Mathematical model of the formation of electricity from the atmosphere of our planet

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Abstract. The article is devoted to the mathematical model of the internal structure of the atmosphere of our planet based on the discovery of new laws that allow to determine the strength of physical interaction between the electrons of various atoms or molecules in the atmosphere of our planet. The structure of the interatomic space of the atmosphere consists of various atoms or molecules that are not subjected to violent actions over the interatomic space of these atoms or molecules, where the altered structure of the interatomic space of the atmosphere under the influence of various factors changes the energy balance and density of the interatomic space of atoms or molecules of the atmosphere of our planet. The scientific community is faced with a dilemma: to accept the interatomic space of the atoms of the atmosphere of our planet, which, with the help of external influences, changes their density and decomposes into electrons or the interatomic space of atmospheric atoms, with the help of external influences, changes the density, the force of interaction between electrons receives and transfers power to other objects located in the atmosphere of our planet.

Keywords: mathematical proof of the structure of atoms, the energy connection between atoms and molecules, new laws that determine the strength of the physical interaction between the electrons of an atom.

Many scientists have been interested in how the atom works for a long time. In my opinion, a more correct model of the atom was proposed in 1903 by the English physicist Thomson Joseph Johnson, according to which the atom is a positively charged sphere with electrons embedded in it, where the total negative charge of electrons is equal to the positive charge of the sphere. In 1904, Thomson introduced the idea that electrons in an atom are divided into groups forming various configurations that determine the periodicity of chemical elements, where the atomic nucleus was not present in Thomson's model of the atom, Fig. 1.

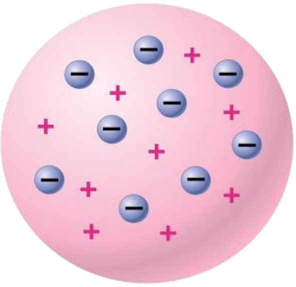

Fig.1

According to many modern scientists, who claim that the atom contains a nucleus, which consists of nucleons - positively charged protons and neutral neutrons, connected with each other through a strong interaction, where the nucleus of the atom should be positively charged and, according to its properties, should determine the chemical element to which the given atom belongs. In 1913, the scientific community made a decision based on the idea of the German theoretical physicist, the creator of Planck's quantum theory, Marx Karl Ernst Ludwig, about the quantum energy of the atom based on the assumption that atomic oscillators emit energy only in certain portions - quanta, where the quantum energy is proportional to classical physics. oscillation frequency. Danish theoretical physicist Niels Henrik David Bohr, based on the model of the atom proposed by the English physicist Ernest Rutherford, created their own theory of the hydrogen-like atom. This theory was based on three postulates that directly contradicted classical concepts and laws. Moreover, Ernest Rutherford made an experiment in 1919 that became the most significant in his life and in the development of nuclear physics. The scientist, by bombarding it with alpha particles of nitrogen, turned it into oxygen and hydrogen and did what many alchemists dreamed of at the time, where one element was converted into another.

Of course, you can change the structure of the atom itself with the help of radioactivity, but it will already be a different atom with different physical and chemical properties and will be very different from the original. For example, it is not known at what level the electron of the new atom has become, how its mass, size, density changed, the force of interaction between the electrons of the atom, which will be located at different levels, and the energy of the interatomic space of a given atom, and so on...

You can, of course, divide the interatomic space of an atom into separate electrons, but then the question arises where the spent electrons, neutrons and protons, moving along the conductor after performing work in the conductor, go, since a separate electron from any atom cannot be attached anywhere without radioactive interference.

If it were so easy to move electrons from one atom to another atom and change the density of interatomic space, it would be easier to obtain gold atoms from mercury atoms to enrich oneself and one's country.

Now it is not a sensation that the beginning of all living organisms on our planet came from radionuclides, and nuclear reactions over individual atoms or molecules with the help of radioactive radiation and internal conversion took place on our planet during its formation, forming the atmosphere of our planet.

