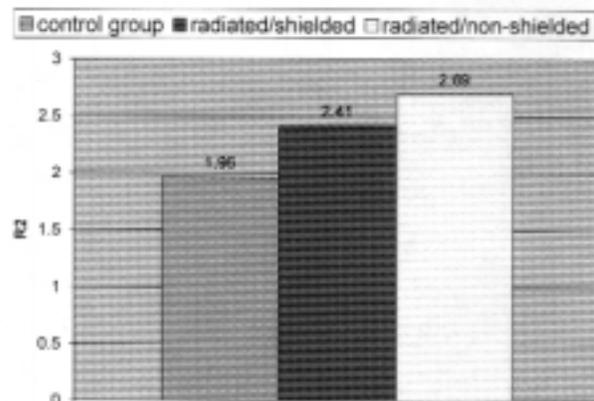


Figure 2. The shielded group of blood samples had 40% less increase of Lymphocyte content than the non-shielded group. The increase of Lymphocytes above normal level increases the risk of leukemia, lymphomas, skin rash, etc.

RED BLOOD CELLS

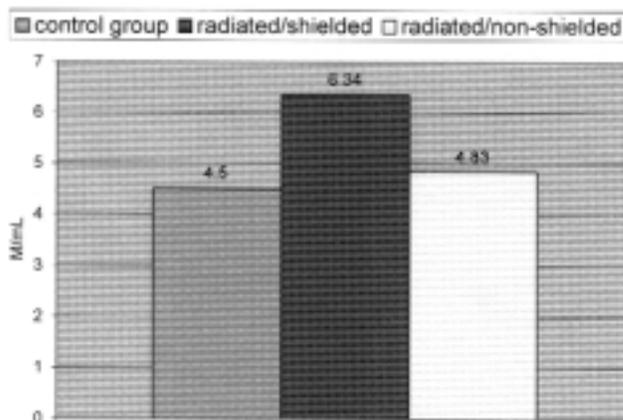
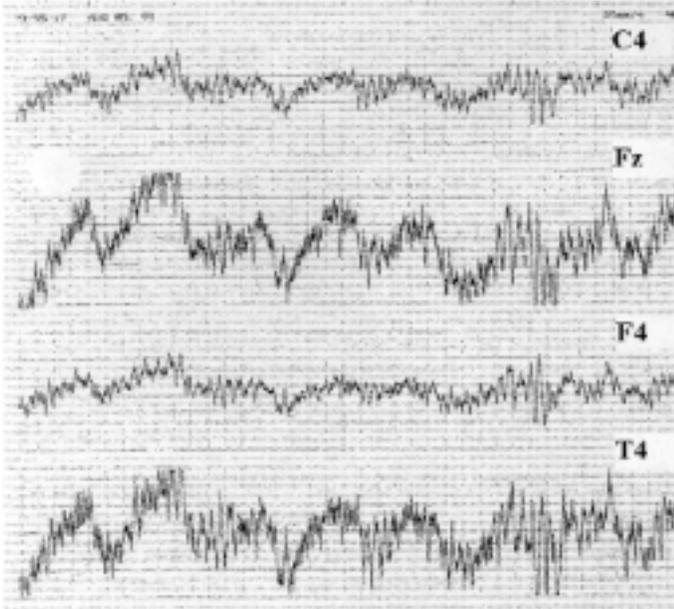
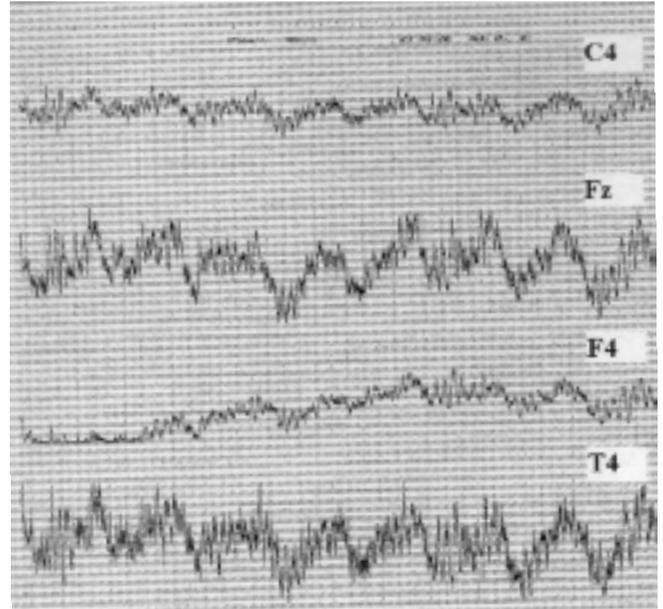


