ELECTRO-MAGNETIC PROPAGANDA

electro-magnetic spectrum

Rythmic frequency | frequency (cycles per second) | wavelength (meters)

Solar cycle 11 years

Revolution of the Earth around the Sun 1 year

Lunar cycle 28 days

1 day

1 hour

lowest note on a piano 27.5 Hz

Dr.Robert Becker, has written that the total density of radio frequency waves penetrating every corner of the planet (and every person on it) is now 100 to 200 million times the level reaching us naturally from the Sun (Becker, R.O. & Selden, G., The Body Electric. Wm. Morrow (1985) p.275).

NON-IONIZING RADIATIONS

THERMAL RADIATIONS

RADIO FREQUENCIES

ULF 1.5 Hz

ELF 30 Hz

SLF 300 Hz

ELECTRIC NETWORK 50 Hz /

ULF 3 kHz

VOICE FREQUENCY

VLF 30 kHz

SUBMARINE COMMUNICATIONS 50 kHz

LF 300 kHz

MF 3 MHz

AM RADIO

Short wave radio 5.9 MHz - 26.1 MHz

HF 30MHz

CB RADIO

VHF 300 MHz

FM RADIO

WIRELESS MEDICAL TELEMETRY 400 MHz, 600 MHz

UHF 3GHz

TELEVISION

GPS 1.2 GHz

MICROWAVES

SHF 30 GHz

MOBILE PHONE

RADAR

KLYSTRON

MAGNETRON

EHF 300 GHz

Police speed radar 20 GHz

INFRARED

385 000 GHz

THERMAL SIGHTS

GUIDED MISSILES

LASERS

Wavelength 8000 angstroms

Red Wavelength 6870 angstroms (or 687 nanometers)

Orange Wavelength 6325 angstroms

Yellow Wavelength 5875 angstroms

Green Wavelength 5132 angstroms

Blue Wavelength 4560 angstroms

Indigo Wavelength 4311 angstroms

Violet Wavelength 4099 angstroms

Wavelength 3000 angstroms

ULTRA-VIOLET

5 PHz

30 PHz

partie du spectre visible par l'oeil humain

. Light (which we can see) and infra-red (which is' felt as warmth) are the only parts of the electromagnetic spectrum for which we have specific sense organs.

The human eye is able to perceive different wavelengths which are interpreted by the human brain as colors. Though humans cannot see infrared (IR), we do perceive it by receptors in the skin as heat. Some animals, such as bees, can see ultraviolet (UV) radiation while others, such as pit viper snakes, can see IR using pits in their heads.

X-RAYS

60 EHz

10^{-9} m

IONIZING RADIATIONS

GAMMA RAYS

SYNCHROTRON

100 femtometers

10 femtometers

mass of electron

mass of proton

1 femtometer or 100 attometers

10 attometers

1 attometer 10^{-18} m

atomic number | symbol | name

Solid

Liquid

Gaz

synthetic element

dia-magnetic

para-magnetic

alkali metals

alkaline earth metals

transitional metals

other metals

non metals

noble gases

ferro-magnetic

electric conductivity

synthetic element with a 2ms semi-life

synthetic element with a 40 seconds semi-life

Limits of natural elements

bismuth comes from the destintegration of uranium. TAll elements beyond Bismuth are naturally radioactives

Actinides

Lead is a natural product of the desintegration of uranium

Lanthanides

electro-magnetic effects

COSMIC SCALE

1770 1780 1790 1800 1810 1820 1830 1840 1850 1860 1870 1880 1890 1900 1910 1920 1930 1940 1950 1960 1970 1980 1990 2000 2010 2020 2030

Ionizing radiations

Light

Micro-waves

Radio waves

VLF

ELF

During the previous solar maximum in 1989, a very powerful X-ray flare on March 5th led to the Sun emitting a stream of high-energy protons, which flowed to the Earth continuously until March 13th.