For example, according to the new law of the force of interaction between the electrons of a nuclear-free atom of the material under study, which was discovered and published in the scientific and practical journal "High school" № 3 for 2021, we will determine the force of interaction between various nitrogen atoms and oxygen atoms that make up the atmosphere of our planet.

$$F = p \cdot (\lambda \cdot n_а) \cdot (\lambda \cdot n_к) = \frac{кг}{м^3} \cdot \left(\frac{м^2}{с} \cdot \text{шт} \right) \cdot \left(\frac{м^2}{с} \cdot \text{шт} \right) = Н$$

F = 1,2041 kg/m^3 · (0,000019 m^2/s · 5) · (0,000019 m^2/s · 6) = 1,30404 · 10^{-8} H

where:

F - the force of interaction between nitrogen and oxygen atoms, H

P - density of the interatomic space of air at 20 ºC = 1,2041 kg/m^3

λ - thermal diffusivity of electrons in air at 20 ºC = 0,000019 m^2/s

n_a - number of electrons in the outer row of nitrogen = 5 pc.

n_k - number of electrons in the outer row of oxygen = 6 pc.

For example, Fig. 2, according to the new law, we will determine the strength of the interaction between the two electrons of the first row of the nitrogen atom included in the atmosphere of our planet.

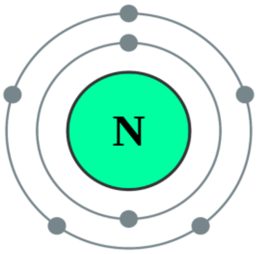

Fig.2

$$F = p \cdot (\lambda \cdot n_{\text{B}}) \cdot (\lambda \cdot n_{\text{H}}) = H$$

F = 1,2505 kg/m^3 · (0,02775 m^2/s · 1) · (0,02775 m^2/s · 1) = 0,00096296315625 H

where:

F - the force of interaction between two electrons of a nitrogen atom, H

P - density of nitrogen gas atoms at 20 ºC = 1,2505 kg/m^3

λ - thermal diffusivity of nitrogen electrons at 20 ºC = 0,02775 m^2/s

n_b - the number of electrons in the first row of the nitrogen atom = 1 pc.

n_H - the number of electrons in the first row of the nitrogen atom = 1 pc.

For example, according to the new law, we will determine the strength of the interaction between two electrons of the first row of the nitrogen atom and five electrons of the second row of the nitrogen atom that make up the atmosphere of our planet.

$$F = p \cdot (\lambda \cdot n_{\text{B}}) \cdot (\lambda \cdot n_{\text{H}}) = H$$

F = 1,2505 kg/m^3 · (0,02775 m^2/s · 2) · (0,02775 m^2/s · 5) = 0,0096296315625 H

where:

F - the force of interaction between electrons of different levels of the nitrogen atom, H

P - density of nitrogen gas atoms at 20 ºC = 1,2505 kg/m^3

λ - thermal diffusivity of nitrogen electrons at 20 ºC= 0,02775 m^2/s

n $_b$ - the number of electrons in the first row of the nitrogen atom = 2 pc.

n $_H$ - the number of electrons in the first row of the nitrogen atom = 5 pc.

Let us determine the total strength of the internal interaction between all the rows of electrons of one nitrogen atom.

0,00096296315625 H + 0,0096296315625 H = 0,01059259471875 H

For example, according to the new law, we will determine the strength of the interaction between two nitrogen atoms of the same name that make up the atmosphere of our planet.

$$F = p \cdot (\lambda \cdot n_{\text{B}}) \cdot (\lambda \cdot n_{\text{H}}) = H$$

F = 1,2505 kg/m^3 · (0,02775 m^2/s · 5) · (0,02775 m^2/s · 5) = 0,02407407890625 H

where:

F - the force of interaction between electrons of different levels of the nitrogen atom, H

P - the density of nitrogen gas atoms at 20 ºC = 1,2505 kg/m^3

λ - thermal diffusivity of nitrogen electrons at 20 ºC = 0,02775 m^2/s

n $_b$ - the number of electrons in the second row of the nitrogen atom = 5 pc.

n $_H$ - the number of electrons in the second row of the nitrogen atom = 5 pc.