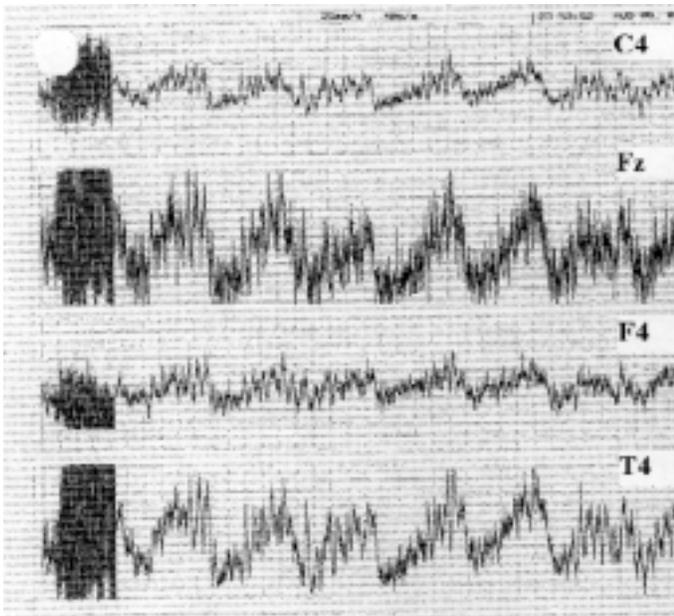
Figure 3. The RBC content in shielded group of blood samples increased by 41% and in non-shielded group only by 7%. The Red Blood Cells play a major role in the process of cellular oxigenation and the development of antibodies. Their increase is beneficial for the body.



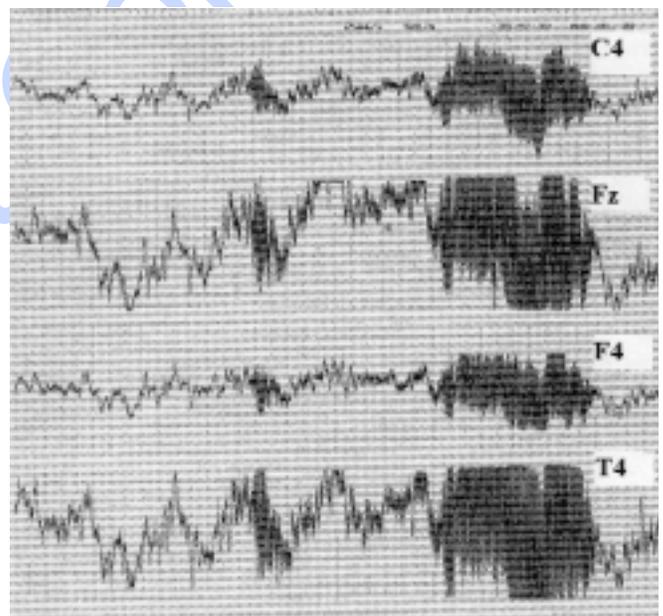
Control EEG chart of subject NOT introduced to EMR of cellular phone



CEEG chart of subject introduced to EMR of cellular phone with EMRON protection



EEG chart of subject introduced to EMR of cellular phone without any protection



EEG chart of subject introduced to EMR of cellular phone with Pulse Clean 21 (competitive product)

Figure 4. The installation of EMRON on the cellular phone synchronizes and calms down the brain function frequencies. This fact proves that EMRON neutralizes the electromagnetic stress and excitement caused by the effect of cellular phone on the brain functions.