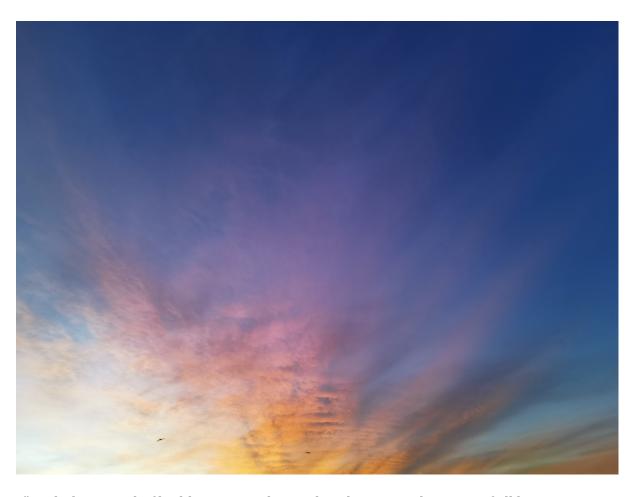
ADBIOSYS is proud to present you the DPE Technology to provide efficient solution to the development of nocives electromagnetics fields.



"With the arrival of highly energized particles, the genetic heritage of all living species on our planet could be severely affected"

# This technology is based on Nicolas Tesla works.



**PARAGRAPH 1: Challenge** 

PARAGRAPH 2: OBJECTIVES ACHIEVED BY THE DPE 100

**PARAGRAPH 3: DPE MODELS** 

PARAGRAPH 4: Theory and Hypothesis
PARAGRAPH 5: Measurements and Tests

PARAGRAPH 6: The evidence
PARAGRAPH 7: Biological evidence
PARAGRAPH 8: ALTERNATIVE SOLUTIONS
PARAGRAPH 9: Earth and Gravitational Forces

PARAGRAPH 10: Quantum Mechanical Explanation of Photonic Processes of the DPE 100

PARAGRAPH 11: Electronic explanation of the DPE 100 processes

PARAGRAPH 12: Physical explanation of the processes and operation of the DPE 100

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PARAGRAPH 14: photos DPE 100 and DPE Shield

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### PARAGRAPH 1: CHALLENGE

# DPE 100 (In Defense of the Planet Earth...)

With the basic version of the DPE 100 we truly have a device able of replacing the work of chlorophyll's photosynthesis of about 100,000 trees. So it is necessary to install at least 200,000 to get the work of 20,000,000,000 trees and completely restore the Magnetosphere.

This is a rapid response in a situation of extreme emergency since we only have a few years left to solve the problem.

But we know our limits as human beings and we have to let Nature do what even the best of technologies can do like She. Today we have 35% less oxygen than we normally need for the life of animals and humans. With the additional fires that have occurred, this percentage has further increased, which means that the children, the elderly, the weak, all the populations with nutritional deficiencies are the first to have survival difficulties, no one should be left behind ...

### PARAGRAPH 2: OBJECTIVES ACHIEVED BY THE DPE 100

#### FOR THE PLANET....

- 1. 1) REGENERATION of the Magnetosphere at the positioning point.
- 2. 2) REGENERATION of the Ozone layer.
- 3. 3) DRASTIC reduction of earthquake size.
- 4. 4) DRASTIC reduction of large meteorological phenomena such as hurricanes, water bombs, hail with oversized ice grains.
- 5. 5) DRAINING total electromagnetic pollution harmful to humans and animals but not to technological devices.

- 6. 6) RESTORATION of the sky and air quality as before the industrial era.
- 7. 7) DRASTIC reduction of Radioactivity.
- 8. 8) DRASTIC Radon gas reduction.
- 9) Positioned along the coast it re-harmonizes frequencies cetaceans (whales, dolphins, etc.) use to navigate and therefore avoiding stranding.

### FOR HUMAN AND ANIMAL BEINGS....

10) REDUCTION of the incidence of pathologies related to excessive microwave radiation such as leukemia, lymphomas, breast tumors, epithelial melanomas, brain tumors, changes in cell permeability, metabolism variation, changes in the glandular functions, the immune system, of the central nervous system and behavior, DNA damage.

For radiated electromagnetic power density greater than 50 milliwatts / cm2: possible brain lesions influence on cell growth, fetal malformations, internal burns, cataracts, death from heart attack. Other non- thermal or chronic effects for intensity lower than that, which determines the thermal effects, are the variation in the number of lymphocytes and granulocytes (experiments on cells), variations in the level of antibodies and macrophage activity (experiments on animals), tachycardia pain to the eyes, dizziness, depression, limitation of learning ability, memory loss, hair loss.

In the countries of Eastern Europe, studies have also shown: sterility, increased abortions, lowered fertility.

According to the US Environment Agency (EPA), out of eight epidemiological studies, five have shown statistically significant risks associated with: lymphatic and haemopoietic neoplasm total cancers in inhabitants (Hawaii) in close proximity to radio frequency (RF) towers, cancer of the hematopoietic system (leukemia, lymphoma and lymphosarcoma, melanoma and exposure to radiation (RF) in Polish officers and military personnel.

- 11. 11) DRASTIC odor reduction.
- 12. 12) DRASTIC reduction of damage to humans, property and livestock due to extraordinary meteorological phenomena.
- 13. 13) DRASTIC reduction of stress and depression due to electrostatic charges and harmful stray energies.
- 14. 14) Great improvement in sleep quality and rest.
- 15. 15) DRASTIC reduction of toxic substances.
- 16. 16) DRASTIC Ultrasound reduction.
- 17. 17) Clear increase in immune defenses.

### FOR AGRICULTURE....

- 18. 18) Nutritional values of fruit and vegetables doubled or tripled.
- 19. 19) Healthier plants with greener foliage.
- 20. 20) DRASTIC reduction of damage in agriculture due to extraordinary meteorological phenomena.
- 21. 21) Doubling of plants and their resistance to pathogens.
- 22. 22) Sensitive increase in the immune system of plants.

### **PARAGRAPH 3: DPE MODELS**

#### **DPE 100**

Designed for small extensions, such as condominiums, villas, ideal for cities. Maximum coverage radius 2 km and 200 km high. This version has already been upgraded due to the precipitation of events. <a href="https://www.thesun.co.uk/news/9929564/six-killed-in-spain-flash-floods-as-death-toll-rises/">https://www.thesun.co.uk/news/9929564/six-killed-in-spain-flash-floods-as-death-toll-rises/</a>

### **DPE SHIELD**

Designed for large extensions such as farms, industries, agricultural crops, livestock and cattle pastures. Maximum coverage radius 100 km and 250 km high.

# DPE SE (Symphony of the Earth)

In planning for very large extensions, achievable at the request of governments for uses of protection of the nation. Maximum coverage radius is currently being tested.

# PARAGRAPH 4: Theory

The first thing to understand is that:

Scientific research is a starting point, not an arrival point. Every team of researchers who publishes or divulges their studies does so, not to assert certainty, but to make sure that others, possibly widening their boundaries, confirm the results found.

Only research that establishes cause-and-effect links becomes science.

A scientific hypothesis - The basis of a hypothesis:

A hypothesis is a proposed solution to an unexplained phenomenon, which is not currently dealt with by scientific theory. The basic idea of a hypothesis is that it is not a predetermined result. For a hypothesis to become a scientific hypothesis, it must be proven or denied by experimentation or meticulous observations.

One of the key functions of the scientific method is that of being able to predict the results of an experiment through the hypothesis, and then conduct the experiment to confirm the assumptions.

### Test a hypothesis

It is important to note that all the above assumptions are verifiable. The primary trait of a hypothesis is that it can be tested, and repeated tests.

# **Hypothesis**

The basis of the hypothesis is that the creation of a specific equipment may be able to drain excess harmful energy and act as a rebalancing valve. This phenomenon should be measured and verifiable through "Measurements and Tests" with scientific equipment.

If this is actually achieved in the hypothesis, we should have a series of verifiable and repeatable consequences.

This means that first of all we should see a decrease in the amount of power of the energy (Milliwatts) in the environment between before the installation of the DPE and after. If this were confirmed, this absorption of the excess power of the harmful energy would have a series of consequences:

1) A lack of energy storage which would lead to a critical level leading to natural disasters; to be sure, this phenomenon should be repetitive and demonstrable with events that should have taken place meteorologically and instead not happened.

Balance of natural weather conditions.

- 2) An improvement in the state of health in the surrounding environment can be verified on equal terms with respect to before installing the DPE, since the excess power of the harmful energy does not occur.
- 3) If the equipment has the characteristics of a balancer, both the absorption of energy and the emission of a balancer flow should be detectable or ascertainable. However, we must consider that this output flow as it is metabolized by the Planet is not detectable by the equipment as very weak or balanced plasma magnetic field forces. However, one or more repetitive empirical consequences that can be visualized optically can be found.

### PARAGRAPH 5 : MEASUREMENTS

Before positioning the DPE Shield, several measurements of the microwaves have been recorded with time, temperature and humidity conditions.

The equipment used is the Electrosmog Meter (100 MHz - 8 GHz) by Cornet Microsystem Inc. Mod. ED 88T Plus.

We checked the consistency of a difference between the different measurements before and after the installation of the DPE, also compared in different conditions of humidity and temperature.

During the days, more surveys were made with both short and extended times.

All measurements were carried out in open environment and not inside the house at 3 meters distance and 2 meters high from the DPE.

This is very important because the Building Biology Evaluation Guidelines is for sleeping areas, and another important point is the distance measurement from the source of High Frequency and the Electrosmog Meter.

В	Building Biol (AC) for S					nes
>		omaly	No	Slight	Severe	Extreme
High Frequenc	HF µV	V/m² Peak)	< 0.1	0.1 - 10	10-1000	> 1000
dneuck	M with	nT	< 20	20 - 100	100-500	> 500
Low Fre	grounding cable potential-free	100	< 1 < 0.3	1 - 5 0.3 - 1.5	5 - 50 1.5 - 10	> 50 > 10

If you use the Electrosmog Meter (100 MHz - 8 GHz) by Cornet Microsystem Inc. mod. ED 88T Plus equipment is easier because you don't need to do a conversion from microWatts per square  $m\mu W/m2$  to milliWatts per square meter mW/m2 so the colours that you see on.

### $1 \mu W/m2 (microWatts) = 0,001 mW/m2 (milliWatts)$

So the colour that you can see in the upwards table are the same colours of the leds equipment because was set with this conversions already.

In the test below, the 2 most representative one-minute measurements with half a second for each reading were considered, and the relative videos are also available.

The first one was registered on Aug 22<sup>nd</sup> 2019 before the installation of the DPE and the second on Aug 27<sup>th</sup> 2019, ie 4 days after it was activated. We specify that the readings taken are to be understood preceded by 0,00 example the first reading is 0,0023 (look the photo below) the fifteenth instead is 0,0120 mW/m2



### Measurements table A

mW/m2	_				
22/8/19	Temperature	Humidity	mW/m2 27/08/19	Temperature	Humidity
	42°	27%	19	21°	70%
23			83		
23			20		
31			23		
23			21		
87			21		
25			21		
28			21		
25			21		
23			21		
23			21		
23			27		
23			115		
23			19		
120			21		
20			23		
28			21		
36			23		
27			32		
25			72		
31			25		
31			32		
138			28		
31			25		
43			39		
34			23		
31			95		
31			31		
31			27		
31			25		
43			39		
mW/m2	Temperature	Humidity	mW/m2 27/08/19	Temperature	Humidity

22/8/19					
34	42°	27%	23	21°	70%
31	-T-E	2770	95	21	7070
31			31		
31			27		
31			25		
34			25		
120			23		
31			21		
36			48		
27			115		
48			21		
27			23		
27			28		
28			23		
27			19		
31			77		
129			20		
31			21		
38			28		
34			20		
28			23		
34			20		
28			23		
34			20		
28			23		
34			20		
28			23		
34			20		
28			23		
34			20		
28			18		
107			89		
34			18		
mW/m2					
22/8/19	Temperature	Humidity	mW/m2 27/08/19	Temperature	Humidity
	42°	27%		21°	70%
25	-T-E	2770	18	21	7070
28			19		
31			25		
28			18		
100			120		
28			50		
34			19		
27			20		
31			17		
39			18		
28					
			18		
77			83		
28			17		
36			21		
27			17		
27			17		

27		18
31		20
141		32
27		18
31		20
141		32
27		18
31		20
141		32
27		18
32		87
27		18
28		28
27		14
28		15
72		18
•		

	12			10		
	mW/m2					
	22/8/19	Temperature	Humidity	mW/m2 27/08/19	Temperature	Humidity
		42°	27%	19	21°	70%
	31			95		
	34			19		
	28			23		
	31			18		
	28			18		
	100			17		
	32			19		
	50			20		
	27			115		
	31			15		
	31			18		
	23			20		
	112			18		
	23			23		
	28			20		
	27			120		
	25			52		
	28			31		
	102			23		
	27			19		
	25			21		
	25			18		
	21			138		
	23			18		
	31			23		
	23			18		
	91			21		
_	25			18	_	
	0,4828			0,3984		

READINGS TAKEN EVERY 1/2 SEC

Reduction to minute	-0,0844	-17,49%
	0,0844	mW/m2

From the figures, it can be deduced a difference of reduction on a constant rhythmic source of microwaves. The difference of 0,0844 between the two readings must be divided by congruity of detection calculation by 60.

The acquisition numbers of readings by the ED 88T Plus meter taken each 1/2 second determines a closer accuracy since it is a very short span of time.

From here we can see a reduction in the measured electrosmog of about 0,0844mW / m2 each min, corresponding to 17,49% less than the measurement without DPE intervention. To get a rough idea of the power absorbed by the DPE we consider that the DPE acts in a volumetric space of a paraboloid having the radius of 1 Km and the height of 200 Km.