For example, Fig. 3, according to the new law, we will determine the strength of the interaction between the two electrons of the first row of the oxygen atom included in the atmosphere of our planet.

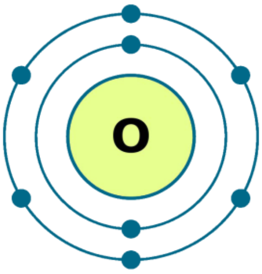

Fig.3

$$F = p \cdot (\lambda \cdot n_{\text{B}}) \cdot (\lambda \cdot n_{\text{H}}) = H$$

F = 1,42895 kg/m^3 · (0,02845 m^2/s · 1) · (0,02845 m^2/s · 1) = 0,0011565957023 H

where:

F - the force of interaction between two electrons of an oxygen atom, H

P - density of oxygen gas atoms at 20 ºC = 1,42895 kg/m^3

λ - thermal diffusivity of oxygen electrons at 20 ºC = 0,02845 m^2/s

n b - the number of electrons in the first row of an oxygen atom = 1 pc.

n H - the number of electrons in the first row of an oxygen atom = 1 pc.

For example, according to the new law, we will determine the strength of the interaction between two electrons of the first row of the oxygen atom and six electrons of the oxygen atom of the second row that make up the atmosphere of our planet.

$$F = p \cdot (\lambda \cdot n_{\text{B}}) \cdot (\lambda \cdot n_{\text{H}}) = H$$

F = 1,42895 kg/m^3 · (0,02845 m^2/s · 2) · (0,02845 m^2/s · 6) = 0,0138791484285

where:

F - the force of interaction between the electrons of the oxygen atom, H

P - density of oxygen gas atoms at 20 ºC = 1,42895 kg/m^3

λ - thermal diffusivity of oxygen electrons at 20 ºC = 0,02845 m^2/s

n b - the number of electrons in the first row of an oxygen atom = 2 pc.

n H - the number of electrons in the second row of an oxygen atom = 6 pc.

Let us determine the total strength of the internal interaction between all rows of electrons of one oxygen atom.

0,001156595702375 H + 0,0138791484285 H = 0,015035744130875 H

For example, according to the new law, we will determine the strength of the interaction between the oxygen atoms of the same name that make up the atmosphere of our planet.

$$F = p \cdot (\lambda \cdot n_{в}) \cdot (\lambda \cdot n_{н}) = H$$

F = 1,42895 kg/m^3 · (0,02845 m^2/s · 6) · (0,02845 m^2/s · 6) = 0,0416374452855 H

where:

F - the force of interaction between the electrons of an oxygen atom, H

P - density of oxygen gas atoms at 20 ºC = 1,42895 kg/m^3

λ - thermal diffusivity of oxygen electrons at 20 ºC = 0,02845 m^2/s

n_{b} - the number of electrons in the second row of an oxygen atom = 6 pc.

n_{H} - the number of electrons in the second row of an oxygen atom = 6 pc.

For example, Fig. 4, according to the new law, we will determine the strength of the interaction between one electron of the fourth row of the copper atom and six electrons of the second row of the oxygen atom included in the atmosphere of our planet.

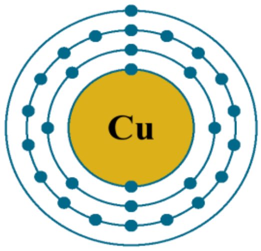

Fig.4

$$F = p \cdot (\lambda \cdot n_{м}) \cdot (\lambda \cdot n_{к}) = H$$

F = 1,2041 kg/m^3 · (0,0001125 m^2/s · 1) · (0,02845 m^2/s · 6) = 2,31232353 · 10^{-5} H

where:

F - force of interaction between copper and oxygen atoms, H

P - density of the interatomic space of air at 20 ºC = 1,2041 kg/m^3

λ - thermal diffusivity of copper electrons at 20 ºC = 0,0001125 m^2/s

λ - thermal diffusivity of oxygen electrons at 20 ºC = 0,02845 m^2/s

n_{m} - the number of electrons of the fourth row of copper = 1 pc.

n_{k} - number of electrons in the second row of oxygen = 6 pc.