From May 10th through 13th of 2000, the Solar Wind abruptly shut off, causing NASA to announce that this was, quote, "the most drastic and longest-lasting decrease" ever observed. This created huge auroras on Earth and caused the magnetic field to swell to between 500 and 600 percent of its normal size. (http://science.nasa.gov/newhome/headlines/as t13dec99_1.htm)

the Sun contains fully 99.86% of the mass in the Solar System.. It wields the strongest thermal, gravitational and electromagnetic influence. Mike Lockwood, Richard Stamper and Matthew Wild at the Rutherford Appleton Laboratory in the UK, have discovered that in the last century, the overall strength of the Sun's magnetic field has more than doubled, becoming 230 percent stronger than it was in 1901. (Nature, 1999, 399 437).

The universe as an electrified fabric

Solar dynamo

Cathode

Anode

Electrical sun hypothesis
It is not coincidence that the photosphere [of the sun] has the appearance, the temperature and spectrum of an electric arc; it has arc characteristics because it is an electric arc, or a large number of arcs in parallel. (C. E. R. Bruce, A New Approach in Astrophysics and Cosmogony, Unwin Brothers Limited, 1944).

Electrical sun hypothesis
Sir Joseph Larmor in England first proposed in 1919 that dynamos consisting entirely of fluids might explain the creation of sunspot magnetic fields. His idea was that as solar plasma flowed through magnetic fields, dynamo effects produced the very same currents which also created those magnetic fields.

Planets and biological systems

Sunspots (1), the solar wind (2), the regular movement of the earth through space (3), and even supernovae (4) appear to be able to influence biological systems.
(1) Dean G. (1977). Recent Advances In Natal Astrology. A Critical Review 1900-1976. Analogic, Subiaco 6008, Western Australia, 215
(2) Randall W. (1990). The solar wind and human birth rate: a possible relationship due to magnetic disturbances. International Journal of Biometeorology, 34 (1), 42
Piccardi G. (1962). The Chemical Basis of Medical Climatology. Thomas, Springfield Illinois, 146
Terry K.D. and Tucker W.H. (1968). Biologic effects of supernovae. Science, 159 (813), 421

Turbulence which emerge on the surface of the Sun as spots, being closely related to the period of Jupiter. The period of revolution of Jupiter is 11.861773 Earth years.The average cycle of sunspots is given as 11.120412 years. The ratio of the period of Jupiter's revolution around the Sun to the length of cycle of sunspot activity : 11.861773 / 11.120412 = 1.066667.

If there is a significant effect of certain planets on EM fields, of a type known to influence the pineal gland, it's just possible the positions of certain planets at the time of our birth could also, to a greater or lesser degree through the perinatal actions of melatonin, influence our development and behaviour from the time of our birth as physician-astrologers have claimed for centuries.

It has even been credibly suggested that there could be an association between wars, increased solar-geomagnetic activity and aggression : "Symmetrical lag/lead analysis (-6 years to +6 years), involving annual global geomagnetic activity, inferences of solar activity, and the release of the total, global seismic energy indicated that the numbers of armed conflicts (wars) for the first half of the twentieth century were moderately associated (rs approximately .50; 25% of the variance) only with the global geomagnetic activity of the same year" (Persinger M.A. (1999). Wars and increased solar-geomagnetic activity: aggression or change in intraspecies dominance. Perceptual and Motor Skills, 88(3 pt2), 351)

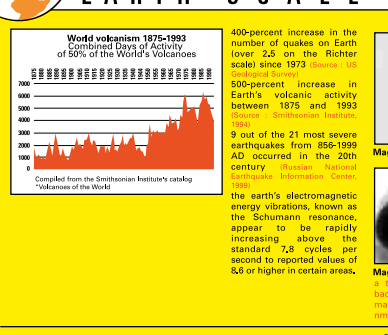
Cosmic Ray

X Ray

Light

Radio waves

EARTH SCALE

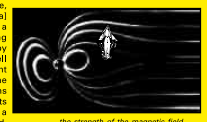


400-percent increase in the number of quakes on Earth over 2.8 on the Richter scale) since 1973 (Source : US Geological Survey)
500-percent increase in Earth's volcanic activity between 1875 and 1993 (Source : Smithsonian Institute, 1994).
9 out of the 21 most severe earthquakes from 856-1999 AD occurred in the 20th century (Russian National Earthquake Information Center, 1995)
the earth's electromagnetic energy vibrations, known as the Schumann resonance, appear to be rapidly increasing above the standard 7,8 cycles per second to reported values of 8,6 or higher in certain areas.