Assuming for simplicity of calculation that the absorption is uniform and considering the flow of radiation that impacts on the surface of the paraboloid, an estimate of the absorbed power can be made through the following calculation:

- 1. 1) the surface of the paraboloid can be approximated to the lateral surface of a cylinder with a radius of 1km and a height of 200km
- 2. 2) the power is then calculated as the flux of the absorbed radiation considering the surface of the paraboloid
- 3. Since the surface of the paraboloid can be approximated with the formula:  $S = 2\pi r \times h$  the cylinder surface is approximately 1,256 km2.

The power that is obtained is 0,0844 mW / m2 to minute x 1.256 Km2 = 106.006.400,00 mW 1.256 square Km = 1.256.000.000 square Meters 1.256.000.000 square Meters x 0,0844 mW / m2 = 106.006.400,00 mW 106.006.400,00 mW= 0.1060064 MW (MegaWatts ) to minute 0.1060064 MW to minute x 60 minutes = 6,36 MW hourly

This is the measurable energy absorption power of the DPE, now we want to measure it over time so we have to consider 6,36 MW / h (power energy over time for 1 hour).

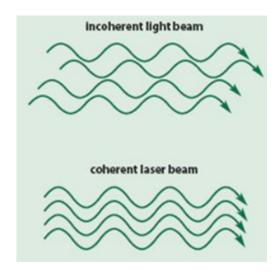
If we multiply this figure for 24 hours we will have 152,64 MW (MegaWatts ) per day. 152,64 MW (MegaWatts ) per day x 30 days = 4.579,20 MW (MegaWatts ) every month.

This is the scientific demonstration of how the strength of a power of a meteorological event, of an earthquake and of other static energies dangerous for man and the environment in the DPE area can be diminished. We specify that this is only one of the measured energies but in reality, the greatest work of the DPE takes place at the level of subtle energies extremely difficult to measure.

Wanting to make a comparison of what the DPE does it is as if it were transforming the light of a laser into that of a LED (Light Emitting Diode).

The difference is that the laser (light amplification by stimulated emission of radiation) has ample power, tens of watts, located only on one point. While the LED has a power in the order of mini watts. A LED has technical characteristics similar to those of a diode laser.

We have seen of the measurements that the DPE reduces the power of electromagnetic waves by definition the photon is precisely the quantum of the electromagnetic field. So the DPE does nothing but remove consistency to the photon beam by drastically decreasing the penetration capacity of electromagnetic waves without altering their frequency.



This weakening of excess energy occurs on all frequencies except on 13.4 Hz, we do not touch them because is the product of the life of the Earth, it is possible to exclude this because the vibration of Life and the summation of the interaction of specific forces created by an Intelligence Higher than man can understand.

Because of this lack of knowledge and selfishness, man has managed to unbalance the essential forces that are the pillars between cosmic forces and planetary forces of incalculable powers, on which the rule of the physics of emptiness exists. "The void is not empty but it is fuller of full "because to maintain a full suspended in the vacuum a force 5 times greater than the sum of the energy of the suspended mass is required. There is a precise balance present in the whole universe between visible matter and invisible space. We can demonstrate this with the information that follows, how nature responded in the environment where the DPE was positioned.

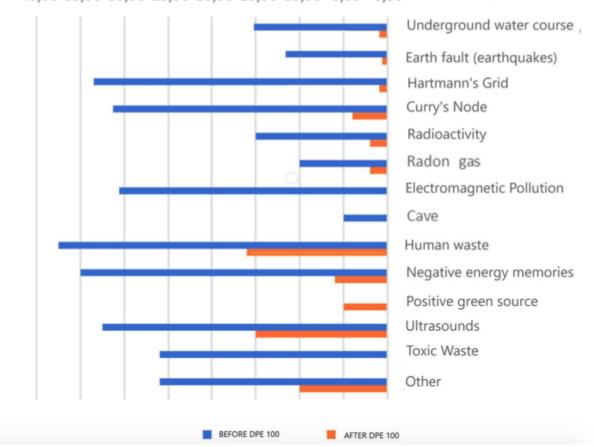
These measurements made with approved scientific equipment confirm the reduction of the power of the energy in the environment, we specify that this reduction is still in progress today and was therefore not only a momentary period.

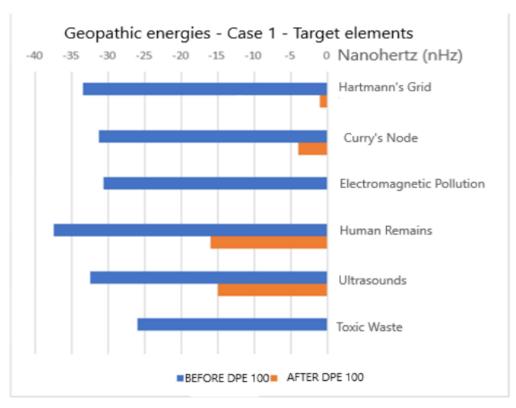
### **TESTS**

This is the summary of the analyzes carried out at our request by a private institute accredited in the analysis of environmental technologies.

# Geopathic energies

-40,00-35,00-30,00-25,00-20,00-15,00-10,00 -5,00 0,00 Microhertz (μHz)

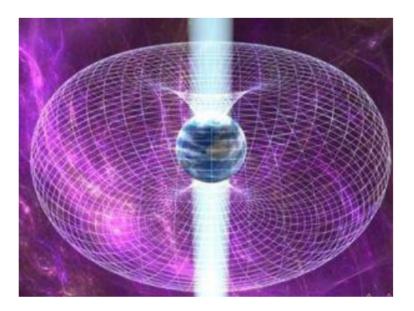




It is important to know how the DPE works.

We might think that before a catastrophic event, the area near the DPE will be low in energy. It is not so, because the DPE, collects all the excess energy in the environment within 100 km and more (DPE Shield), depending on the conditions, and discharges them at the speed of light.

All of this is fundamental because this guarantees safety at the DPE site, since the storing up of this energy does not occur, which would give rise to the catastrophic event. The areas outside the coverage of the DPE begin to accumulate excess energy because they are no longer subject to the vortex (toroidal) effect of the DPE.



The effect of the DPE has balanced the whole area.

A very important detail is that the DPE expresses the maximum reduction of the catastrophic event the more at the point of installation while the further away from it the less its coverage.

### How does it work?

There are currently two main excesses of energy. An artificial one due to the excess of photons that are released into the atmosphere artificially by man through equipment such as radar, microwave antennas (even 5G), radio transmissions, TV, practically all electromagnetic radiation.

We can consider this kind of energy with a trajectory almost parallel to the Earth's crust. When this type of energy is strong, it has the ability to penetrate the body and increase its internal degrees, altering both cellular and genetic functions, but also destroying cells. So in this case it is not the frequency that is harmful but the signal strength. This is an extremely widespread problem in the communications sector since in order to give optimal signal coverage a transmitter must emit a more powerful signal to guarantee a certain signal power and coverage.

The other source is solar radiation. They penetrate directly into the atmosphere because the shield that should prevent it, namely the magnetosphere, is weakened.

We can consider this kind of energy with a trajectory almost perpendicular to the Earth's crust. This energy, even if it has a certain stability, is susceptible to intense variations such as when solar flares occur. This excess of energy when it enters the atmosphere and is not reduced by the magnetosphere it materializes in the lower layers of the atmosphere creating catastrophic

phenomena. Depending on the height of this materialization, it creates 2 kg hail, water bombs, hurricanes, multiple lightning bolts of incredible power.

The thing is even more dangerous when an excess of energy is created due to the vertical and horizontal one, this explains why cities are most affected by these phenomena.

### How does the DPE act on these energies?

It takes this excess of energy and returns it to the Earth thus discharging the excess power. This is demonstrated by the readings of the equipment in the tests where the reduction of Watts per square meter is shown.

#### What does this entail?

- 1) The environment is balanced. The evidence of the balance is in the measurement chapter to measurements table A where the measurement threshold falls within the norm of the parameters considered.
- 2) Electromagnetic waves are deprived of penetration power and become harmless for all living beings. The evidence is in the end measurements table A where you can check a 17,49% reduction of the power of energy.
- 3) Thanks to the balanced environment and a reduction in the attack on the body by electromagnetic waves, the immune system is lightened and begins to repair and regenerate the body. This creates an improvement in the state of health.
- 4) A lower amount of energy that remains in the atmosphere reduces the possibility of accumulation to create the catastrophic event. The evidence is in the chapter evidence photos A-E where the civil protection physically found a progressive decrease in the meteorological condition due to the decrease in energy drained by the DPE.
- 5) The energy returned to the Earth allows it to respond by recreating the magnetosphere which will further protect that area by creating a further reduction of the catastrophic event.
- 6) This flow of energy that starts from the DPE and rises towards the magnetosphere pushes the chemtrails out of the DPE's range of action by cleaning the sky and making the cream- white clouds that we once had reappear.
- 7) This flow also pushes and transforms the corpuscular pollution suspended in the air. Therefore, you will notice a better air quality that optically appears cleaner with less unpleasant smells.
- 8) The Earth begins to emit, especially in the area immediately close to the DPE, up to about 4 meters, the most natural pulsation of vital energy. The plants become stronger and more luxuriant and grow towards the DPE, even if the branches are located towards the north.
- 9) Another effect that this pulsation creates a surrounding environment is the drastic reduction of the bacterial load.
- 10) This pulsation in that area also acts on the brain rhythms (Schumann resonance), creating a relaxation and a decrease in thoughts.

### PARAGRAPH 7: BIOLOGICAL EVIDENCE

### How the leaves grew near the DPE

We took two leaves from the same branch of the fig tree grown near the DPE, one prior to the installation of the DPE (the yellow one) and the other after the installation (the green one). The size of the yellow leaf is normally around 18 cm, the green one not only has reached 36 cm but the shade of green makes it clear that it is rich in organoleptic properties but also in chlorophyll.



# Chemtrails pushed away - Day 10 January 2020



### PARAGRAPH 8: ALTERNATIVE SOLUTIONS....

Alternatives to this type of solution are very few and to be correct, they could only be systems similar to ours and therefore with a direct connection to the ground with ground discharge.

On the market it is possible to buy equipment or even very expensive systems that are portable, to put at home or smaller to carry with them that would block the RF of the microwaves. These devices have no demonstrable scientific evidence with reliable and irrefutable tests as we believe they cannot function according to the laws of physics.

As for fabrics that would shield from 5G or microwaves in general, they are the result of pure commercial needs, not designed by any in-depth scientific research. In fact, even though the shielding is true, the damage caused is far worse than the microwaves themselves.

In fact the effect obtained is to close in a microwave oven and turn it on slowly. Let's see why:

- 1) The heat is not perceived by the internal organs as the thermal cutaneous sensors are external and therefore a slow cooking takes place day by day as the shielding clothes create a Faraday cage exactly like that of the microwave ovens; in fact you can notice on the glass of the oven small metal lines to keep the microwaves out. So microwaves penetrate both from the uncovered areas and bounce inside the body as they can't get out of it overheat.
- 2) The second source of heat is due to the friction of the microwaves outside the fabric that generate heat inside for a resonance effect.

Also this type of resonance creates the heat starting from the center of the body towards the outside so that it does not become perceptible by the sensors of the skin temperature. The resonance effect and the heat propagation direction are explained and shown in the link below. The ideal oscillation frequency for humans is exactly the same as in the microwave experiment with grapes, ie 10 Hz. Since this is only a summary it is possible to read our scientific presentation or visit the link below on the subject:

https://www.pnas.org/content/pnas/116/10/4000.full.pdf (look at the end of this paragraph)

3) The exposure of the body to the points mentioned above creates an alteration of the biomagnetism of the body.

To understand how this happens, do the following test, we did it:

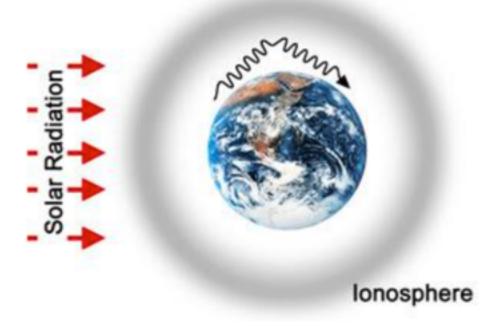
We measured the microtesla without a magnet and they were 20,022 microtesla. Then we took a magnet and measured the 412.00 microtesla that were in that specific position and distance. We wrapped the magnet in a plastic bag and exposed for 60 sec to 2428 MHz.

We immediately measured the magnet again in the same position and distance but the microtesla had gone down to 296.86. Another important detail was that the magnet became very hot. We cooled with running water and dried and the microtesla had fallen further to 67,179.

In a certain sense it is very similar to what it is currently happening to the Earth and we are in this situation:

The sun is hitting the Earth with large amounts of radiations, to which the cosmic ones are added, all of which overheats the planet and reduces the strength of the Earth's magnetic field, which prevents it from accumulating inside it so that it can enhance the magnetosphere. The details of this process are explained in our scientific presentation.

# Ionospheric EM Wave Propagation



This has a further effect on man as the parameters of the 7.8 Hz of the Schumann resonance change which currently has reached 16.5 Hz with peaks up to 30 Hz. The 7.8 Hz frequency has been for miles of years almost always the same and the human brain is created and harmonized with it, the sudden change creates imbalances with the alpha and theta waves of the brain and its activity.

Linking plasma formation in grapes to microwave resonances of aqueous dimers Hamza K.

a b a,1

Khattak , Pablo Bianucci , and Aaron D. Slepkov

a Department of Physics and Astronomy, TrentUniversity, Peterborough, ON, Canada K9L0G2; and Department of Physics, ConcordiaUniversity, Montreal, QC, Canada H4B 1R6 Edited by Catherine J. Murphy, University of Illinois at Urbana–Champaign, Urbana, IL, and approved January 9, 2019 (received for review October 25, 2018)

The sparking of cut grape hemispheres in a household microwave oven has been a poorly explained Internet parlor trick for over two decades. By expanding this phenomenon to whole spherical dimers of various grape-sized fruit and hydrogel water beads, we demonstrate that the formation of plasma is due to electromagnetic hotspots arising from the cooperative interaction of Mie resonances in the individual spheres. The large dielectric constant of water at the relevant gigahertz frequencies can be used to form systems that mimic surface plasmon resonances that are typically reserved for nanoscale metallic objects.