For example, let us determine the strength of the interaction between the electrons of the first row of a copper atom having two electrons.

$$F = p \cdot (\lambda \cdot n_{в}) \cdot (\lambda \cdot n_{н}) = H$$

F = 8,93 kg/m3 · (0,000111 m^2/s · 1) · (0,000111 m^2/s · 1) = 0,00000011002653 H

where:

F- the force of interaction between the electrons of the copper atom, H

p - density of the medium of the interatomic space of copper = 8,93 kg/m^3

λ - thermal diffusivity of copper electrons at 25 ºC = 0,000111 m^2/s

n_b - the number of electrons in the first row of a copper atom = 1 pc.

n_h - the number of electrons in the first row of a copper atom = 1 pc.

For example, let us determine the strength of interaction between two electrons of the first row of a copper atom and eight electrons of a copper atom of the second row.

$$F = p \cdot (\lambda \cdot n_{в}) \cdot (\lambda \cdot n_{н}) = H$$

F = 8,93 kg/m3 · (0,000111 m^2/s · 2) · (0,000111 m^2/s · 8) = 0,00000176042448 H

where:

F- the force of interaction between the electrons of a copper atom, H

p - density of the medium of the interatomic space of copper = 8,93 kg/m^3

λ - thermal diffusivity of copper electrons at 25 ºC = 0,000111 m^2/s

n_b - the number of electrons in the first row of a copper atom = 2 pc.

n_h - the number of electrons in the second row of a copper atom = 8 pc.

For example, let us determine the strength of the interaction between the eight electrons of the second row copper atom and the eighteen electrons of the third row copper atom.

$$F = p \cdot (\lambda \cdot n_{в}) \cdot (\lambda \cdot n_{н}) = H$$

F = 8,93 kg/m3 · (0,000111 m^2/s · 8) · (0,000111 m^2/s · 18) = 0,0000158438203 H

where:

F- the force of interaction between the electrons of a copper atom, H p - density of the medium of the interatomic space of copper = 8,93 kg/m^3

λ - thermal diffusivity of copper electrons at 25 °C = 0,000111 m^2/s

n_b - the number of electrons in the second row of a copper atom = 8 pc.

n_h - the number of electrons in the third row of a copper atom = 18 pc.

For example, let us determine the strength of the interaction between eighteen electrons of the third row of the copper atom and one electron of the fourth row of the copper atom.

$$F = p \cdot (\lambda \cdot n_{\text{в}}) \cdot (\lambda \cdot n_{\text{н}}) = H$$

F = 8,93 kg/m3 · (0,000111 m^2/s · 1) · (0,000111 m^2/s · 18) = 0,0000019804775 H

where:

F- the force of interaction between the electrons of a copper atom, H

p - density of the medium of the interatomic space of copper = 8,93 kg/m^3

λ - thermal diffusivity of copper electrons at 25 °C = 0,000111 m^2/s

n_b - the number of electrons in the third row of a copper atom = 18 pc.

n_h - the number of electrons in the fourth row of a copper atom = 1 pc.

Let us determine the total force of the internal interaction of all electrons of one copper atom.

0,00000011002653 H + 0,00000176042448 H + 0,0000158438203 H = 0,00001771427131 H

For example, let's define the strength of the interaction between the atoms of the same name of copper.

$$F = p \cdot (\lambda \cdot n_{\text{в}}) \cdot (\lambda \cdot n_{\text{н}}) = H$$

F = 8,93 kg/m3 · (0,000111 m^2/s · 1) · (0,000111 m^2/s · 1) = 0,00000011002653 H

where:

F- the force of interaction between the electrons of the copper atom, H

p - density of the medium of the interatomic space of copper = 8,93 kg/m^3

λ - thermal diffusivity of copper electrons at 25 °C = 0,000111 m^2/s

n_b - the number of electrons in the fourth row of a copper atom = 1 pc.

n_h - the number of electrons in the fourth row of a copper atom = 1 pc.