Magnetosphere

Magnetotactic bacteria
a typical magnetotactic bacterium. The bacterium is 3 µm in size, with typical magnetite crystals on the order of 30-50 nm in length.

"When observed under the microscope, living cells [of magnetotactic bacteria] swim in straight lines parallel to a magnetic field, and their swimming directions can be changed instantly by using a small hand magnet. Each cell contains between 0,5 and 2% byweight magnetite or greigite (Fe3S4), and the arrangement of crystals into chains provides each cell with magnetic moments large enough to align the organism like a compass needle in the geomagnetic field. In the Northern hemisphere, the magnetotactic bacteria swim to the North, or toward the South pole of a magnet, whereas in the Southern hemisphere they do precisely the opposite (...) On the geomagnetic equator (or in environments where the magnetic field is parallel to the mud-water interface), the population density of magnetotactic bacteria is reduced by several orders of magnitude"
(J. L. Kirschvink, A. Kobayashi-Kirschvink, Magnetoreception and Electromagnetic Field Effects : Sensory Perception of the Geomagnetic Field in Animals and Humans. In M. Blank, Ed. Electromagnetic Fields, American Chemical Society, 1995)

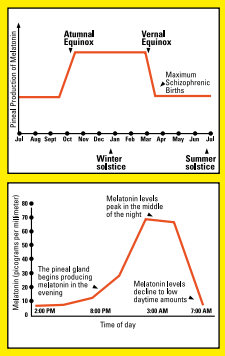


the strength of the magnetic field is approximately 38% lower than it was 2,000 years ago, and it is now measured to be decreasing at an average rate of about 6% per 100 years, according to Swedish scientist N.A. Morner in 1988

The magnetic field of the Earth in Northern Europe is around half a gauss (0.5G) or 0.00005 Tesla. The magnetic field produced by the human brain is around 0.0000000000000001 Tesla. When an electrical engineer talks about weak magnetic fields, he is probably referring to something less than 0,001 Tesla, a full 100 billion times stronger than that of the brain.

Out-of-body experiences and geomagnetic activity
The ratings of subjective experiences of the self "leaving" or of being detached from the body were obtained (over a 3-yr. period) for a total of 128 men and women who had been exposed only once to an experimental setting which enhances the awareness of cognitive processes. As hypothesized, the individuals who exhibited the greatest proportion of complex partial epileptic-like signs also reported the most intense experiences of detachment from the body; however, these occurred primarily when the geomagnetic activity on the day of the experiment exceeded about 15 nT but was less than about 45 nT. (source : Out-of-body-like experiences are more probable in people with elevated complex partial epileptic-like signs during periods of enhanced geomagnetic activity: a nonlinear effect. by Michael Persinger, Behavioral Neuroscience Laboratory, Laurentian University, Percept Mot Skills, 1995 Apr;80(2):659-9)

Light and melatonin



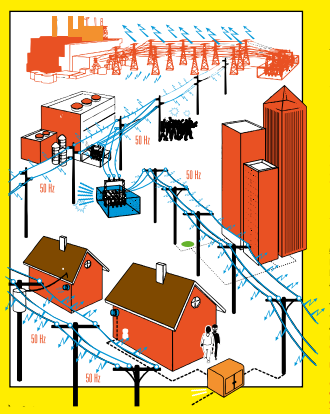
Cardinali showed that red light produced minimal inhibition of melatonin synthesis, whereas green light caused maximal stimulation (1). In addition, illumination with a light intensity of 0.5 microwatt/cm2 for forty-eight hours produced a fifty per cent decrease in melatonin synthesis in the rat pineal gland. By way of comparison, sunlight, which strongly inhibits melatonin production, has an intensity of around 50,000 microwatt/cm2, whereas full moonlight has an intensity of around 0.3 microwatt/cm2. (2). In addition to light, other electromagnetic (EM) radiations influence melatonin production, and EM fields of varying strengths and types – including earth strength magnetic fields – have been shown to influence melatonin production to the same degree as the exposure to light does: both in vivo, and in vitro and in a number of species including humans (3).
(1) Cardinali D.P., Larin F. and Wurtman R.J. (1973). Control of the rat pineal by light spectra. Proceedings of the National Academy of Science USA, 69, 2003
(2) Allschule M.D. (1957). Some effects of aqueous extracts of acetone-dried beef pineal substance in chronic schizophrenia. New England Journal of Medicine, 257, 919.
(3) Richardson B.A., Yaga K., Reiter R.J., and Morton D.J. (1982). Pulsed static magnetic field effects on in-vitro pineal indoleamine metabolism. Biochimica et Biophysica Acta, 1137(1), 59.

