

CONCEPT OF INTERNAL AND EXTERNAL MAGNETIC INFLUENCES OF NATURE ON LIVING WORLD ORGANISMS

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Abstract

Nowadays, humanity is under the influence of many factors, including the external environment, ecology, and the like. In this case, along with the human psyche, changes can be observed in its body. That is, changes in the amount of microelements in the body, such as their violation, are a serious problem for humanity. In such a situation, the changes occurring in the human organism require the study of the functions of living organisms, the currents existing in it, and the forces of influence.

Keywords: magnetosphere, current, chemical elements.

TIRIK DUNYO ORGANIZMLARIGA TA'BIATNING ICHKI VA TASHQI MAGNIT TA'SIRLARI HAQIDA TUSHUNCHA

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Annotatsiya

Hozirgi kunda insoniyatlashqi muhit, ekologiya va shu kabi ko'plab omillar ta'sirida qolmoqda. Bunda inson ruhiyati bilan birga uning tanasida ham o'zgarishlarni kuzatish mumkin. Ya'ni tanadagi mikroelementlar miqdorining o'zgarishi, buzilishi kabi holatlar insoniyatning jiddiy muammosidir. Bunday vaziyatda inson organizmida sodir bo'layotgan o'zgarishlar tirik organizmlarni funksiyasini unda mavjud oqimlarni va ta'sir kuchlarini o'rganishni taqazzo etmoqda.

Kalit so'zlar: magnitosfera, oqim, kimyoviy elementlar.

Introduction

Nature is an entity that existed before the emergence of man and with his participation. Nature obeys laws that do not depend on man or society. Man is a part of nature and at the same time receives from nature the necessary substances and elements for his organism to live and survive. There is also an invisible shell around the Earth, the magnetosphere, which protects the planet from sunlight. However, when solar flares occur, the speed of the current from the Sun to the



Earth increases, the pressure balance changes, the magnetosphere above the Earth is compressed, and the currents in it increase. This phenomenon is called a magnetic storm. As a result, charged particles from the Sun's magnetic field enter the Earth's magnetosphere, creating currents and causing changes in its magnetic field.

Methods

The external influence on living organisms is more important. A stream of charged particles from the Sun constantly affects the outer, uppermost part of the Earth's magnetic field (the magnetosphere). However, the stream is not always stable and can change. Its disturbances cause coronal holes and mass ejections. During these events, the nearest star to us releases billions of tons of plasma. This is like detonating thousands of nuclear bombs at once. If the stream is directed towards the Earth, the particles can reach it. Usually this takes two to three days, but with powerful emissions, the plasma can travel 150 million kilometers in 18 hours. [1] When the stream reaches our planet, it creates a shock wave that compresses the Earth's magnetosphere. The collision of protons in this stream with hydrogen atoms in our atmosphere creates an electric current. Gradually, as the storm subsides, the magnetosphere returns to normal and the stream dissipates. The internal magnetic effect is directly related to the amount of enzymes, hormones, and vitamins that are most necessary for life and are constantly present in the human body (i.e., in the blood). The lack of these elements can lead to disruption of the functioning of the human body. Therefore, we can say that blood is an electrolyte, that is, a liquid containing charged particles-ions. But, on the other hand, blood performs a constant movement by transporting charged particles-ions. But we know that the orderly movement of charged particles is an electric current[2]. Therefore, the disordered movement of ions is responsible for the small amount of electric current present in a living organism. Any directed movement of electric current is accompanied by two mandatory processes - this is heating of conductors and the creation of a magnetic field, a current around the conductor.

Results

As a result of such external effects of the magnet and the internal effects of the organism, living organisms have different life forms. We feel the consequences of these effects. Usually, external effects last an average of 6-7 hours and return to normal in 3 days. However, internal magnetic effects that occur in humanity and all living organisms constantly have a continuous effect on the way the organism lives. Thus, living organisms have a magnetic field[3]. The magnitude of the magnetic field is higher where the blood flow is stronger. Scientists and doctors have proven that the magnetic field lines in the heart area thicken. If we pay attention to the magnetic effect on the human body, usually elements with magnetic properties interact with each other (ferromagnetic, paramagnetic, diamagnetic). For example, ferromagnets are attracted to points of the human body where arterial pressure is high.





Figure 1 shows what a human magnetic field looks like from the perspective of modern medicine.

Discussion

Thus, we once again confirm the truth about the inextricable connection of nature and all living things in it, about the incredible wisdom of nature. Such knowledge is necessary for our students. It is precisely such information that is the most important manifestation of STEM education, where all natural sciences, such as physics, chemistry and biology, are brought together separately. However, human magnetism is a poorly studied phenomenon, and there is still no unified opinion about this phenomenon. In some literature, this phenomenon is called magnetic erection. We tried to find the closest interpretation of this phenomenon from the point of view of physics.

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