After the calculations, Fig. 5, it turned out that the force of interaction between like-named nitrogen atoms is less than between like-named oxygen atoms. The total force of the internal interaction of all electrons in the interatomic space of oxygen is greater than all electrons in the interatomic space of nitrogen.

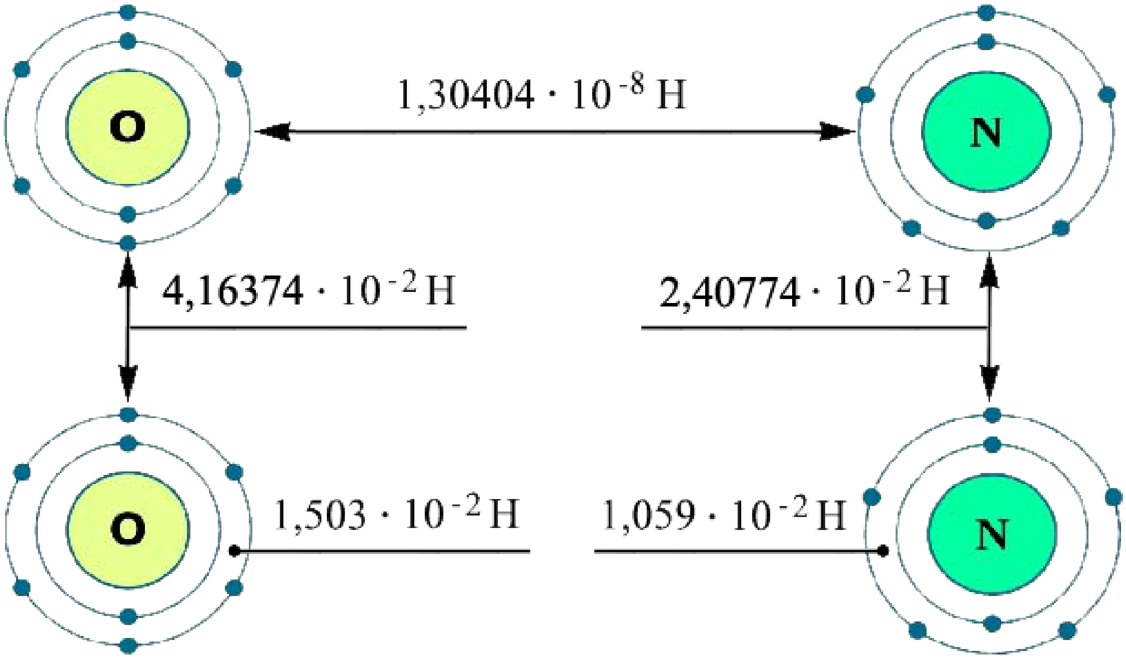

Fig.5

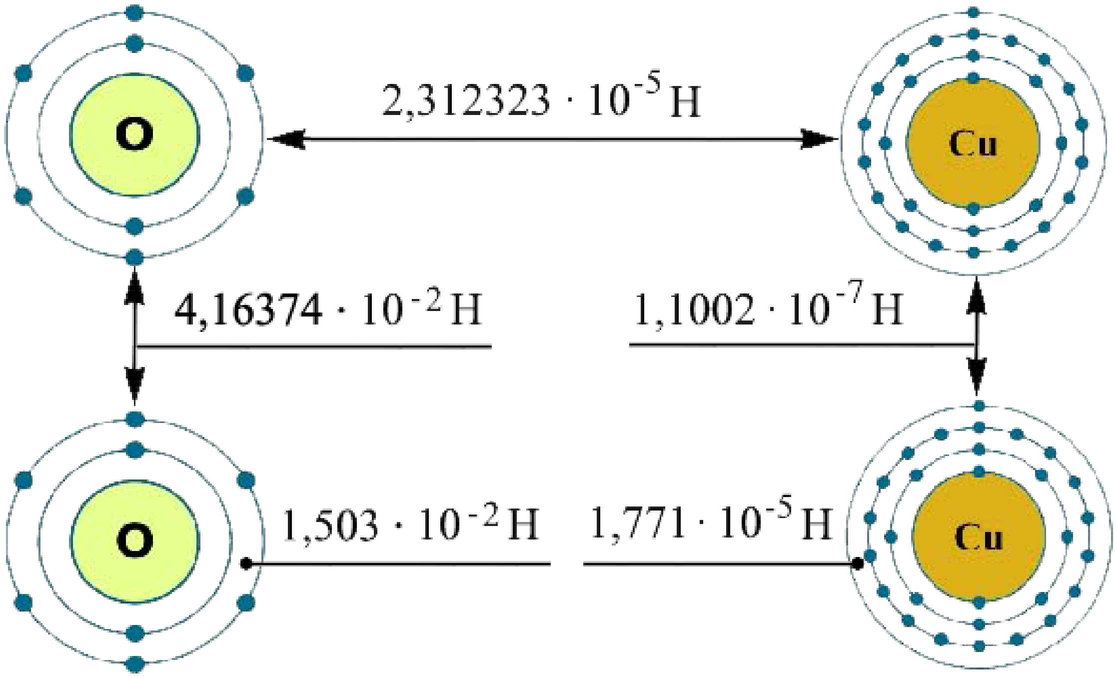

Fig.6

The force of interaction between the like-named copper atoms Fig. 6 is less than between the like-named oxygen atoms. The total force of the internal interaction of all electrons in the interatomic space of oxygen is greater than all electrons in the interatomic space of copper. The force of interaction between an oxygen atom and a nitrogen atom is less than between an oxygen atom and a copper atom.
After the contact of oxygen atoms with copper atoms, the difference in the internal forces of interaction between these atoms is obtained. The internal forces of oxygen atoms are redistributed and transfer part of their energy to copper atoms. After the redistribution of internal forces, the oxygen atom begins to deplete and lose some of its strength and energy. As a result, the density and internal stress of oxygen atoms decreases. Then the depleted oxygen atom begins to absorb the magnetic energy of our planet and partially restore its energy balance.

Further, the saturated oxygen atom with magnetic energy, using artificial or natural convection, moves along the surface of a conductor consisting of copper and transfers the accumulated magnetic energy to another object. After completing this work, the oxygen atom is freed from magnetic energy and restores its original purpose without disturbing the ecological system of our planet.

Mathematical proofs are being put forward, deserving special attention, according to which it is not electrons that move along the conductor, but oxygen atoms or nitrogen atoms, which can receive energy from some energy sources and give it to other energy sources. In this case, it is necessary to pay special attention to the fact that after performing a certain work, the oxygen atoms moving along the conductor are restored in the atmosphere of our planet.