There's a tendency for people who go on to develop schizophrenia, to be born at an increased incidence around the time of the spring (vernal) equinox in both the northern and southern hemispheres (1). This pattern of birth demonstrates a parallel with the idealised annual pattern of mammalian pineal gland activity, which, given its sensitivity to light and other EM radiations, is associated with photoperiod in a similar, seasonally related, manner.
Both length of day and geomagnetic field fluctuate by season and both are associated with varying melatonin excretion, which peaks in June and November when low values of the geomagnetic field are recorded (2). In addition, naturally occurring EMFs that vary seasonally have also been associated with affective disorder (3), and at the equator, where there is no seasonal photoperiod change, the seasonal effect on schizophrenic births reportedly disappears (4).
(1) Torrey E.F. (1975). Schizophrenia and season of birth. American Journal of Psychiatry, 132(1), 87
(2) Bergiannaki Joffi, Papandreopoulos V., and Stefanis C.N. (1996). Seasonal pattern of melatonin excretion in humans: relationship to day/night variation rate and geomagnetic field fluctuations. Experientia, 52(3), 253
3) Sandyk R., Anninos P.A. and Tsagas N. (1991). Magnetic fields and seasonality of affective illness: implications for therapy. International Journal of Neuroscience, 58 (34), 261
(4)Parker G., Mahendran R., Koh E.S. and Machin D. (2000). Season of birth in schizophrenia: no latitude at the equator. British Journal of Psychiatry, 176, 68

The 10 Hz frequency
Fluctuations in the large currents flowing in the Van Allen belts generated by the time-varying magnetic field of the earth and the solar wind produced extremely high magnitude currents in the equatorial ionosphere. These currents, coupling with the conducting core of the earth, which has a circumference of approximately 1 wavelength at 10 Hz produced enormous continuous electrical discharges at the 10 Hz frequency within the resonating cavity of the atmosphere.
It is interesting to note that this frequency appears in a number of biological systems. In the EEG for example, the dominant frequency from the point of total energy is 10 Hz and the EEG patterns of all animals with sufficient encephalization to demonstrate an EEG have basically similar patterns. (1)
The 10 Hz cyclic variations in the earth's normal electromagnetic field are probably the primary determinants of biological cycles. (2)
(1) Robert O. Becker and Andrew A. Marino, ELECTROMAGNETISM & LIFE. State University of New York Press, c1982, www.ortho.lsumc.edu
(2) Wever, R. 1974. ELF effects on human circadian rhythms. In ELF and VLF electromagnetic field effects, ed. M.A. Persinger, New York: Plenum.

Telepathy, precognitition and geomagnetic activity
A total of 621 reports (experienced over an approximately 70-year period) of putative psi experiences concerning death or crisis were differentiated according to traditional labels: telepathic, precognitive, and postmortem phenomena. The 232 telepathic experiences occurred during 24-hour periods in which the global geomagnetic activity was significantly less (quieter) than during the days before or after the experiences; this relationship was not displayed by the 186 precognitive or 203 postmortem cases. Key day differences in geomagnetic activity for the three classes of experiences were equivalent to a correlation of about 0.35. Although content analysis suggests that nocturnal psi experiences and temporal lobe epilepsy may share a similar mechanism, different classes of subjective psi experiences may not be affected by the same stimuli.
(source : Geophysical variables and behavior: LXXI. Differential contribution of geomagnetic activity to paranormal experiences concerning death and crisis: an alternative to the ESP hypothesis. by Michael Persinger, Behavioral Neuroscience Laboratory, Laurentian University, PPercept Mot Skills. 1993 Apr;76(2):555-62.