The absorptive properties of water furthermore act to homogenize higher-mode profiles and to preferentially select evanescent field concentrations such as the axial hotspot. Thus, beyond providing an explanation for a popular-science phenomenon, we outline a method to experimentally model subwavelength field patterns using thermal imaging in macroscopic dielectric systems.

# Microwave photonics / Dielectric resonators / Plasma ionization / Hydrogels / Morphology-dependent resonances

It is a truth universally acknowledged that a pair of grape hemi- spheres exposed to intense microwave radiation will spark, igniting a plasma. This parlor trick has become a mainstay of science-fair projects and popular-science blogs (1), as well as online videos for over two decades (a YouTube search for "grape plasma microwave" will show numerous results for the phenomenon). The phenomenon is invariably demonstrated with a grape, cut in half with a thin line of skin left to bridge the two hemispheres and irradiated in a household microwave oven for a few seconds, sparking a plasma from the skin bridge. Numerous online videos that demonstrate this effect in an identical arrangement have garnered millions of views. While no formal literature exists to offer a physical explanation for this phenomenon, several popular-science sources online presume that the pair of hemispheres act as a short dipole antenna of sorts, with the conductivity of the wet and ion-rich skin bridge being a key component.

While an explanation based on surface conductivity is a priori plausible, we present evidence that the effect has a bulk optical origin. Specifically, that the effect is a result of aqueous dielectric objects displaying morphology dependent resonances (MDRs) at microwave frequencies. MDRs are synonymous with Mie resonances, which describe the near field effects of resonant interactions of light with wavelength scale objects. The objects can be conductive or dielectric and absorptive or transparent, depending on the complex dielectric permittivity of the material. Research into pairs of conducting particles at nanoscales and microscales has shown an ubiquity of hotspots at the point of contact. Such surface plasmon resonances (SPRs) are localized to the surface and have been used to probe or excite molecular species that are too small to resolve by traditional optical methods. The fact that nonabsorbing, nonconductive dielectrics can form MDR hotspots has garnered considerable recent attention.

In this article, we present methods for studying Mie resonances in absorbing dielectrics in the microwave regime. With thermographic studies, we offer a low tech method for experimentally measuring internal and evanescent near field electromagnetic concentrations with subwavelength resolution. We combine these methods with finite element simulations to show progressions from isolated resonances to coupled-resonator supermodes in aqueous dimers. The hotspots formed represent superfocusing on the order of  $\lambda 0/100$ . With these tools, we provide a detailed description and explanation of plasma formation from fruit dimers in a microwave oven, as well as opening a sandbox for the study of nanocluster photonics using absorbing dielectrics.

# The Formation of Plasma from Aqueous Dimers

### **Significance**

In a popular parlor trick, plasma is created by irradiating grape hemispheres in a household microwave oven. This work ties the source of the plasma to microwave photonic hotspots at the junction of aqueous dielectric spherical dimers. We use a combination of thermal imaging techniques and computer simulations to show that grape sized fruit and hydrogel beads form resonant cavities that concentrate electromagnetic fields to extreme subwavelength regions. This is enabled by the large dielectric susceptibility of water at microwave frequencies. Furthermore, the absorptive properties of water are key to washing out complex internal modes and for allowing the evanescent hotspot build-up. Our approach to microwave resonances in high- dielectric materials opens as and box for nanocluster photonics research.

Author contributions: A.D.S. conceived research; H.K.K., P.B., and A.D.S. designed research; H.K.K., P.B., and A.D.S. performed research; H.K.K., P.B., and A.D.S. contributed new reagents/analytic tools; H.K.K., P.B., and A.D.S. analyzed data; and H.K.K. and A.D.S. wrote the paper.

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To whom correspondence should be addressed. Email: aaronslepkov@trentu.ca. This article contains supporting information online at www.pnas.org/lookup/suppl/doi:10. 1073/pnas.1818350116/-/DCSupplemental. Published online February 19, 2019.

### PARAGRAPH 9 Earth and Gravitational Forces

The official science believes that the force of gravity lies in a ferrous incandescent core in the center of the Earth. This is wrong as it is matter itself that is magnetic. Even our concept of magnetism must be modified as it is a real intelligence of the molecules that other scientists had previously hypothesized and discovered.

The magnetic atom is the Life, the primary order of the materialization of our dimension, and through this it is possible the interaction between the molecules otherwise we would not even be able to touch anything. If this were not the case, we would be just pure energy like other more evolved dimensional beings than us. But living in this three-dimensional dimension we must respond to its laws, and these are based on magnetic atoms and all matter is. All this makes us understand that matter far beyond what we do not know and that there is a superior intelligence that we perceive but do not understand, we do not know how to use and let alone interact.

### If science had really understood this, we would not have brought the planet to this point.

Now imagine the Earth as a magnet and the Earth's crust as a plastic shell that covers it, keep on imagining all the radio frequency waves especially those microwaves that are stationed on the planet and that add up to the solar ones. To make us understand this new concept we have made a simple experiment that is easily reproducible:

We measured 20.022 microtesla precisely at the place where we would later position a magnet:



Then in that place we measured 412.00 microtesla of the magnet:



We wrapped the magnet in a small plastic casing and put it in a microwave oven with the power 2428 MHz as measured below for 1 minute:



As soon as the magnet was pulled out, the plastic that wrapped it was almost loose and the magnet was very hot. We therefore immediately measured the power of the magnet and noticed a significant reduction in the microtesla:



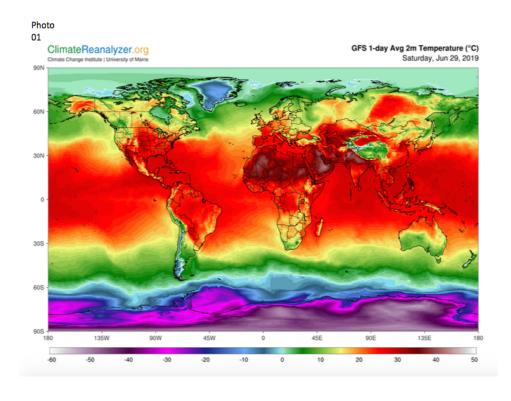
which has continued to decline over time and cooling ...



### Now let's see this effect on the planet in practice :

There are 3 important factors to put together:

The first is in fact the rapid thinning of the ozone layer, this is leading the planet to overheating due to the "greenhouse effect" and less protection from solar flares (https://en.wikipedia.org/wiki/Solar\_flare), the consequence on 29 June 2019 is this:



### The situation has reached critical levels:

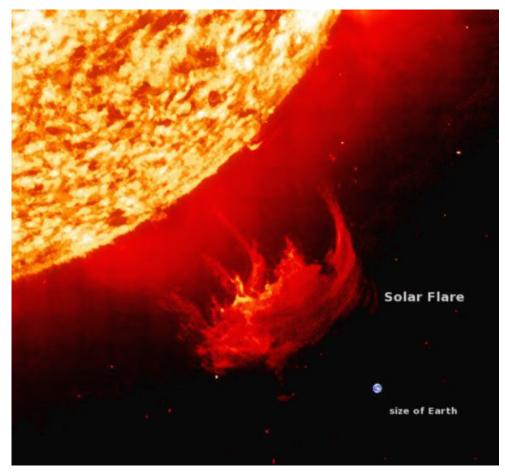
Kuwait burning. Temp hit 62c. Bushes and trees burnt out. https://www.youtube.com/watch?v=LrpYoyzC1nM

The auto combustion of trees is a very important event, as it is not controllable. If it suddenly began to happen in a forest or several forests, they would burn very quickly in a chain effect.

The second is the consequence due to the expansion of the solar flares and the solar corona. Solar flares affect all layers of the solar atmosphere (photosphere, chromosphere and corona). Through a plasma that has a temperature of tens of millions of Kelvin, the heaviest electrons, protons and ions are accelerated to reach the speed of light.

The flares produce electromagnetic radiation with an electromagnetic spectrum of all wavelengths, from radio waves to gamma rays. Most of the energy is distributed over frequencies outside the field of view and therefore most flares are not visible to the naked eye and must be observed with special instruments. The flares occur in the active regions around the sunspots, where intense magnetic fields penetrate the photosphere to connect the corona with the inner part of the sun.





The third is electromagnetic pollution, and of this the aspect that we must consider more in this moment is the photonic distribution in the environment.

When these three factors combine, various consequences are obtained, the first is a photonic overload and great energy intensity. When this happens, the electric energy cannot flow in the electric cables because the environment around it is very ionized and therefore the electric energy is dispersed in the air; this creates these phenomena:

Blackout in Argentina, Paraguay and Uruguay, but which also affected parts of Brazil, Bolivia, Chile and Peru.Blackout in Argentina and Uruguay: 50 million people for hours without energy. (<a href="https://www.repubblica.it/esteri/2019/06/16/news/argentina">https://www.repubblica.it/esteri/2019/06/16/news/argentina</a> e uruguay senza corrente elettrica -228901071/) <a href="https://en.wikipedia.org/wiki/2019">https://en.wikipedia.org/wiki/2019</a> Argentina, Paraguay and Uruguay blackout

From other information and data we received, we can confirm that an event of this kind is taking place which is much larger and on a large scale that will affect different nations. In the past this has already happened (https://www.thesun.co.uk/tech/8622807/solar-storm-effects-discovery-greenland) cracking the Earth's magnetic field (https://physics.aps.org/synopsis-for/10.1103/PhysRevLett.117.171101).

A notable effect of the DPE is the climatic one, in the sense that the area of "sky" rebalanced electrically by the device will no longer be subject to extreme meteorological phenomena that can be triggered in it. Basically in the sky hemisphere above the DPE 100, of variable radius depending on the configurations, you will no longer see those extreme phenomena such as "water bombs" or "tropical hurricanes" that are now spreading even in Europe (Italy). This effect, in technical terms, can be defined as a rectification of stray currents in the atmospheric environment, now no longer able to create local collapse of the (electro) magnetic field and consequently of the barometric one.

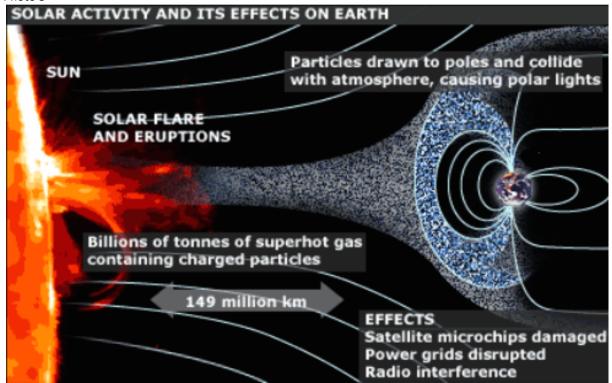
### Now let's see how this happens:

A giant cloud of plasma magnetized during the Solar Flare is ejected from the Sun. In a period of time that is variable but less than forty-eight hours, the particles crash into the Earth's magnetosphere, causing a severe geomagnetic storm that puts radio signals out of action, damages electrical systems, creates large black outs, destroys satellites in orbit.

New observational data from the GRAPES-3 cosmic ray telescope in India have shown that during the Solar Flares an unusually high flow of cosmic rays is generated which succeeds in penetrating the magnetosphere during this storm, causing a shower of cosmic rays on Earth. The simulations performed by the GRAPES-3 collaboration, which includes researchers from India and Japan, suggest that the explosion of cosmic rays could penetrate because the geomagnetic storm has temporarily weakened the polar magnetic field of the Earth.

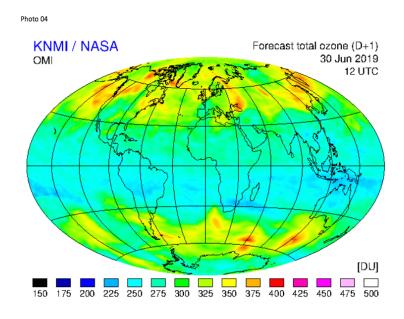
The Earth's magnetic field deflects most cosmic rays, protecting living beings from harmful radiation. But the great geomagnetic storms can reconfigure this protective shield, opening up weak spots that let pass rays of other frequencies and cosmic rays. This vulnerability can occur when the magnetized plasma from the Sun deforms the Earth's magnetic field, extending its shape to the poles and decreasing its ability to deflect charged particles. This occurs when the magnetosphere is weaker.

Photo 3



Now, based on what has just been described, it is possible to understand that there is a direct relationship between the area of magnetic overheating in Photo 1 and the same area exposed to the solar magnetized plasma in Photo 3.

In fact, although satellite measurements have recently ascertained that the ozone layer has thickened at the poles, it is also true that this has come at the expense of the zone between them (https://www.atmos-chem-phys.net/18/1379/2018/) See Photo 4 below:



In photo 4 there is a chromatic scale for DU (Dobson Unit) units.

The Dobson unit (DU) is a unit of measurement of the quantity of a gas drawn in a vertical column through the Earth's atmosphere. The Dobson unit is the most common unit for measuring ozone concentration. It is the number of ozone molecules that would be needed to create a 0.01 mm thick layer of pure ozone at a temperature of 0 degrees Celsius and a pressure of 1 atmosphere (the air pressure on the Earth's surface).

Expressed in another way, an air column with an ozone concentration of 1 Dobson unit would contain about 2.69x10 16 ozone molecules for every square centimeter of area at the base of the column. Above the Earth's surface, the average thickness of the ozone layer is about 300 Dobson units or a 3 mm thick layer.

The average amount of ozone in the atmosphere is around 300 Dobson units. What scientists call the "hole" of Antarctic ozone is an area in which the concentration of ozone drops to an average of about 100 Dobson units. A hundred Dobson units of ozone would form a layer only 1 millimeter thick if it were compressed into a single layer, about a cent height. All this can be easily seen in photo 4.

