

The Cognition of Reality
By The Methods of Classic Physics

© 2002 Sukhorukov G.I., Sukhorukov E.G., Sukhorukov R.G.

Bratsk State Technical University
40, Makarenko St., Bratsk 665709
Russia
E-mail: nil_nu@brstu.ru

Based on experimental and theoretical researches macro and microcosm models have been developed.

The human beings are always exiting by the mysteries of the Universe. In the process of accumulation experiment materials scientists created theories, many of them had become incorrect. Also the incorrect theories exist in present time. Theories, which are adequately showing the physical world, can only be created on principals of classical physics [1]. The world around us has an astonishing variety. This variety was built with the help of only two types of elementary particles – electron and proton.

The unbounded space of the Universe is filled in the world of ether medium –. All information about world around us gives us ether waves (light, X-rays (roentgen rays), radio waves etc.). The establishing of wave nature of the light and other radiations eliminates every doubts about authenticity of existing of ether. Without medium, the definition of wave loses the sense. The wave process goes with transferring of energy, but it can't transfer without material transmitter – the ether. The ether waves come to us both from the remote areas of the Universe, and from the depth of atoms, and from atom nucleuses. Thus, all space of macro and micro cosmos is filled in ether.

We have developed the electron and proton model of the world, which explains all its properties that seem conflicting. The majority of scientists are

The described ether model assumes an existing more thinner medium, that transferring electric and gravitational interreaction. Lets call this medium as sub-ether. The light and X-rays can't travel in this medium. So as acoustic waves can travel in solid, liquid and gas, but can't travel in ether, as well as electromagnetic waves can travel in electron-proton ether, but can't travel in sub-ether. Sub-ether is a medium, through that force interreaction is transferring from charged substances to other with the light velocity and in that radiations can travel with wave-length less than 10^{-11} m. There isn't mythical de Broil wave in nature. There are only ether and sub-ether waves.

Plank and Einstein had determined that wave radiation is emitting by atoms discretely and travel in the area as small energy blobs. This energy blobs are called light quantum or photons. Einstein, as he refused the ether, he was forced to consider that photons are particle, which have wave properties. For this reasons electronic waves diffraction in Davidson and Gemer experiments had to explain by waves properties of electrons. There was brought in physics a contradictory philosophical conception – corpuscular-wave dualism.

Corpuscular-wave dualism had eliminated differentials between particles and waves. Depending on experiment conditions, any object of the microcosm (electron, proton, neutron and others) can behave itself either as particle or as wave. So, one more step away from reality had been made. In the real world photon is spiral wave, which is traveling in ether medium with light velocity. Under its movement a photon progressively energizes new and new medium volumes, but does not carry medium. A particle, unlike a wave, on its movement carries all substance, which contained in its size. The particle can't become a wave in any case.

According to quantum physics, we could write parity:

$$m_{\phi}c^2 = h\nu, \quad (1)$$

where m_{ϕ} – photon mass, c – velocity of light, h - Plank constant, ν – the frequency of emitted waves. From this equation we received:

$$\nu = \frac{m_{\phi}c^2}{h}, \quad \lambda = \frac{h}{m_{\phi}c}. \quad (2)$$

where m – electron mass, V' – its velocity with subject to movement effect, $\beta = 1 + m/M$, M – mass of nuclear. For removing electron from atom, photon is needed a energy $E = m_{\phi}c^2$. So, we can write:

$$m_{\phi}c^2 = \frac{mV'^2\beta}{2}. \quad (3)$$

From which we received:

$$m_{\phi} = \frac{mV'^2\beta}{2c^2}. \quad (4)$$

The last formula allows us to make conclusion, that photon mass depends on electron velocity. Under electron movement with sub-light velocity, the photon mass less than electron mass. If $V=c$, than $m_{\phi}=m\beta/2$. In fact, this conclusion is incorrect. All photons have the same mass equal to electron mass. It is easy to prove.

$E=mc^2$ formula for photons is incorrect. Really photon energy is evaluated by formula [2]:

$$E = \frac{M_{\phi}V_{\max}^2}{2},$$

where M_{ϕ} – photon mass, under that conditionally understands ether mass of small volume, which is by quantum of energy, which has radiated by atom; V_{\max} – the amplitude velocity of energized ether. Now in place of equation (3) we can write:

$$\frac{M_{\phi}V_{\max}^2}{2} = \frac{mV'^2\beta}{2}.$$

Amplitude velocity can't be more than electron velocity in atom V' , which it received after photon radiation. They are always equal. As a result of reason the photon mass practically equal to electron mass:

$$M_{\phi} = m\beta.$$

According to formula $E = m_{\phi}c^2$ the amplitude velocity of all photons are equal to the same quantity: $V_{\max} = \sqrt{2}c$. This preternatural assumption had ad-

$$h\nu = \frac{mV^{1/2}\beta}{2}; \quad v = \frac{mV^{1/2}\beta}{2h}; \quad \lambda = \frac{2hc}{mV^{1/2}\beta}.$$

In our point of view, the beta-disintegration of neutron and all other weak interactions is easy to explain, if pay heed to that fact, that neutron isn't an elementary particle. It consists of electron and proton. Electron in neutron can implement movement on different quantum orbits. In neutron, which contains the atom nuclear, electron is going on circular orbit with velocity, which is equal to the light velocity. If neutron is turn out the nuclear, then electron can turn to the higher orbit, it radiated a energy quantum here. This energy quantum is neutrino. The quantity of the energy, which is being taken away, will depend on from what and into what orbits electron has passed at radiating neutrino. After neutrino is radiated, neutrons can disintegrate to electrons and protons. Appearing electrons will have different kinetic energies, that's is observed by experimentalists, which explore the beta-disintegration. A neutrino, as a photon, is spiral wave, but unlike the photon, it isn't travel in the ether, it spreads in sub-ether. The physicians can't register the waves now, which are traveling in the sub-ether. Here is a secret of the elusive neutrino.