INDUSTRIAL SCALE

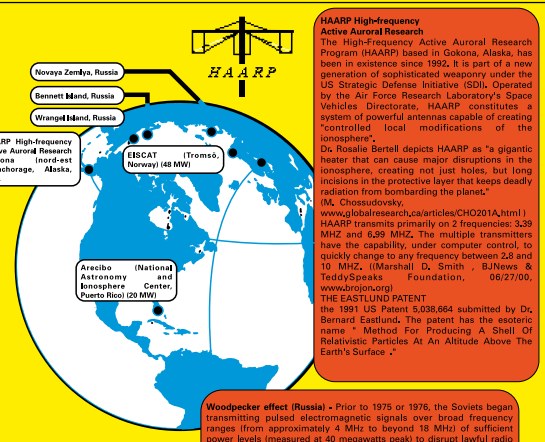


Lighting, heating, computers, domestic and electrical equipment, electrified railways, radar, television and communications, all use Alternating current (50Hz in Europe and 60Hz in America) as their power source.
It is the electromagnetic fields produced by Alternating Current that are now becoming recognised as a key contributory factor to many of our health problems.
Some researchers suggest that we would have fewer problems if the frequency chosen for mains electricity had been higher — 200 or 300Hz rather than 50 or 60Hz.

Rats exposed intermittently (30 min/day) to 100 kv/m, 50° Hz, for 8 weeks, exhibited elevated neutrophil levels and depressed lymphocyte levels (1).
The same results were found following 2, 5, and 7-weeks' exposure at 5 hours/day. In dogs, alteration of the blood profile was seen following exposure at 10-25 kv/m (8).
Meda (2) found a lymphocyte decrease and a neutrophil and eosinophil increase in rats after a single 6-hour exposure to 100 kv/m, 50 Hz.
(1) Cerretilli, P., Veicsteinas, A., Margonato, V., Cantone, A., Vida, D., Malaguti, C., and Previ, A. 1979. 1000kV project: research on the biological effects of 50-Hz electric fields in Italy. In Biological effects of extremely low frequency electromagnetic fields. DOE-50, p. 241. Washington D.C.: U.S. Dept. Energy.
(2) Maida, E., Cerrescia, V., and Cappa, S. 1974. Experimental results from exposure to AC electric fields. Bulletin No. 3, p. 19. Cologne: International Section of the ISSA for the Prevention of Occupational Risks due to Electricity.

50 Hz Rats exposed to 50 and 5300 v/m, 50 Hz : bradycardia (decreased heart rate) at both field strengths as soon as 15 minutes after commencement of exposure (1)
Bradycardia was also reported in rabbits following exposure to 50 Hz electric fields (2).
A 200 gauss, 50 Hz EMF also altered the natural resistance to infection (3).
(1) Fischer, G., Waibel, R., and Richter, Th. 1976. Influence of live-frequency electric fields on the heart rate of rats. Zbl. Bakt. Hyg., I Abt. Orig. B 162:376.
(2) Prokhvatilo, Yu.V. 1977. Reduction of functional capacities of the heat following exposure to an electromagnetic field of industrial frequency. JPRS 70101, p. 78.
(3)Udinstev, Yu.N. 1965. The effect of a magnetic field on the natural resistance of white mice to Listeria infection. JPRS 62865, p. 27.

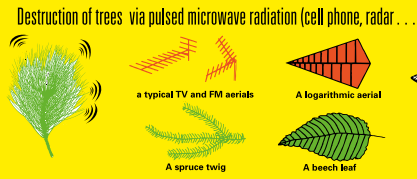
In 1979, a paper in American Journal of Epidemiology by Nancy Wertheimer (University of Colorado School of Medicine) and Ed Leeper suggests a link between childhood cancer and power frequency magnetic fields from wires that conduct electricity along residential streets and alleys, and wiring of the transformers that deliver 110/220 volt electricity to individual houses.