The considerable reduction in the ozone layer generates a series of serious pathologies that we are not listing but this information is readily available. It is therefore necessary to protect ourselves and protecting the Planet.

One of the tasks of the DPE 100 is precisely this to increase the ozone layer where it is positioned protecting the area where it is installed. The goal is to install many in order to create a network capable of creating a thickening of the ozone layer and strengthen the magnetosphere to protect the Earth when there is the Big Solar Flare.

This is the effort needed to create the shield in Defence of Planet Earth (with this DPE Tools).

A <u>network</u> that creates a shield not only of ozone but also of balancing, strengthening the strength of the Earth's magnetic field.



These are just some of the positive effects, but there are other additional direct benefits such as a better balancing of the weather and seismic conditions, avoiding huge damage from tornadoes or water bombs. (http://canyouactually.com/this-incredibly-rare-rain-bomb- falling-from-the-sky-looks-

Photo 06



A very important feature is that it makes the place where it is installed protected also from attacks with artificial climate alterations. With this technology, of which Tesla was the inventor, it is possible to control the weather climate through the transmission of small signals in the ionosphere which is an active electric shield that protects the planet from the constant bombardment of high energy particles that come from space.

With different technologies a small high frequency signal (HF) is sent into the ionosphere where it is relatively unstable. If the ionosphere is strongly disturbed consequently the atmosphere under it will also be so the various atmospheric but artificial "natural" catastrophes are generated. While for the interaction with the Earth's crust, low frequency waves are used (EFL and VLF). Another important aspect to consider is electromagnetic pollution. The transmissions of mobile phones, radar, television, satellite etc., create a large amount of wandering waves in which we are immersed. They cause different problems, and can even be deadly to humans and the environment.

What is the common factor in what has been described so far? The electromagnetic wave.

The "particles" of electromagnetic waves are called photons, from the Greek fos, fotos which means light. When observing the telescope, the photons "impact" on the detectors, which work by "counting" the photons that fall on the individual pixels of the detector: in this way, the photons are considered as particles. When instead spectroscopy is performed, the wave nature of the radiation that reaches the instrument is used: and here comes into play electromagnetic waves.

So if we want to make a simple deduction of what has been described above we can consider 2 main sources of direction of photons, one from space, and therefore mainly from the Sun towards the Earth and another from the inside of the Earth outside it.

In fact, with the use of electrical equipment I constantly extract a series of photons that are distributed on the Earth's surface through communications, electromagnetic fields, electricity, etc. This extraction and disharmonic distribution has created less power in the Earth's core which has as its immediate effect a weakening of the magnetosphere and therefore a greater vulnerability of the planet.

The Earth is a kind of mega conductor that uses the magnetic field, when we produce anything with our technologies and therefore frequencies these are energies that travel in this mega conductor and that are aligned in a kind of frequencies that bounce off a part to the other until you arrive at your destination. But even when they arrive at their destination they always remain in the atmosphere and continue to move inside it.

For example, when we make a call when the person answers the phone the photonic transmission prior to the call ends, before answering the phone everything that is produced in return produces 1000 000 more times what you use because most of the energy you produce continues to remain in the ETHER, so let's imagine for all the cellular phone calls that there have been until now of all of all the telephones, all the radar signals emitted, all the tv transmissions, waves court etc; the 5G which destroys neurons, destroy marrow cells, bring blindness, fast multiple sclerosis. In reality, even if we were to live in an isolated place in nature, there could be a 500 km radar which is a magnetron that emits magnetic flux density (gauss) in our direction that over time leads to sterility, lowered vision, diseases of the thyroid etc.

The Earth is like an ocean that communicates with all of us and we are an integral part of it. When we think of the continuous stranding of whales, they are much more evolved beings than we imagine; they use the pineal gland and we do not.

#### A test was done:

They isolated a small newborn whale and although he never knew where the breeding place was when he was released as an adult, he travelled 9,000 km to arrive in South Africa in a particular area. Without GPS technology, the whale can leave and return to those two places all alone for life. The stranding of these highly sensitive and evolved animals is the clearest example of the disaster we are creating, and this is increasing and involving more and more species as well as us.

We are already at the beginning of this phase; because of this there are so many people who kill each other, because they are more sensitive to these changes. Even the less sensitive are unsafe, because when you are immersed in radiation, sooner or later the damage arrives, we are all connected.

The magnetic field on Earth is called E4, known as Tetatron. The Tetatron is an intelligent system where a specific biological characteristic develops in every corner of the Earth. And this is written in the E4 program, the signal of life. This signal is a photonic signal with a frequency of 13.4Hz which is the heartbeat of life. If we have at this frequency of 14Hz we add that of GSM, then 5 GHz and radar, etc., it is evident that these signals are merging with the signal of life of this planet and it is obvious that this overloaded signal lowers its impedance, which is the force of opposition to the passage of the sun's radiation, and the sun's radiation instead of supporting us, begins to destroy everything.

The DPE 100 does from the bottom down what the biosphere had to do from the top to the top. It is able to neutralize earthquakes because they are nothing but the overload of solar energy. There are moments in which plasma is removed from the sun, called solar glow, which when this phenomenon occurs, as already described in this report about the blackout in South America of 06/16/2019, it was no longer possible to transport the energy in the electric cables because the atmosphere was so saturated with photonic energy of the sun that it shorted the cables because their electric energy was dispersed in the ETHER.

The current solar instability is demonstrating the ever-increasing quantity and magnitude of these solar flares and therefore once the electricity is no longer traveling in cables but in the ETHER, if we do not create a network of DPE 100 very soon, we will be very soon without electricity, mobile phones and communication - and we do not know for how long, this is directly proportional to the size and duration of the solar glow, which could even be years.

Now we are already seeing anomalous meteorological phenomena such as tornadoes or hurricanes of great intensity in non-subject areas, large with pieces of 2 Kg.

### We have arrived at a point of no return.

The DPE 100 is a drain valve that allows 297,000 km / sec (speed of flow of electrons in a conductor) to be cleaned at the speed of light, the excess of energy, once and for all, and after cleaning that territory it works as a cell depression starting to clean around that area too. It is therefore necessary to create a network in a balanced and spaced-out form that is also programmed to guarantee the health of people and the environment because radiation is too high, in fact blood and immune system diseases are inexplicably increased, as well as blindness, parkinson's etc.

But we must also think about the planet because anomalous meteorological events are already happening that are causing the death of people. The energy charges the environment and then it is discharged through lightning, etc. ... In a local storm the highest average was 180 lightning today is 76,000 lightning storms, this tells us that the phenomena undergo external energy charges which is due to E4 saturation.





### **LIGHT PHOTOS**

One hundred years ago, it was possible to hear thunder every couple of minutes or lightning when you were positioned in the center of the storm, now the Earth is shaking with the power of lightning and they are in exponential quantities. A thunderstorm 100 years ago developed a force of 10 times that of an atomic bomb; so, from 150 to 200 Kilotons today instead 76,000 lightning develops the strength of 10 H bombs and therefore from 100 Megatons, almost 1,000 times more.

We are one step closer to a chain domino effect. This is not marketing but is derived from extensive research and studies.

### PARAGRAPH 10

Quantum Mechanical Explanation of Photonic Processes of the DPE 100

The first basic aspect to consider is the concept of radiated energy and more specifically that of the photon particle. This massless particle, with zero electric charge and whole spin, elementary constituent of electromagnetic radiation; it is also called the quantum of energy.

### Properties of photons:

- Photons always move at the speed of light.
- Photons are electrically neutral.
- Photons have no mass, but have energy  $E = hf = hc / \lambda$ . Here h = 6.626 \* 10-34 Js is a universal constant called Planck constant. The energy of each photon is inversely proportional to the wavelength of the associated EM wave. The shorter the wavelength, the more energetic the photon, the longer the wavelength, the less energetic is the photon.

A laser beam and a microwave beam can carry the same amount of energy. In this case the laser beam contains a smaller number of photons, but each photon in the laser beam has an energy higher than that of the photons in the microwave beam.

Photons can be created and destroyed. When a source emits EM waves, photons are created. When photons encounter matter, they can be absorbed and transfer their energy to atoms and molecules. The creation and destruction of photons must conserve energy and momentum. The magnitude of the momentum of a photon is  $p = hf/c = h/\lambda$ .

We have discovered that all the electromagnetic signal transmitters together create a veritable sea of photonic waves floating on the Earth's surface. But all this energy from where it is extracted? An atom absorbs and emits photons when an electron moves from one energy level to another.

In a quantum atom the electrons are negatively charged particles that orbit around the atom in a given energetic level, on an orbital of a particular shape and orientation (sub-level). The excited electron spontaneously loses energy and, due to the attraction force of the atomic nucleus, it moves again on a more internal energetic level (energy jump towards the inside). The innermost energy level requires less energy than the previous one.

Therefore, to stabilize on the new orbital the electron must release the excess energy in the form of a photon. In this way, the electron loses the excited state and returns to the initial fundamental state. The energy jump on the innermost orbit determines the emission of the photon by the atom. At this time and only at this moment, an irradiation of energy towards the outside occurs from the electrons of the atom.

There is another aspect to consider when releasing photonic energy and it is the Mössbauer effect. It describes the following phenomenon: "A nucleus with Z protons and N neutrons

that is in an excited state of energy Ee, makes a transition to the ground state of energy Eg by emitting a photon of energy .-E E e g This photon can be absorbed by a nucleus of the same type (ie with the same values of Z and N) that is in the ground state causing a transition to the excited state of energy Ee; this phenomenon is called resonance absorption and occurs because the energy of the photon emitted by the first nucleus is equal to the energy difference between the fundamental level and the excited level of the second nucleus. On some nuclei, such as the, 57 26Fe when the atom is in the gaseous state and is therefore free to move, the phenomenon of absorption by resonance does not manifest itself as it occurs when the atom is in an iron block; this phenomenon is known as the Mossbauer effect ".

#### Correlation of the DPE 100 and Photonic activity of the species

As already explained before we know that the photonic frequency of the life of this planet is of 13.4 Hz, every mineral species, vegetable, animal and man included has specific frequencies where it is possible for that species to survive. When these parameters are less in a certain area more or less extensive we have phenomena like this:







This selective species death is exactly due to the exceeding of the threshold of the parameter of that species and therefore in that area the other species survive because they have different parameters and one instead dies in mass.

For the human species, the tolerance of life is below 0.05 kHz, above this threshold the life of man is compromised. The ideal threshold for humans is 0.01 kHz or 10 Hz.

This is exactly what DPE 100 creates, as microwaves and other harmful frequencies prefer absorption through it rather than being picked up first by the body of Man or animal. We have to open our mind to a knowledge that has long been denied or distorted and that is that man is made of light and frequencies, magnetism and electricity this is - and we answer in harmony to specific laws and parameters.

Man is made of light and frequencies - Biophotonic:

# **Biophotonics**

To understand Biophotonics, we must necessarily give a nod to how light interacts with biology through biophotons and the discoveries of Prof. Fritz-Albert Popp. Studying the effect of radiation on living systems, Professor Popp came across some very interesting properties of carcinogenic chemical compounds: these compounds act as "remixers of frequencies" in a very precise range, that of the 380 nanometers. The light we see around us is generally composed of a set of infinite components, each with a precise frequency and wavelength (the wavelength is equal to the speed of light divided by frequency, then a single component of light can be characterized uniquely by any of the two parameters).

Biophotonic radiation is used by the cells of a living organism for one sort of very efficient intercellular electromagnetic communication, which is also exchanged between organisms of the same species (from bacteria to water fleas), and the living molecule that more than any other is deputed to the reception and transmission of bio-photons is DNA.

All of these discoveries combined destroyed the entire axiomatic construct of orthodox biology founded on the primacy of DNA and opened the way to the new biology based on undulatory genetics and epigenetics (branch of molecular biology that studies genetic mutations and transmission of inherited traits not directly attributable to the DNA sequence).

Specifically using the benefit of this technology in the inner part of the product that touches the skin, tissue has been positioned with exactly the wavelength of 380 nanometers. This enables the speeding up of tissue repair and the recovery and healing process, as this information is constantly transmitted to the cells.

This makes us understand how close the relationship between photons, frequencies in the human species is and also gives us the real explanation of the reasons that generate diseases and why, contrary to a greater knowledge in the medical scientific field there is a greater onset of diseases and also of types that were previously extremely rare.

# Biomagnetism

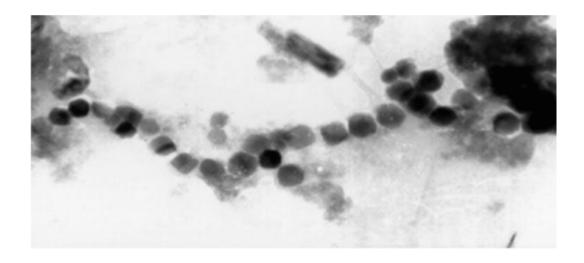
Scientists have tried to investigate whether humans belong on the list of magnetically sensitive organisms. For decades, there's been a back-and-forth between positive reports and failures to demonstrate the trait in people, with seemingly endless controversy. The mixed results in people may be due to the fact that virtually all past studies relied on behavioral decisions from the participants. If human beings do possess a magnetic sense, daily experience suggests that it would be very weak or deeply subconscious. Such faint impressions could easily be misinterpreted – or just plain missed – when trying to make decisions.

So a research group – including a geophysical biologist, a cognitive neuroscientist and a neuroengineer – took another approach. What they found arguably provides the first concrete neuroscientific evidence that humans do have a geomagnetic sense.

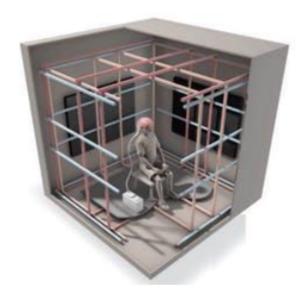
The Earth is surrounded by a magnetic field, generated by the movement of the planet's liquid core. It's why a magnetic compass points north. At Earth's surface, this magnetic field is fairly weak, about 100 times weaker than that of a refrigerator magnet.

