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Gravitational properties of an atom equivalence of energy and atomic gravity

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The strength of any substance is created by interatomic forces of attraction. By the nature of the interatomic forces, the following types of bond in solids are distinguished: ionic, covalent, metallic, hydrogen, the Van der Waals bond. In this paper, we propose to consider a new model of interatomic bonds. The proposed physical model is based on the author's theory of vortex gravity, cosmology, and cosmogony. In this theory, the evidence is offered that gravity, celestial bodies, and atoms create etheric vortices. Ether, as an extremely dense gas, permeates any substance, except for atomic nuclei. In theory, an equation was calculated for determining the forces of vortex gravity - Fg, which is equivalent to determining the forces of interatomic attraction

[F]_g=V×□×(v_r^2)/r (1) where

V is the volume of nucleons to which the force of vortex gravity acts, that is, the nucleus of the neighboring atom, vr is the speed of the orbital revolution of the ether in the considered orbit, r is the radius of the orbit on which the force of the vortex gravitation is determined, and □ is the ether density.

The orbital velocity (vr) in the atomic vortex has an inversely quadratic dependence on the distance to the center of the vortex (r), in accordance with Kepler's law Vr~1/√r. On the surface of the nucleus of an atom, the force of the vortex gravitation reaches its maximum value, at which the ether compresses in the center into a super dense state. The density of the substance of nucleons is the same in all elementary particles. Thus, the nucleus of the atom is formed, which the ether can not permeate. When moving away from the nucleus, the force of the vortex gravity weakens to the interatomic attraction. A decrease in the orbital velocity of the ether causes an inversely proportional change in pressure P = □ v2r (3). The change in pressure in a gaseous medium, apart from the creation of gravitational forces, also generates energy in a given volume of ether. This regularity is represented by the Mendeleev-Klaiperon equation E = 3/2 Pvt (4), where E is the energy, P is the pressure, and Vt is the volume of the gas under consideration (the vortex). Substituting (3) into (4), we obtain the energy in one atomic vortex - E = 3/2 □ v12 Vt (5). Equation (5) is equivalent to the empirical formula E = m c2 but has a theoretical justification. When the atom (nucleus) is destroyed (split), the atomic vortex also collapses. At the same time, the pressure in the torsion increases sharply to the values of the free ether, which should be accompanied by the release of energy, in accordance with formula (5).

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