HAARP High-frequency Active Auroral Research
The High-Frequency Active Auroral Research Program (HAARP) based in Gokona, Alaska, has been in existence since 1992. It is part of a new generation of sophisticated weaponry under the US Strategic Defense Initiative (SDI). Operated by the Air Force Research Laboratory's Space Vehicles Directorate, HAARP constitutes a system of powerful antennas capable of creating "controlled local modifications of the ionosphere".
Dr. Rosalie Bertell depicts HAARP as "a gigantic heater that can cause major disruptions in the ionosphere, creating not just holes, but long incisions in the protective layer that keeps deadly radiation from bombarding the planet."
(M. Chossudovsky, www.globalresearch.ca/articles/CHO201A.html)
HAARP transmits primarily on 2 frequencies: 3,49 MHZ and 6,99 MHZ. The multiple transmitters have the capability, under computer control, to quickly change to any frequency between 2.8 and 10 MHZ. ((Marshall D, Smith , BJNews & TeddySpeaks Foundation, 06/27/00, www.brojon.org)
THE EASTLUND PATENT
the 1991 US Patent 5,038,664 submitted by Dr. Bernard Eastlund. The patent has the esoteric name " Method For Producing A Shell Of Relativistic Particles At An Altitude Above The Earth's Surface ."

Woodpecker effect (Russia) - Prior to 1975 or 1976, the Soviets began transmitting pulsed electromagnetic signals over broad frequency ranges (from approximately 4 MHz to beyond 18 MHz) of sufficient power levels (measured at 40 megawatts peak) to disrupt lawful radio communications globally.
At that time, communications systems of the world in the 3-30 megaHertz band suddenly met substantial interference from extremely powerful, chirped Soviet transmitters which were suddenly activated.Estimates of the power of these enormous transmitters vary, but figures range as high as several hundred megawatts These powerful transmitters were promptly nicknamed "Woodpeckers" because of the characteristic sound of the chirped signal when received. These transmitters have apparently never been precisely located by U.S. intelligence, but their beams carry much of the characteristics of an over-the-horizon (OTH) radar.
U.S. Navy confirms that Soviet ELF signals are indeed psychoactive and can cause mental depression at 6.6 Hz and at 11 Hz (or 10.80) can lead to manic and riotous behavior in humans.

Destruction of trees via pulsed microwave radiation (cell phone, radar . . .).



A study realized with microwaves also checked a long term descent in the levels of calcium and sulfur in the leaves of beech tree directly related with the power of the broadcast radiation (SCHMUTZ, P., SIEGENTHALER, J., STAEGER, C., TARJAN, D., BUCHER, J.B. 1996. Long-term exposure of young spruce and beech trees to 2450-MHz microwave radiation. Sci. Total Environ., 180: 43 – 49). The microwaves can affect the intercellular communication in animal cells, and that can affect the functioning to the calcium channels (DUTTA, S.K., GHOSH, B., BLACKMAN, C.F., 1989. . Radiofrequency radiation-induced calcium ion efflux enhancement from human and other neuroblastoma cells in culture. Bioelectromagnetics, 10: 197-202).

Some authors have notified cytogenetical changes (micronuclei, interchromosomial bridges and chromosomal fragments) induced in wheat exposed to a source of microwaves. They conclude that those effects are not thermal (PAVEL, A., UNGUREANU, C., BARA, II., GASSNER, P., CREANGA, DE, 1998. Cytogenetic changes induced by low-intensity microwaves in the species Triticum aestivum. Rev. Med. Chir. Soc. Med. Nat. Iasi., 102: 89-92).
In the area that received the radiation of Skrunda Radio Location Station (Latvia), the radial growth of pine trees (Pinus sylvestris) decreased. The beginning of this decrease in growth coincided with the start of operation of the radar. (BALODIS, V. G., BRUMELIS, K.KALVISKIS, O. NIKODEMUS, O. TJARVE. V. ZNOTINA. 1996. Does the Skrunda Radio Location Station dismiss the radial growth of pine trees? Sci. Total Environ., 180: 57-64).

Insects antenna

There was no life near base stations for mobile telecommunication. A decrease of insects and arachnids near those base stations was detected and corroborated by engineers and antenna's maintenance staff.