Over the past 50 years or so, scientists have shown that hundreds of organisms in nearly all branches of the bacterial, protist and animal kingdoms have the ability to detect and respond to this geomagnetic field. In some animals – such as honey bees – the geomagnetic behavioral responses are as strong as the responses to light, odor or touch. Biologists have identified strong responses in vertebrates ranging from fish, amphibians, reptiles, numerous birds and a diverse variety of mammals including whales, rodents, bats, cows and dogs – the last of which can be trained to find a hidden bar magnet. In all of these cases, the animals are using the geomagnetic field as components of their homing and navigation abilities, along with other cues like sight, smell and hearing.

Skeptics dismissed early reports of these responses, largely because there didn't seem to be a biophysical mechanism that could translate the Earth's weak geomagnetic field into strong neural signals. This view was dramatically changed by the discovery that living cells have the ability to build nanocrystals of the ferromagnetic mineral magnetite — basically, tiny iron magnets. Biogenic crystals of magnetite were first seen in the teeth of one group of mollusks, later in bacteria, and then in a variety of other organisms ranging from protists and animals such as insects, fish and mammals, including within tissues of the human brain.

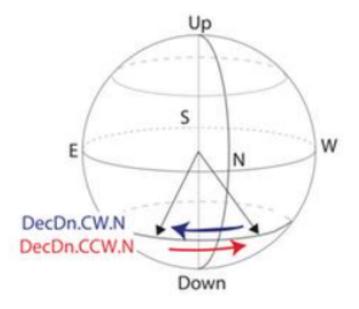


Chains of magnetosomes from a sockeye salmon. Mann, Sparks, Walker & Kirschvink, 1988, CC BY-ND Nevertheless, scientists haven't (yet) considered humans to be magnetically sensitive organisms. Manipulating the magnetic field, Schematic drawing of the human magnetoreception test chamber at Caltech. Modified from 'Center of attraction' by C. Bickel (Hand, 2016).



In this new study, we asked 34 participants simply to sit in our testing chamber while we directly recorded electrical activity in their brains with electroencephalography (EEG). Our modified Faraday cage included a set of 3-axis coils that let us create controlled magnetic fields of high uniformity via electric current we ran through its wires. Since we live in mid-latitudes of the Northern Hemisphere, the environmental magnetic field in our lab dips downwards to the north at about 60 degrees from horizontal.

In normal life, when someone rotates their head — say, nodding up and down or turning the head from left to right — the direction of the geomagnetic field (which remains constant in space) will shift relative to their skull. This is no surprise to the subject's brain, as it directed the muscles to move the head in the appropriate fashion in the first place.



Study participants sat in the experimental chamber facing north, while the downwards-pointing field rotated clockwise (blue arrow) from northwest to northeast or counterclockwise (red arrow) from northeast to northwest. Magnetic Field Laboratory, Caltech, CC BY-ND

In this experimental chamber, it was possible to move the magnetic field silently relative to the brain, but without the brain having initiated any signal to move the head. This is comparable to situations when your head or trunk is passively rotated by somebody else, or when you're a passenger in a vehicle which rotates. In those cases, though, your body will still register vestibular signals about its position in space, along with the magnetic field changes – in contrast, our experimental stimulation was only a magnetic field shift. When we shifted the magnetic field in the chamber, our participants did not experience any obvious feelings.

The EEG data, on the other hand, revealed that certain magnetic field rotations could trigger strong and reproducible brain responses. One EEG pattern known from existing research, called alpha-ERD (event-related desynchronization), typically shows up when a person suddenly detects and processes a sensory stimulus. The brains were "concerned" with the unexpected change in the magnetic field direction, and this triggered the alpha- wave reduction. That we saw such alpha-ERD patterns in response to simple magnetic rotations is powerful evidence for human magnetoreception.

Our participants' brains only responded when the vertical component of the field was pointing downwards at about 60 degrees (while horizontally rotating), as it does naturally here in Pasadena, California. They did not respond to unnatural directions of the magnetic field – such as when it pointed upwards. We suggest the response is tuned to natural stimuli, reflecting a biological mechanism that has been shaped by natural selection.

The researchers have shown that animals' brains filter magnetic signals, only responding to those that are environmentally relevant. It makes sense to reject any magnetic signal that is too far away from the natural values because it most likely is from a magnetic anomaly - a lightning strike, or lodestone deposit in the ground, for example. One early report on birds showed that robins stop using the geomagnetic field if the strength is more than about 25 percent different from what they were used to. It's possible this tendency might be why previous researchers had trouble identifying this magnetic sense – if they cranked up the strength of the magnetic field to "help" subjects detect it, they might have instead ensured that subjects' brains ignored it.

Moreover, this series of experiments show that the receptor mechanism – the biological magnetometer in human beings – is not electrical induction, and can tell north from south. This latter feature rules out completely the so-called "quantum compass" or "cryptochrome" mechanism which is popular these days in the animal literature on magnetoreception. Our results are consistent only with functional magnetoreceptor cells based on the biological magnetite hypothesis. Note that a magnetite-based system can also explain all of the behavioral effects in birds that promoted the rise of the quantum compass hypothesis.

The participants to the experiment were all unaware of the magnetic field shifts and their brain responses. They felt that nothing had happened during the whole experiment – they'd just sat alone in dark silence for an hour. Underneath, though, their brains revealed a wide range of differences. Some brains showed almost no reaction, while other brains had alpha waves that shrank to half their normal size after a magnetic field shift. It remains to be seen what these hidden reactions might mean for human behavioral capabilities.

A human response to Earth-strength magnetic fields might seem surprising. But given the evidence for magnetic sensation in our animal ancestors, it might be more surprising if humans had completely lost every last piece of the system. Thus far, we've found evidence that people have

working magnetic sensors sending signals to the brain – a previously unknown sensory ability in the subconscious human mind. The full extent of our magnetic inheritance remains to be discovered.

### **RESOURCES:**

http://theconversation.com/new-evidence-for-a-human-magnetic-sense-that-lets-your- brain-detect-the-earths-magnetic-field-113536

# PARAGRAPH 11: Electronic explanation of the DPE 100 processes

Summarizing then and simplifying the concept from an electronic point of view the DPE 100 behaves like a Diode ....

In fact the diode is an active non-linear two-terminal electronic component (bipole), whose ideal function is to allow the flow of electric current in one direction and to block it almost totally in the other (this is not true in the case of Zener diodes, tunnel diode or pin, resonant tunneling diode).

In fact, we can define the DPE 100 as a flow rectifier that conveys only in one sense the energy that flows through it and fluidifies it by transmitting it to the Earth that is its Condenser. The condenser (also known as capacitor) is an electrical component that stores energy in an electrostatic field, which creates a potential difference. In circuit theory, the capacitor is an ideal component that can maintain the charge and energy accumulated to infinity. The energy stored in a capacitor is equal to the work done to charge it.

The difference between the condenser and the Earth is in this detail that science has yet to understand:

The capacitors have a more brutal way of manifesting problems of dissipation that are too high, they "pierce" and short-circuit or explode, in all cases the cycle is not reversible, the damage is permanent. In jargon it is said that they "pierce" when a hole is created in the insulation between two conductive layers. This happens because the temperature is too high to be supported by the insulating material used for the construction of the capacitor. The cause of the explosion is always the same but it concerns the condensers that contain fluids. The insulation is "pierced" and the temperature rises rapidly, overheating the fluid which evaporates, causing the pressure inside the container to increase excessively, causing it to explode.

In the case of the Earth, on the other hand, it receives energy from the sun, which it stores and the excess part, instead of making it explode, is reused to regenerate the Magnetosphere. Once generated, this creates a protective shield proportionate to the force applied by the sun on it. Under this protective shield with magnetic confinement, a specific frequency is created due to the interaction of magnetic fields, the frequency that creates life on this planet 13.4 Hz: Magnetic Life.

As man with his technology changed the direction of the energy of this natural process by distributing it on the surface of this condenser, it began to overheat and no longer had the strength to regenerate the Magnetosphere, which created, as a consequence, circuit overloads due to variable solar activity. These overloads directly create short circuits, which manifest their "sparks" as earthquakes, water bombs, hurricanes, excesses of volcanic activity etc.

To better explain this concept, we think of the flow of electrons through matter, which creates electrical energy through a source to induce the flow of electrons.

Very often that source of electron flow will come from an electric field. A field is a tool we use to model physical interactions that do not involve any observable contact. The field cannot be seen because it does not have a physical appearance, but the effect it has is very real.

Electric fields are an important tool in understanding how electricity starts and continues to flow. The electric fields describe the pulling or pushing force in a space between the charges. The electric fields push the charges away. The electric fields provide us with the pushing force but we must induce the flow of the current. An electric field in a circuit is like an electron pump: a great source of negative charges can push electrons, which pass through the circuit towards the positive lump of charges.

Regardless of the method with which it is created within a body, one notices however a fundamental characteristic of all the experiences concerning the electric charge: the "creation" of an electric charge is always accompanied by the "creation" of an equal charge in form, but of opposite sign. It is therefore evident that the electric charge is not "created": in a body electrons (charge carriers) can be transferred, in one direction or another, but they are always transferred to or from another body; the total number of electrons, and therefore the entity of the electric charge, before and after the electric charging of a body, is the same, but simply accumulated and distributed in different regions or points of the bodies involved in the loading process. This simple observation leads to the general hypothesis of conservation of electric charge, based on which the quantity of negative and positive electric charge in the universe remains constant over time.

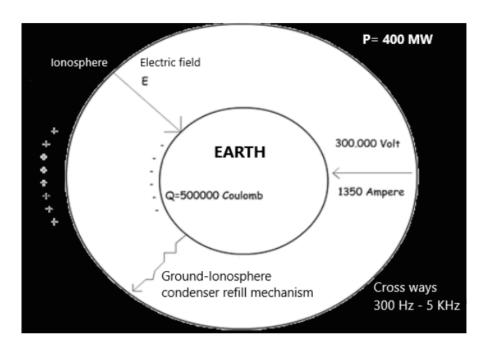
This confirms what happens to the Earth where the energy while remaining the same undergoes variations in its distribution.

Below you will find more information about it.

Resource: http://www.progettomem.it/appr\_campinaturali.php?id=9#top

#### ENERGY BALANCE OF THE TERRA-IONOSPHERE CAVITY

The Earth-ionosphere cavity can be considered as a large electric capacitor whose armatures consist of two concentric spheres, the Earth and the ionosphere (figure 12). The charge of this capacitor remains approximately constant over time. The condition of electrostatic equilibrium of the system is guaranteed by the physical mechanisms that allow the continuous regeneration of the electric field. These mechanisms are responsible for much of the electromagnetic noise that is observed on the Earth's surface and permeates the entire cavity. To maintain this capacitor a power of the order of 400 MW is required.



In good weather conditions the electric field near the Earth's surface has an average value of about 120~V / m which corresponds to a surface charge density of -1.2~pC / m2. By integrating this value over the entire Earth's surface, we obtain the total negative charge of the Earth of 0.5~MC. An equal and opposite charge is obviously present on the edge of the ionosphere. The atmospheric electric field decreases exponentially with altitude, at 10~km the field is reduced to 5~V / m, at 30~km the field is only 0.3~V / m. By integrating the electric field from the Earth's surface to the ionosphere, we obtain the potential difference between the Earth and the ionosphere which is about 300~kV. In the atmosphere flows a vertical current whose density is about 2~pA / m2, integrating this value of the current density over the entire Earth's surface gives a total current of about 1350~A that flows between the ionosphere and the Earth's surface.

This discharge current is due to the presence of electric charges which make the atmosphere slightly conductive. At low altitudes the main source is located on the Earth's surface and within the Earth. The Earth's crust in fact contains radioactive materials, mainly Uranium, Thorium and their decay products. The beta and gamma rays emitted from the soil ionize the air molecules in the first meters above the ground. Radon radioactive gas, one of the decay products of Uranium 238, can diffuse into the atmosphere up to a few tens of meters above the ground before it decays into Polonium by emitting alpha particles. Therefore the Radon is the main cause of ionization of the air up to heights of several tens of meters above the Earth's surface.

Nevertheless, the electrical conductivity of the atmosphere near the ground decreases because the ions tend to deposit on the particles of aerosols and dust.

These particles, due to their lower mobility, contribute into reducing the electrical conductivity of the air. In areas with high concentrations of particulate matter in the air there are low levels of electrical conductivity.

The second ionization source is constituted by cosmic rays whose effectiveness is maximum at 15 km altitude where the maximum ionizing effect is given by the balance between the two parameters: air density and intensity of cosmic rays, one decreases and the other grows with the altitude. X-rays and ultraviolet radiation are the main cause of ionization of the air above 60 km. This depends on the geographical latitude, the seasons, the hours of the day and solar activity.

The electrical conductivity of the air also increases with latitude due to the increase in the intensity of cosmic rays at higher latitudes.

At ground level the current density undergoes variations associated with the meteorological conditions that produce migrations of electric charges and therefore convection currents. To the temporal variations of the terrestrial electric field are associated the displacement currents that represent a not negligible part of the total current in the equilibrium of the global electric circuit. The displacement current has the same diurnal variation as the conduction current.

Near the ground the electric field is subject to great variations mainly related to local weather conditions. In conditions of clear sky and absence of wind, electric field fluctuations are observed linked to phenomena of other nature, whose band extends from fractions of mHz (diurnal variation) up to frequencies of the order of kHz. The electric field measured on the ground often turns out to be much lower than 120 V / m, this effect is also due to natural radioactivity. The Earth's surface has a negative electric charge, the negative electric charges produced by the decay of the radioactive substances of the crust are pushed upwards by the terrestrial electric field, while the positive ones are directed downwards, this gives rise to the formation of an electric field opposite to the terrestrial

one. A layer is formed that extends for a height of several meters above the Earth's surface within which the terrestrial electric field reaches an equilibrium value much lower than expected, depending on the level of production of negative charges of origin crustal, rising from 120 V / m to 5- 30 V / m.