All in the nature is arranged very simply and reasonable. If the electron and proton would have equal masses, than all substance in the Universe would be in the atomized state. All the universe space would has monotone dull view. However, as a result of that the electron mass is less than 1836 times, thus, in the micro- and macrocosm can existing isolated, steady formations (atom nuclears, atoms, planets, stars, etc.). As a result of the big inertness, protons in micro- and macroobjects is doing, in general, small oscillating movements, but electrons, which go on complex trajectory, are guaranteeing stability these objects. The theory is going to this conclusion, in which basis the models precisely reproducing a true structure of various objects of the universe lay.

It is impossible to get to know reality with theories of modern physics, because they was built on the basis of paradoxical, therefore incorrect, postulates and hypothesises. So, according to relativity theory, the kinetic energy of

$$F = \frac{d}{dt}(mV') = \frac{d}{dt} \left(\frac{mV}{\sqrt{1-V^2/c^2}} \right) = \frac{m \frac{dV}{dt}}{\left(\sqrt{1-V^2/c^2} \right)^3} \quad (6)$$

According to this expression, in process of increasing of particle velocity, the force, which operates on it, is continuously increasing and at approaching of particle velocity to the light velocity, force aim at infinity. However, it contradicts to universally recognized fact of finiteness of extension interaction velocity. According to this, the force, what operates on particle, vise versa have to aim at zero.

In the first parantheses of equation (6) we write mV' , instead of mV , and so we have shown that not a particle mass “m” is increasing with increasing of its velocity, but the velocity itself is a quantity has been depended on the movement effect. As it was shown in work [1]

$$V' = \frac{V}{\sqrt{1-V^2/c^2}}$$

Equation (6) is been written in such view, describes the dependence of force, which operates on moving electron in atom, from its velocity. According to the theory relativity, the kinetic energy is [3]:

$$E_k = \int_0^V \frac{mVdV}{\left(\sqrt{1-V^2/c^2} \right)^3} \quad (7)$$

After integration, we'll receive the formula (5). This formula can be used for definition of kinetic energy of electrons in atoms, because the error was been allowed in its conclusion. In the formula (7) the efficient V is written without taking the movement effect to into consideration. The right expression for the kinetic energy has such view:

$$E_k = \int_0^V \frac{mV'dV}{\left(\sqrt{1-V'^2/c^2} \right)^3} = \int_0^V \frac{mVdV}{\left(\sqrt{1-V^2/c^2} \right)^3} = \frac{mV^2c^2}{2(c^2-V^2)} = \frac{mV'^2}{2} \quad (8)$$

The definitions, such as the rest energy and the total energy, the rest mass and the relativistic mass are senseless and unreflecting real facts.

We have developed the calculation procedure of parameters of orbits of complex atoms, which are calculated on known value of ionized potentials, which can be theoretically calculated by the same way. On the basis of the formula [1]:

$$V_{n+1} = \frac{1}{\beta_{n+1}} \sqrt{2V_n^2 \beta_n^2 + \frac{2V_H^2 \beta_H^2}{k^2} - V_{n-1}^2 \beta_{n-1}^2} \quad (10)$$

we compute orbit velocities of electrons without movement effect, and on the basis of the formula (9) we find value of ionized potentials taking into consideration the effect of movement. In formula (10) V_{n-1} , V_n , and V_{n+1} are orbital velocities of three neibow ions. All three ions have the equal number of electrons. V_H is orbital velocity in hydrogen atom. In the paper [1] the calculated values of for the first 36 atoms of periodic table of elements were brought. Thus, it is possible to calculate any complex atom theoretically.

It is possible to bring out the right formula for the kinetic energy of the particle moving in accelerator. The more higher the velocity of particle, the less the force with which the electromagnetic field acts to the particle:

$$F = \frac{d}{dt} \left(mV \sqrt{1 - V^2/c^2} \right) = \frac{m \frac{dV}{dt}}{\sqrt{1 - V^2/c^2}}$$

Taking into account the effect of movement, we'll find expression for kinetic energy of a particle in the accelerator:

$$E_k = \int_0^x F dx = \int_0^V F V' dt = \int_0^V \frac{m V' dV}{\sqrt{1 - V^2/c^2}} = \frac{mV \sqrt{1 - V^2/c^2} dB}{\sqrt{1 - V^2/c^2}} = \frac{mV^2}{2} \quad (11)$$

where x is the length of the way, which had been gone by the accelerated particle.

At aspiration of particle velocity to light velocity the kinetic energy of a particle will be compared to $(mc^2)/2$.

accelerator in Batavia (state Illinois, the USA) can accelerate protons to velocity of $0,999998 c$ [4]. If to use formulae of theory of relatively, that the serpuhov accelerator gives to the protons the energy equal 76 GeV , and the Batovia accelerator – 500 GeV . As it was shown above, these formulae are incorrect. According to the formula has been brought out by us for the accelerators (11) protons in serpuhov accelerator will take energy $469,089 \text{ MeV}$, and in Batavia accelerator – $469,134 \text{ MeV}$. In such case, the costs on building and maintenance of Batavia accelerator is incommensurably more, than the Serpuhov accelerator costs, but additional energy, which is received by protons, is only 45 eV .

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