MAGNETIC EFFECTS ON HONEYBEE BEHAVIOR

1. Misdirection in the waggle dance influenced by weak magnetic fields
2. Dances on horizontal comb align with points of magnetic compass
3. Magnetic orientation of comb building
4. Time sense of bees influenced by geomagnetic variations
5. Extinction test conditioning experiment
6. Small magnets on anterior dorsal abdomen interfere with conditioning experiments
7. Pulse remagnetization converts North-seeking into South-seeking bees
8. Two-choice conditioning to ELF (Extremely low frequency) magnetic fields up through 60 Hz

Honeybees

Deformities in chick embryos

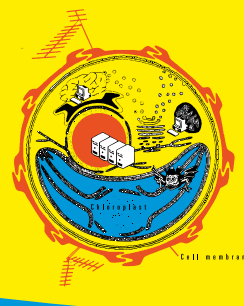
Dr Delgado found that chick embryos in eggs exposed to electromagnetic fields often failed to develop or else exhibited various deformities. (Delgado, J.M.R., et al. "Biological effects of extremely low frequency electromagnetic fields". Jour. Anat 1 34(3), (1982) pp.533-551 .

Breaking DNA via microwave

the effects of exposure to microwave radiation on the DNA in rat brains.
After as little as two hours' exposure to microwaves at precisely the frequency used in most microwave ovens there was a 20% increase in breaks in the DNA strands in the animals' brains. These breaks persisted for several hours after the experiment and one question is clearly whether such damage would become permanent after repeated exposure. (source : Electromagnetics &. VDU News 1995, vol.8, nos.1-2.)

Cellular inductor

Inductors in electronic equipment exist in series and in parallel with other inductors as well as with resistors and capacitors. Resistors slow down the rate of conductance by brute force. Inductors impede the flow of electrical charges by temporarily storing energy as a magnetic field that gives back the energy later. Capacitors impede the flow of electric current by storing the energy as an electric field. Capacitance becomes an important electrical property in alternating current (AC) circuits and pulsating DC circuits. The tissues of the body contain pulsating Direct Current (DC) circuits (1) and AC electric fields (2).
(1) Becker RO, Selden G. *The Body Electric*. New York: W. Morrow and Company Inc, 1985.
(2) Liboff AR. *Electric-field ion cyclotron resonance*. Bioelectromagnetics, 1997;18(1):85-87.



Cellular capacitor

The body uses the exterior cell membrane and positively charged mineral ions that are maintained in different concentrations on each side of the cell membrane to create a cell membrane potential (a voltage difference across the membrane) and a strong electrical field around the cell membrane. This electrical field is a readily available source of energy for a significant number of cellular activities including membrane transport, and the generation of electrical impulses in the brain, nerves, heart and muscles (1). The storage of electrical charge in the membrane and the generation of an electrical field create a battery function so that the liquid crystal semiconducting cytoskeletal proteins can in a sense plug into this field and powered up cell structures such as genetic material.The voltage potential across the membrane creates a surprisingly powerful electric field that is 10,000,000 volts/meter according to Reilly and up to 20,000,000 volts/meter according to Brown (2).
(1) Brown G. *The Energy of Life: The Science of What Makes Our Minds and Bodies Work*. New York, NY: The Free Press, 1999.
(2) Reilly JP. *Applied Bioelectricity: From Electrical Stimulation to Electropathology*. New York: Spri

Impulse

Membrane before high electric field influence

Breakdown

Membrane after high electric field influence

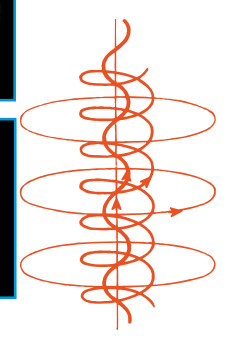
A number of membrane proteins as well as DNA consist of helical coils, which may allow them to electronically function as inductor coils. Also some research that I have seen also indicates that biological tissues may possess superconducting properties. If certain membrane proteins and the DNA actually function as electrical inductors they may enable the cell to transiently produce very high electrical voltages (Steve Haltiwanger, The Electrical Properties of Cancer Cells)