The planetary electrical activity associated with thunderstorms can be considered as the primary source of the energy that powers the Earth-ionosphere electrical system. This system acts as a huge solar energy generator, it converts solar energy into electricity.

The heat of the sun that determines evaporation gives rise to vertical thermal gradients, necessary for the rise of steam. The vertical convection currents generate the electrification of the clouds producing an electric field opposite to the quasi-static one of the Earth-ionosphere condenser, of several orders of magnitude more intense.

The electrical storm discharges charge the Earth's surface restoring the negative charge lost due to the continuous discharge through the atmosphere. The total electric power brought into play in this huge charging and discharging mechanism is about 400 MW. During a thunderstorm electric discharge, a conductive channel is created at High temperature along which currents of the order of kA flow. This conductor consists of gas in the plasma state characterized by an electrical conductivity comparable with that of a metal.

For a few fractions of a second, an antenna is formed which radiates electromagnetic waves whose dominant frequency depends on the length of the conductive channel which is on average about 1000 meters, which corresponds to the fundamental frequency of about 300 kHz. In reality, the operation of this antenna is rather complex, since the channel cannot be assimilated to just the electric dipole, since the current that circulates there generates an intense magnetic field. Furthermore, the ionized channel determines the "freezing" of the Earth's magnetic field, intensifying it due to the swirling motions of the plasma.

When the discharge ceases and the plasma cools, a further emission of ELF-VLF signals is produced due to the local "throttling" of the geomagnetic field along the path of the discharge.

The ionosphere is also charged through other mechanisms, different and much more complex. Above the amount of thunderstorms, in the average atmosphere where the air is extremely rarefied, various electromagnetic phenomena take place, indirectly stimulated by the electrical activity of the clouds, such as red sprites, elves, blue jets, ARB (Atmospheric Radio) pulses Bursts) and gamma-ray pulses of atmospheric origin TGF (Terrestrial Gamma Flashes) which, to varying degrees, contribute to charging the ionosphere electrically. These events, in addition to emitting in their own bands; optics, HF radio and gamma, also have a spectral tail in the ULF, ELF and VLF bands.

An important role is believed to have relativistic electron flows in the production of such manifestations. These flows are produced by the electric field present above the clouds where the air is more rarefied. The electrons are accelerated, along the geomagnetic field strength lines, from the extremely intense electric field present above the electrified clouds, these interact with the neutrals of the atmosphere producing a braking of the accelerated charges (bremsstrahlung) producing TGF gamma pulses (Terrestrial Gamma ray Flashes).

"Red Sprites" are optical emissions in the region of the spectrum corresponding to red, appear between 40 and 90 km altitude and are associated with atmospheric electrical discharges that occur between the top of the clouds and the ionosphere. These discharges have very different characteristics from lightning because the air is extremely rarefied. Gamma emissions are transients whose duration is in the order of milliseconds. Atmospheric radio pulses are characterized by hundreds of times more energy than radio emissions due to electric shocks. They originate between

5 and 20 km of altitude above large thunderstorms. The spectrum of these phenomena extends between 20 MHz and 200 MHz. Their duration is extremely short, it can vary from a few microseconds up to 100 microseconds, so they are difficult to observe. The atmospheric discharges, in particular those of great power (> 1GW), can produce conditions of instability in the ionospheric and magnetospheric plasma inducing a whole series of phenomena, better known with their acronyms:

AKR (Auroral Kilometric Radiation) 20 kHz - 2 MHz

NTC (Non Thermal Continuum) 500 Hz 10 kHz

NCR (Non Continuum Radiation) 200 Hz - 100 kHz

TNCR (Trapped Non Continuum Radiation) 500 Hz 20 kHz EW (Electron Whistlers) 100 Hz - 18 kHz

PW (Proton Whistlers) 0.1 Hz - 20 Hz

VLF HISS 10 Hz - 100 kHz

GM (Geomagnetic Micropulsation) 0.001 Hz - 5 Hz ICW (Ion Cyclotron Whistlers) 10 Hz - 700 Hz ICWA

(Ion Cyclotron Waves) 5 Hz - 100 Hz

MNB (Magnetic Noise Bursts) 10 Hz - 600 Hz

SR (Schumann Resonance) 6 Hz - 50 Hz

ET (Electron Tweeks) 1 - 6 kHz

PT (Proton Tweeks) 1 - 10 Hz

TMR (Terrestrial Miriametric Radiation) 1 - 100 kHz

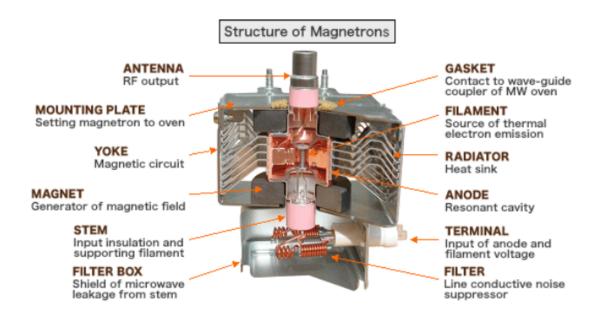
The intensity of the signals associated with these natural manifestations, observed on the Earth's surface, range from 10 fT up to 100 nT. Mostly they are also stimulated and modulated by the particle component of solar radiation (the solar wind). These signals propagate inside the magnetospheric and ionospheric plasma as magnetohydrodynamic waves, which remain confined as such in these regions as they cannot propagate in the vacuum or in the neutral atmosphere. When they reach the edges of the discontinuity, the lower edge of the ionosphere or the outer edge of the magnetosphere, these signals are re-emitted from the surface of discontinuity in the form of electromagnetic waves and therefore can be observed on the ground.

The essential condition for energy to escape from the magnetospheric and ionospheric plasma towards the interplanetary space and towards the Earth is that the magnetohydrodynamic waves in the plasma propagate in the ordinary and extraordinary way above the respective cut-off frequencies. At the local angular frequency of the plasma  $\omega p$  for ordinary modes and frequency for extraordinary ways. ( $\omega g$  is the giromagnetic frequency of the electron and  $\omega p$  is the angular frequency of plasma)

Emissions involve conditions of instability that generate micro-turbulences which remain confined in the plasma regions. The radiation that propagates outside is the result of non-linear plasma interactions. These wave generation processes produce different components, the most important being the fundamental component at the plasma frequency when the frequency of the perturbation due to local instability is much lower than that of plasma,  $\omega$  i <<  $\omega$ p.

# **PARAGRAPH 12:** Physical explanation of the processes and operation of the DPE 100

To understand how photons are collected we have to start from the reverse process and that is how they are produced. We will then analyze the instrument that produces them, the Magnetron.

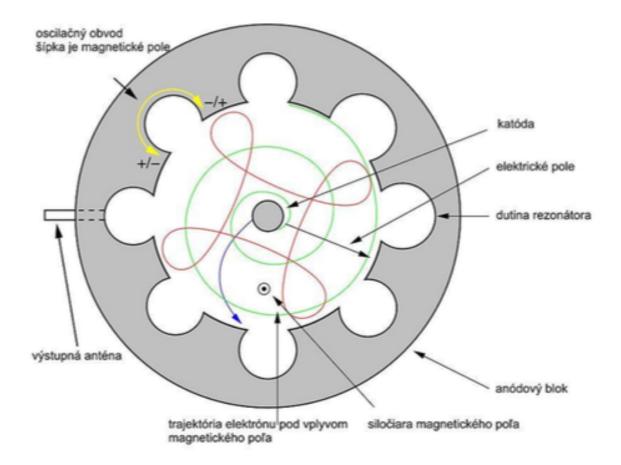


The magnetron consists of a chamber with a circular section surrounded by lobes, in which the vacuum was made, whose structure constitutes the anode, with zero electrical potential. At the center there is a wire kept incandescent, the cathode, and a negative electrical potential, constant or impulsive, very high compared to the anode. In the normal direction to the electric field, consisting of the cathode and the anode, a magnetic field produced by a permanent magnet is maintained. The filament and the cathode consist of a single electrode made of tungsten wire with helical shape, with a number of turns varying between 8 and 12, of a radius approximately equal to the length. The cathode is coated with a material suitable for emitting electrons.

The electrons emitted by the thermionic effect from the filament tend to move towards the walls of the chamber, kept at zero potential, which correspond to the anode, positive with respect to the cathode. The presence of the magnetic field, however, causes a curvature in their trajectory due to the Lorentz force, leading them to follow a cycloid path (ie a point belonging to a circumference that moves along a straight line).

On the perimeter of the chamber are obtained suitably spaced openings communicating with cavities. The electrons, reaching the edge of the cavities, join in beams that oscillate at Radio frequency, depending on the size of the Magnetron, due to the effect of the crossed fields (magnetic field and electric field).

A part of this field is taken from a loop, called pick-up, connected to a waveguide (a metal tube able to convey the microwaves), and from this sent to the user load, whether it is a transmitting antenna, or the microwave oven chamber.



The image above shows the motion that an electron leaving the central wire would have in the absence of a magnetic field (blue) and the one it assumes inside the magnetron (red). The yellow points (visible only by appropriately enlarging the photo) represent the lines of the magnetic field seen in cross section. The drawing loop is represented in brown. The green arrows represent the electric field (short arrow) and the magnetic field (circular arrow) that are established in the RLC circuit equivalent to the cavity.

The size of the cavities determines the resonance frequency and therefore the frequency of the radio waves produced. This frequency is not very precise nor can it be changed. This is not a problem in typical magnetron applications, such as radar and food cooking. Where precision is required other devices are used, for example the Klystron or the TWT (Traveling Wave Tube). The radiated power depends on the applied voltage and the construction characteristics of the pipe.

#### The DPE 100 has the reverse operation principle.

DPE 100 acts on the overall rebalancing capturing the unbalanced energies through spiral copper rings; they are then transferred to the magnesium that converts them, consuming themselves like a sacrificial anode, thanks also to the presence of water (humidity, the true "purifying" element) and to the "electric" contribution of the ground into which a copper disperser / balancer is sunk.

In essence there is an uptake effect by copper and a conversion effect by magnesium: a kind of natural diode able to catalyze "negative" energy. The resulting effect of rebalancing is broad spectrum.

The studies carried out show a decidedly lesser "aggressiveness" of all the energy networks, a decisive if not complete cancellation of all natural and human-induced electromagnetic disturbances, a minor disturbing effect on the part of the radioactive elements, a significant decrease in the disturbance induced by subtle energetic forms, also of organic derivation, a reduction of the unbalancing effect due to waste and / or toxic materials of buildings and the ground.

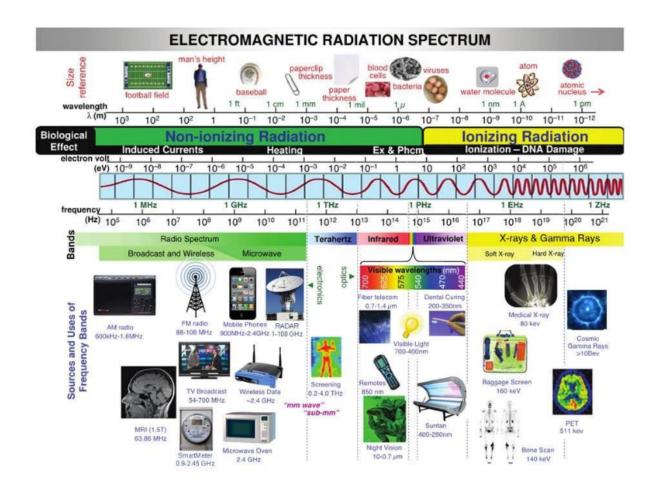
Despite the simplicity of the equipment, it is necessary to know exactly where it is located and know its scope. Therefore those who purchase the equipment will be given the relevant information. In fact the positioning takes into account some important parameters including the interaction of the Earth's magnetic field.

It is necessary to understand that this is an extremely advanced technology although simple that it is not possible to copy and install without knowing exactly the laws that govern the Earth. It must be borne in mind that we are acting on a highly unbalanced planet and an irresponsible purely commercial operation would create further damage to the planet that it could not bear.

What does the 5G network and a non-lethal weapon developed by the military have in common? The Department of Defense has developed a non-lethal crowd control device called the Active Denial System (ADS). The ADS works by firing a high-powered beam of 95 GHz waves at a target - that is, millimeter wavelengths. Anyone caught in the beam will feel like their skin is burning.

The burning sensation stops once the target leaves the beam. This weapon operates on 95GHz waves and 5G will operate on the same frequencies.

Today's cellular and Wi-Fi networks rely on microwaves - a type of electromagnetic radiation utilizing frequencies up to 6 gigahertz (GHz) in order to wirelessly transmit voice or data. However, 5G applications will require unlocking of new spectrum bands in higher frequency ranges above 6 GHz to 100 GHz and beyond, utilizing sub-millimeter and millimeter waves - to allow ultra-high rates of data to be transmitted in the same amount of time as compared with previous deployments of microwave radiation.



Now a US weapons that relies on the capability of this electromagnetic technology to induce unpleasant burning sensations on the skin as a form of crowd control is being rolled out. Millimeter waves are utilized by the U.S. Army in crowd dispersal guns called Active Denial Systems. Dr. Paul Ben-Ishai pointed to research that was commissioned by the U.S. Army to find out why people ran away when the beam touched them.

"If you are unlucky enough to be standing there when it hits you, you will feel like your body is on fire." The U.S. Department of Defense explains how: "The sensation dissipates when the target moves out of the beam. The sensation is intense enough to cause a nearly instantaneous reflex action of the target to flee the beam."

So, what we're talking about with 5G technology is being exposed to the same kind of waves day in and day out, only at a lower power than the ADS.

#### Have safety studies confirmed that such exposure is safe? No.

There's more! Research from a team of Israeli physicists has found that there are new problems to consider with exposure to millimeter waves.