This mathematical evidence confirms that individual electrons, neutrons or protons cannot move along the conductor, since it is not known where they then go after the work is done and where they came from, if they were not subjected to external violent exposure to radioactive radiation. It should also be noted that without violent interference in the structure of the atom, it is impossible to divide it into separate electrons in any other way. This evidence can be confirmed by the mechanism of formation of thermoelectric currents arising in dissimilar conductors when the temperature of the hot and cold junction changes, where there is no violent interference with the structure of oxygen or nitrogen atoms by radioactive radiation.

It should be emphasized that both oxygen atoms and nitrogen atoms, which have different densities of interatomic space and different numbers of electrons, can be carriers of the magnetic energy of our planet.

In conclusion, we can say that our material world is very diverse and all the processes occurring in it from random circumstances that occur in time, in varying degrees, affect one another, therefore a new theory of multifaceted dependence is being put forward. In this world, everything is intertwined, and one phenomenon of nature is in varying degrees dependent on another. More active material bodies dominate over less active material bodies, therefore there can be no independent and constant constants, laws or physical quantities. For example, the new law of gravitation and cosmic interaction between two material bodies that are located in the space of the Solar system or another system is closely related to the new law of gravitation of one material body located in the space of the Solar system to the central star of the Sun. At the same time, the laws of gravitation and cosmic interaction are in constant dependence on the new law of the activity of a material body located in space and the new law of the acceleration of free fall of bodies in space. And the listed laws are closely related to the new law of energy between two material bodies that are in the space of the solar system and the new law of the energy of one material body located in the space of the solar system to the central star of the sun and many others...

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