roll effects

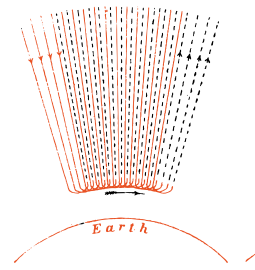
Time, energy and rotation
In the 1940s, the soviet astrophysicist N.A.Kozyrev proposed that the rotation of stars was connected with their energy output. According to the theory developed by N.A.Kozyrev, time and rotation are closely interconnected. In order to verify his theory, N.A.Kozyrev conducted a series of experiments with spinning gyroscopes. The goal of these experiments was to make a measurement of the forces arising while the gyroscope was spinning. N.A.Kozyrev detected that the weight of the spinning gyroscope changes slightly depending on the angular velocity and the direction of rotation. The effect he discovered was not large, but the nature of the arising forces could not be explained by existing theories. N.A.Kozyrev explained the observed effect as being the manifestation of some "physical properties of time" (1).
(1) Kozyrev N.A. "Prichinnaya ili nesimmetrichnaya mekhanika v lineinom priblizhenii.", Pulkovo, GAO AN SSSR, 1958, 90 p. (russian) ("Causal or asymmetrical mechanics in linear approximation.")
Kozyrev N.A. "On the possibility of experimental investigation of the properties of time." //Time in science and philosophy, Prague, 1971, p.111-132

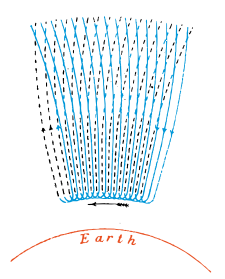
Heliospheric current

Birkeland currents

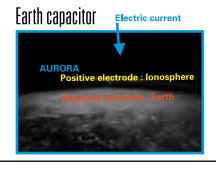


Birkeland Currents
Magnetic disturbances accompanying the aurora were caused by large electric currents flowing down the length of auroral formations.



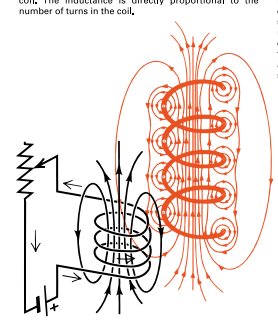


Earth capacitor



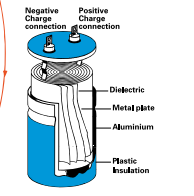
Inductor

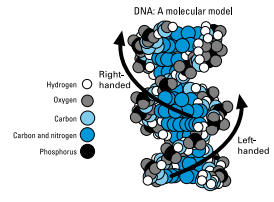
An inductor is a passive electronic component that stores energy in the form of a magnetic field. In its simplest form, an inductor consists of a wire loop or coil. The inductance is directly proportional to the number of turns in the coil.



Capacitor (condenser)

A capacitor is a passive electronic component that stores energy in the form of an electrostatic field. In its simplest form, a capacitor consists of two conducting plates separated by an insulating material called the dielectric. The capacitance is directly proportional to the surface areas of the plates, and is inversely proportional to the separation between the plates.





In the body, every single amino acid of every protein is found with the same left-handed chirality. It is this handedness that gives DNA the spiral shaped helical structure. As the electron and the hydrogen atom are the main connecting links between the atoms in the molecules, their right-handed Planck's fields should influence this process. It is known that DNA molecule helix is twisted to the right. We have every reason to believe that the direction of DNA helix twisting to the right is stipulated by the Planck's fields of the electrons and the hydrogen atoms, which mainly form the chemical bonds between the atoms of this molecule (Ph. M. Kanarev, The foundations of Physchemistry of Microworld, 2003)

lévogyre

dextrogyre

Chirality is a chemical term that means handedness. Although two chemical molecules may appear to have the same elements and similar properties, they can still have different structures. When two molecules appear identical and their structures differ only by being mirror images of each other, those molecules are said to have chirality. Left and right hands illustrate chirality. Hands may appear to be identical, but in reality, they are only mirror images of each other, hence the term handedness. In the body, every single amino acid of every protein is found with the same left-handed chirality. It is this handedness that gives DNA the spiral shaped helical structure.

PHOTON SCALE

What electromagnetic structure of a photon?
Why does the photon loose no energy when moving in the space?

The Universe is filled with the photons and exists in the photon medium.