When the wavelength of the energy approaches the dimensions of our biological structures, i.e. our skin and sweat ducts, previous assumptions about the safety of energy radiation are no longer valid.

The research shows that, with millimeter waves, our sweat ducts actually act like little antennas, which means we would absorb more of this energy into our bodies.

Other research has demonstrated that short-term exposure to low-intensity millimeter waves affects human cell membranes and could even result in the proliferation of multi- drug resistant bacteria. Seeing as there has been virtually no research on long-term exposure to millimeter waves, the largescale deployment of 5G technology is a massive experiment.

There's no opting out of 5G—in fact it will become more ubiquitous than wireless technology is right now. As Verizon boasts on its website, the "Internet of Things" will thrive on 5G technology.

The Internet of Things refers to the expanding number of devices, appliances, utilities, and other technologies that collect, transmit, and share data through the internet.

Essentially, many processes that have not previously relied on the internet will start to once 5G roles out: switching lightbulbs on or off with a smartphone app, driverless cars—even "smart cities" that will use wireless networks to collect and analyze data about the environment, traffic, water, transit, lighting, waste management, security, and parking.

"The use of sub-terahertz (Millimeter wave) communications technology (cell phones, Wi-Fi, network transmission antennas) could cause humans to feel physical pain via nociceptors, " stated Dr. Yael Stein, MD, who wrote a letter to the Federal Communications Commission about 5G Spectrum Frontiers.

Devra Lee Davis Founding Director of the Board on Environmental Studies and Toxicology of the U.S. National Research Council, National Academy of Sciences, Founding Director of the Center for Environmental Oncology, University of Pittsburgh Cancer Institute says:

5G has not been tested for safety.

The fact that it can interact with our sweat ducts may have much more profound meaning for our overall health and wellbeing.

The idea that we're going to saturate this country with a network that has never been tested is appalling. The question we have to ask ourselves is it worth endangering the health of our children?

Dr. Davis' group - Environmental Health Trust - explains:

Israeli research studies presented at an international conference reveal that the same electromagnetic frequencies used for crowd control weapons form the foundation of the latest network - branded as 5G - that will tie together more than 50 billion devices as part of the Internet of Things.

Current investigations of wireless frequencies in the millimeter and submillimeter range confirm that these waves interact directly with human skin, specifically the sweat glands. Dr. Ben-Ishai of the Department of Physics, Hebrew University, Israel recently detailed how human sweat ducts act like an array of helical antennas when exposed to these wavelengths.

Scientists cautioned that before rolling out 5G technologies that use these frequencies, research on human health effets needed to be done first to ensure the public and environment are protected.

[Dr. Davis notes] "This work shows that the same parts of the human skin that allow us to sweat also respond to 5G radiation much like an antenna that can receive signals.

We need the potential adverse health impacts of 5G to be seriously evaluated before we blanket our children, ourselves and the environment with this radiation."

Research studies from the Dielectric Spectroscopy Laboratory of the Department of Applied Physics, Hebrew University of Jerusalem, headed by Dr. Yuri Feldman, indicate that millimeter and sub-millimeter waves may lead to preferential layer absorption.

The number of sweat ducts within human skin varies from two million to four million. The researchers pointed to replicated peer research of these biological effects in laboratory research conducted in other countries and considered this mechanism of action well-proven. There are now many thousands of peer-reviewed medical and epidemiological studies that show, illustrate or correlate, adverse biological effects with use of mobile phone technology or WIFI.

Using frequencies even higher than 5 GHz (and up to 100 GHz) will compress the timeframe in which cancers and other biological effects show themselves within society. It is anyone's guess as to what might happen in terms of biological safety yet it is clear to see that the pulsed nature of these high frequency, high signal intensity signals do not harbor good news for humanity, particularly in relation to the functioning of our DNA. Millimeter-wave-emitting devices will saturate our environment, and the fact that we're plunging head-first into deploying this technology without knowing the health consequences is shocking.

#### **RESOURCES:**

https://healthfreedomidaho.org/5g-military-weapon https://ehtrust.org/key-issues/cell-phoneswireless/5g-interneteverything/ 20-quick-facts-what-you-need-to-know-about-5g-wireless-andsmall-cells/

https://www.sott.net/article/345599-5G-networks-will-use-the-samefrequencies- as-pain-inflicting-crowd-control-weapons https://anh-usa.org/what-do-crowd-control-burning-skin-your-street-corner-and-superbugs- have-in-common/

#### PARAGRAPH 13: Microwave RF Interacts with Molecular Structures

The molecules in our bodies vary in size and in total electric charge. These molecular structures of our body can resonate with fluctuating electromagnetic fields. Any charged particle has a resonant frequency. This frequency varies depending on the total mass and charge of the particle.

#### Molecules resonate in fluctuating electromagnetic fields.

The molecules in our bodies vary in size and total electric charge. These molecular structures of our body resonate with fluctuating electromagnetic fields.

#### **Resonance Frequency**

# When you push something at its resonant frequency, a small force can produce a lot of motion.

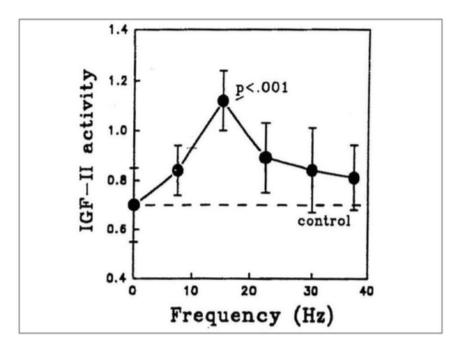
Placing the particle in an electromagnetic field that fluctuates at the resonant frequency will amplify the motion of the particle. This is how a cyclotron works, and the frequency is often referred to as the "Ion Cyclotron Resonance" or ICR frequency. Magnetic fields that fluctuate at the resonant frequency of an ion like calcium, or of a specific enzyme, can have dramatic effects on biochemical processes in the body.

#### **Resonance Effect**

Planaria exposed to a magnetic field fluctuating at the calcium ion's ICR frequency take far longer (48 hours) to regenerate than those that are not exposed.

Liboff A. Weak low-frequency electromagnetic fields are biologically interactive. In: Giuliani L, Soffritti M, eds. Non-Thermal Effects and Mechanisms of Interaction Between Electromagnetic Fields and Living Matter -- An ICEMS Monograph. Fidenza, Italy: Mattioli, (2010): 51-61. http://www.ramazzini.it/ricerca/publications.asp

# "Frequency Window"



Some effects of fluctuating EMF occur at specific frequencies, called "frequency windows". The peak in IGF-II expression for human osteosarcoma bone cells exposed to combined magnetic fields occurs when the field is tuned to the calcium ion's ICR frequency Liboff A.

Weak low-frequency electromagnetic fields are biologically interactive. In: Giuliani L, Soffritti M, eds. Non-Thermal Effects and Mechanisms of Interaction Between Electromagnetic Fields and Living Matter -- An ICEMS Monograph. Fidenza, Italy: Mattioli, (2010): 51-61. http://www.ramazzini.it/ricerca/publications.asp

#### "Power Window"

At a given frequency, some power levels may have a different effect than others. This is a "power window". In this illustration, the odds ratio for childhood onset of Acute Lymphoblastic Leukemia is significantly higher if they are exposed to 60 cycle magnetic fields at a magnitude of 0.4 to 0.499 microtesla.

Lower and higher field magnitudes do not show the same effect.

Liboff A. Weak low-frequency electromagnetic fields are biologically interactive. In: Giuliani L, Soffritti M, eds. Non-Thermal Effects and Mechanisms of Interaction Between Electromagnetic Fields and Living Matter -- An ICEMS Monograph. Fidenza, Italy: Mattioli, (2010): 51-61. http://www.ramazzini.it/ricerca/publications.asp

Fig. 1. Odds ratios for childhood ALL, determined by Linet et al 6, as a function of residential magnetic field. The large ratios seen for fields between .4 and . 499!

Mice with Ascites Ehrlich carcinoma 33, exposed to a fluctuating EM field tuned to the ICR frequency for aspartic acid and glutamic acid ions. Survival varies with the AMPLITUDE (magnitude) of the field.

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Liboff A. Weak low-frequency electromagnetic fields are biologically interactive. In: Giuliani L, Soffritti M, eds. Non-Thermal Effects and Mechanisms of Interaction Between Electromagnetic Fields and Living Matter -- An ICEMS Monograph. Fidenza, Italy: Mattioli, (2010): 51-61. <a href="http://www.ramazzini.it/ricerca/publications.asp">http://www.ramazzini.it/ricerca/publications.asp</a>

Fig. 5. Survival curve for mice infected with Ascites Ehrlich carcinoma33, under ICR conditions corresponding to mean tuning (4.4 Hz) for aspartic acid and glutamic acid ions. In contrast to Fig. 2 where the frequency is varied, a resonance (or window) peak is observed as the AC magnetic field intensity is varied.

There are thousands of enzymes and other molecules in the human body. Each has its own mass, charge, and resonant frequency. This means that different electromagnetic frequencies will resonate with different molecules.

Which means that the biological effects of EMF on molecular physiology are probably much more complex than is generally assumed to be the case. Ionizing radiation from the high energy end of the electromagnetic spectrum can directly break DNA molecular bonds, causing mutations. But photons of microwave RF do not have enough energy to directly break covalent molecular bonds. Industry advocates often make the statement that since RF cannot break molecular bonds, there is no way that it can cause cancer.

#### Such statements sound like good physics. But they reflect a poor understanding of biology.

Tobacco can cause cancer. Genital warts can cause cancer. Asbestos can cause cancer. There are many ways to cause cancer besides ionizing radiation.

#### **Free Radicals**

Free radicals are oxidizing agents.

They take electrons from other atoms or molecules, which can break molecular bonds.

# Life cycle of a free radical

Precursor molecule (AB) splits to form two free radicals. Free radicals then can produce chain reactions, causing oxidative damage. Peroxizomes (yellow) in a cell – packages of free radicals stored in cells. Cells are making free radicals all the time.

Our bodies release them in inflammation to combat bacteria, remove diseased tissue, etc.

The free radicals release by the inflammatory process can break covalent bonds and fragment macomolecules.

This recently published article reviews published evidence that EMF can produce physiologic effects by altering the function of voltage gated calcium channels in cell walls.

Pall ML. Electromagnetic fields act via activation of voltage-gated calcium channels to produce beneficial or adverse effects. *J Cell Mol Med* 

Ref. no.	EMF type	Calcium channel	Cell type or organism	Response measured
2	Pulsed magnetic fields	L-type	Human lymphocytes	Cell proliferation; cytokine production
3	Static magnetic field (0.1 T)	L-type	Human polymorphonuclear leucocytes	Cell migration; degranulation
5	ELF	L-type	Rat chromaffin cells	Differentiation; catecholamine release
6	Electric field	L-type	Rat and mouse bone cells	Increased Ca <sup>2+</sup> , phospholipase A2, PGE2
7	50 Hz	L-type	Mytilus (mussel) immunocytes	Reduced shape change, cytotoxicity
8	50 Hz	L-type	AtT20 D16V, mouse pituitary corticotrope-derived	Ca <sup>2+</sup> increase; cell morphology, premature differentiation
9	50 Hz	L-type	Neural stem/progenitor cells	In vitro differentiation, neurogenesis
10	Static magnetic field	L-type	Rat	Reduction in oedema formation
11	NMR	L-type	Tumour cells	Synergistic effect of EMF on anti-tumous drug toxicity
12	Static magnetic field	L-type	Myelomonocytic U937 cells	Ca <sup>2+</sup> influx into cells and anti-apoptotic effects
13	60 Hz	L-type	Mouse	Hyperalgesic response to exposure
14	Single nanosecond electric pulse	L-type	Bovine chromaffin cells	Very rapid increase in intracellular Ca <sup>2+</sup>

These are some of the 23 published studies documenting that EMF can increase flow through these calcium channels, producing biological effects. In all these studies, the effects of EMF on increased cellular calcium levels could be blocked by calcium channel blocking drugs. Pall ML. Electromagnetic fields act via activation of voltage-gated calcium channels to produce beneficial or adverse effects. *J Cell Mol Med* (2013);

15	Biphasic electric current	L-type	Human mesenchymal stromal cells	Osteoblast differentiation and cytokine production
16	DC & AC magnetic fields	L-type	b-cells of pancreas, patch clamped	Ca <sup>2+</sup> flux into cells
17	50 Hz	L-type	Rat pituitary cells	Ca <sup>2+</sup> flux into cells
18	50 Hz	L-type, N-type	Human neuroblastoma IMR32 and rat pituitary GH3 cells	Anti-apoptotic activity
19	Nanosecond pulse	L-type, N-type, P/Q-type	Bovine chromaffin cells	Ca <sup>2+</sup> dynamics of cells
20	50 Hz	Not determined	Rat dorsal root ganglion cells	Firing frequency of cells
21	700-1100 MHz	N-type	Stem cell-derived neuronal cells	Ca2+ dynamics of cells
22	Very weak electrical fields	T-type	Sharks	Detection of very weak magnetic fields in the ocean
23	Short electric pulses	L-type	Human eye	Effect on electro-oculogram
24	Weak static magnetic field	L-type	Rabbit	Baroreflex sensitivity
25	Weak electric fields	T-type	Neutrophils	Electrical and ion dynamics
26	Static electric fields, 'capacitive'	L-type	Bovine articular chondrocytes	Agrican & type II collagen expression; calcineurin and other Ca <sup>2+</sup> /calmodulin responses

In all these studies, the effects of EMF on increased cellular calcium levels could be blocked by calcium channel blocking drugs. Pall ML. Electromagnetic fields act via activation of voltage-gated calcium channels to produce beneficial or adverse effects. *J Cell Mol Med*(2013);

#### **EMF Activation of VGCCs Increases Free Radical Production**

Normally, Calcium concentrations are much higher outside of cells than inside them. Influxes of calcium into cells act as chemical signals to alter cellular physiologic activity.

Here we have a diagram of a cell, with high levels of calcium outside, and lower levels of calcium inside. The green arrow is a voltage-gated calcium channel, that can open to allow more calcium to enter the cell. Inside the cell, we can see an enzyme (nitric oxide synthetase). As discussed by Pall ML. Electromagnetic fields act via activation of voltage-gated calcium channels to produce beneficial or adverse effects. *J Cell Mol Med* (2013);

# **EMF Activation of VGCCs Increases Free Radical Production**

An electromagnetic field arrives at the cell wall. The electromagnetic field stimulates opening of voltage-gated calcium channels (VGCCs) in the cell membrane. This increases Ca++ entry into the cell.

#### **EMF Activation of VGCCs Increases Free Radical Production**

Increased intracellular calcium levels stimulate the activity of nitric oxide synthetase, Which leads to increased production of nitric oxide in the cell. Increase nitric oxide leads to increase in peroxynitrite, a potent non-radical oxidant. Peroxynitrite produces free radicals, including hydroxyl radical and NO. This increase in free radicals then leads to inflammation, oxidant stress, and damage to cell structures, including DNA.

The EMF doesn't directly damage the cell. It "just" deranges cellular metabolism. The free radicals that are produced by this change in metabolism are what causes the damage.

The mechanisms of **how** RF increases free radical activity and oxidative stress are still being explored. But the fact that RF **does do this** has been CLEARLY ESTABLISHED by many research studies. This increase in free radical levels can and does lead to DNA damage.

Comments on Notice of Inquiry, ET Docket No. 13-84

#### Comet assay: Unexposed control

The Comet assay is one way to measure DNA damage. This is a study of DNA extracted from normal rat brain cells (unexposed controls). Electrophoresis: DNA molecules of given mass and charge placed in a diffusion medium. Preparation placed in a static electric field. DNA molecules migrate towards a charged pole. DNA molecules that are the same size, so they migrate at the same rate, will stay in a clump. Kesari KK, Behari J, Kumar S. Mutagenic response of 2.45 GHz radiation exposure on rat brain. *Int J Radiat Biol* (2010a); 86(4):334-343.

### RF exposure: 2.45 GHz @ 0.34 mW/cm2, 2 hours per day x 35 days

DNA from brain cells of exposed rats. Here, some of the DNA molecules are broken. The broken parts vary in mass and total charge, so they migrate through the gel at different rates This leaves a "comet tail" of lighter fragments behind the main body of intact DNA. The length of the tail can be measured. This is a **very sensitive** assay for DNA damage.

Kesari KK, Behari J, Kumar S. Mutagenic response of 2.45 GHz radiation exposure on rat brain. *Int J Radiat Biol* (2010a); 86(4):334-343.

# RF exposure: 2.45 GHz @ 0.34 mW/cm2, 2 hours per day x 35 days

Comet Assay: **Measure of DNA fragmentation** in rat brains, produced by prolonged exposure to microwave RF. In this study, exposure was 2 h a day for 35 days an exposure level of **one third of the FCC exposure limit.** 

FCC exposure limit = 1 mW/cm2

Kesari KK, Behari J, Kumar S. Mutagenic response of 2.45 GHz radiation exposure on rat brain. *Int J Radiat Biol* (2010a); 86(4):334-343.

# RF exposure: 2.45 GHz @ 0.34 mW/cm2, 2 hours per day x 35 days

**Depletion of antioxidants** in RF-exposed rat brains. This consumption of anti-oxidants is **evidence of increased oxidant stress**, due to excess free radical production.

Kesari KK, Behari J, Kumar S. Mutagenic response of 2.45 GHz radiation exposure on rat brain. *Int J Radiat Biol* (2010a); 86(4):334-343.

#### **Abstract**

Purpose: To investigate the effect of 2.45 GHz microwave radiation on rat brain of male wistar strain. Material and methods: Male rats of wistar strain (35 days old with 130 + 10 g body weight) were selected for this study. Animals were divided into two groups: Sham exposed and experimental. Animals were exposed for 2 h a day for 35 days to 2.45 GHz frequency at 0.34 mW/cm2 power density. The whole body specific absorption rate (SAR) was estimated to be 0.11 W/Kg.

Exposure took place in a ventilated Plexiglas cage and kept in anechoic chamber in a far field configuration from the horn antenna.

After the completion of exposure period, rats were sacrificed and the whole brain tissue was dissected and used for study of double strand DNA (Deoxyribonucleic acid) breaks by micro gel electrophoresis and the statistical analysis was carried out using comet assay (IV-2 version software). Thereafter, antioxidant enzymes and histone kinase estimation was also performed.

Results: A significant increase was observed in comet head (P50.002), tail length (P50.0002) and in tail movement (P 5 0.0001) in exposed brain cells. An analysis of antioxidant enzymes glutathione peroxidase (P 5 0.005), and superoxide dismutase (P50.006) showed a decrease while an increase in catalase (P50.006) was observed. A significant decrease (P 5 0.023) in histone kinase was also recorded in the exposed group as compared to the control (sham-exposed) ones. One- way analysis of variance (ANOVA) method was adopted for statistical analysis.

Conclusion: The study concludes that the chronic exposure to these radiations may cause significant damage to brain, which may be an indication of possible tumour promotion (Behari and Paulraj 2007).

# RF exposure: 2.45 GHz @ 0.21 mW/cm2, 2 hours per day x 45 days

**Suppression of melatonin secretion** by 2.45 GHz RF: Bad news, since melatonin is also a potent antioxidant. Kesari KK, Kumar S, Behari J. Pathophysiology of microwave radiation: effect on rat brain. *Appl Biochem Biotechnol* (2012); 166(2):379-388.

#### Evidence of DNA damage by microwave RF.

Another study, using Human fibroblasts. 1950 MHz, 5 minutes on/10 minutes off. Total exposure for 4, 8, or 24 hours. DNA fragmentation measured by Comet Assay.

Intermittent RF-EMF exposure (1950 MHz, 5 minutes on/10 minutes off, 1 and 2 W/kg, 4, 8 and 24 hours) increases the DNA strand break frequency in human fibroblasts dependent on the duration of exposure as measured with the alkaline and neutral Comet assay (H.-W. Rüdiger et al., Division of Occupational Medicine, University of Vienna, Austria). Adlkofer F. Risk Evaluation of Potential Environmental Hazards from Low Energy Electromagnetic Field Exposure Using Sensitive In Vitro Methods. *Bioelectromagnetics* (2006); 331-354.

# **DNA damage blocked by anti-oxidants**

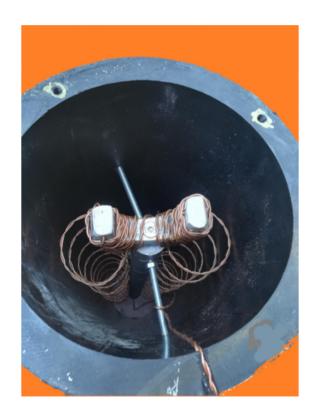
A cell study, with human fibroblasts, exposed to 1950 MHz RF, 5 minutes on/10 minutes off. (right hand columns => DNA damage blocked by anti-oxidant effect of vitamin C (ascorbic acid). The research group of Prof. Tauber, Berlin, investigated the effect of RF- EMF on HL-60 cells, i.e. a human promyelocytic cell line. After continuous exposure to RF-EMF of 1800 MHz and a SAR value of 1.3 W/kg they observed a highly significant increase in the number of single and double DNA strand breaks as measured by the alkaline Comet assay and of micronuclei as measured with the micronucleus test, thus fully confirming the findings obtained in the Vienna laboratory.

Additionally, the generation of DNA strand breaks and micronucleid can be prevented, when the radical scavenger ascorbic acid is added to the culture medium before exposure. Adlkofer F. Risk Evaluation of Potential Environmental Hazards from Low Energy Electromagnetic Field Exposure Using Sensitive In Vitro Methods. *Bioelectromagnetics* (2006); 331-354.

# PARAGRAPH 14: The actual solution - DPE 100





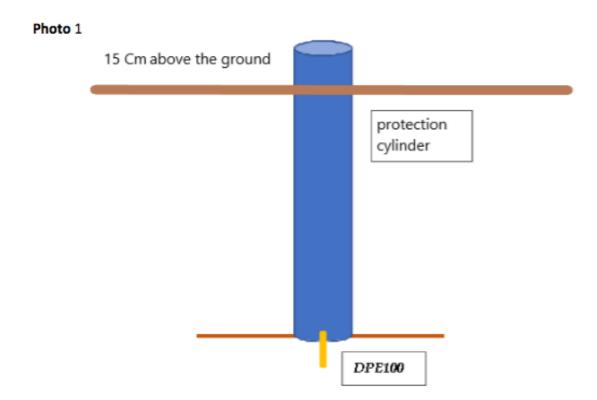


# PARAGRAPH 15: DPE installation

#### Placement

The single DPE 100 element, approximately 1.0 m long and 15 cm in diameter, should be positioned almost completely underground. Only the head of the device is left above the ground of about 15 cm, equipped with a cap through which it will be possible, when necessary, to replace the central bar (Photo 1). It can have a variable duration from area to area; a priori a minimum duration of 6 years should be assumed, a period after which the bar may need to be replaced.

The sizing of the DPE 100 system must necessarily be recommended by specialized technicians able to identify all the elements of local influence that can affect the sizing itself. A particular aspect to consider is the possibility of mutation of the site's energy scenario, also linked to existing climate changes. To increase the effectiveness of the DPE operation it is advisable that the soil is not excessively dry so in summer it is advisable to pour about 5 liters of water into the DPE. You can do this 2 or 3 times throughout the summer. Positioning must take place in a northerly direction of the Earth's magnetic pole.







# Principle of operation:

This device works on the principles of quantum physics. It acts on the overall rebalancing, capturing unbalanced energies through the particular structural design.

They are then transferred to the Earth from the central body, in a special light alloy, which converts them, consuming themselves like a sacrificial anode, thanks also to the presence of water (humidity, the true "purifying" element) and to the "electric" contribution of the soil in which is sunk a copper disperser / balancer together with noble metals.

In substance the DPE 100, in its constructive specificity has an effect of collection by the copper parts before the human body can absorb them and through a conversion effect by the central metal body in light alloy: a kind of natural diode able to catalyze, straighten and restore to the Earth this energy "for us not positive". The resulting effect of rebalancing is broad spectrum.

#### Test:

With subsequent tests we ascertained that the range of action of the DPE 100 is 100 m, therefore it covers an area of 31.400 Mq with an extension therefore sufficient for 3 or 4 families. In the case of the Shield model, it covers an area of 314 Kmq and reaches a height of 250 km!

However, the inventor recommends installing more DPE 100 family units for at least two main reasons:

- 1) electromagnetic pollution has varying intensity during the days and with the passage of time it will increase in intensity.
- 2) The Earth's magnetic field is thinning for a number of physical reasons.

#### Technical Addendum DPE 100:

The purpose of this addendum is to give a more detailed and technical description of the capacity of transformation and neutralization on the set of various types of stray energies carried out by DPE 100 in its area of action.

The term "wandering energies" means the whole set of geopathies, the residual solar energy not absorbed by the plants and the energies generated by modern technologies (cellular network, including 5G, data transmission networks such as internet, radar, various transmissions, etc.

It is now universally and scientifically recognized that these wandering energies influence the life and physical and psychological health of people in a consistent and strongly conditioning way, manifesting themselves in various symptoms, such as migraines, muscle and joint pains, quality of sleep and even in terms of concentration and mood in general.

The result of periodic and cyclical measurements carried out in the area of influence and operation of DPE 100 on diversified flows of the sum of all types of stray energies, shows how on the basis of careful and repeated calculations and measurements per square meter the most consistent energy charges they come from top to bottom: they are forms of energy generated by the sun and the cosmos. To these must be added all the consequences generated by modern technologies: cellular telephony, internet, radar, transmissions, etc.

The moment the DPE 100 was activated, the following change in measurement values occurred: Starting measurement before DPE 100: 2500 environmental microvolts

Measurement after DPE 100: 37 environmental microvolts

#### So with a real and effective reduction of 98.52%!

In the past the Earth had an adequate number of trees capable of easily disposing of all the penetrating solar radiation in the atmosphere thanks to chlorophyll photosynthesis. This ensured that there were no substantial residues of stray radiation in the atmosphere. Today this balance is missing because the number of trees present compared to the solar and wandering energies to be disposed of is no longer sufficient.

In this way, these excess energies wander among the earthly poles, contributing in a decisive and consistent way to global warming.

DPE 100 works on the principle of a lightning rod, being connected to the Earth (neutral), doing nothing but attracting the excesses of energy in the upper atmospheric layers to convey them towards the lower ones. Thanks to its special conformation, DPE 100 succeeds in disposing of photons of solar radiation at a very high speed (about 297,200 km/sec, close to the speed of light), neutralizing them towards the center of the Earth. In this way the function of the chlorophyll synthesis of trees is simulated. This action of DPE 100 takes place in a cyclical manner thus providing a constant improvement in the area of competence.

#### THE NUMBERS:

The area of operational influence of DPE 100 in the Base version is that of a circle of 100mt of radius (ie an area of approximately 31.400 square meters). The unloading optimization of the DPE 100 takes place simultaneously and constantly throughout the area of competence and action!

Every 1.25 square meters there are different types of geopathy, which can be:

- a- Static or irrelevant
- b- Generic slight disturbance
- c- Cause of a bad quality of sleep and concentration
- d- Acute, able to create disorders of the psyche, of metabolism, to the point of generating real pathologies

We had started with a much less powerful DPE 100 model but the acceleration of events led us to a significant change in our programs, so we came out with a much more enhanced version. However, we are working to make all the information as fluid and updated as possible.

Authors: Ph. D. Giovanni Lapadula & Liberato Cozzolino

 $\label{lem:modification-Adjustments} \mbox{ and Relecture}: \mbox{M. LEBLAN}$ 

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