

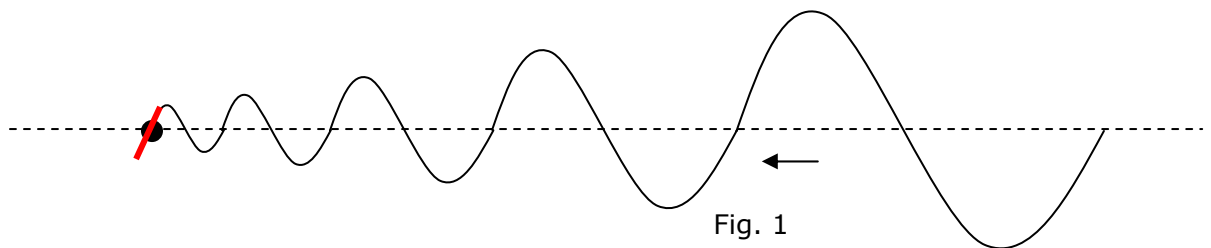
# Trajectories of bodies at capture and gigantic atoms

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## Abstract

The present global sensation in this article is that any physical phenomenon is by and large connected to motion of a matter (material bodies). The facts speak that the official science nothing knows about this motion, therefore all its outcomes not worth a brass farthing and are suit only for a waste basket.

In the monograph [1] is shown, that all free bodies move on a screw trajectory. It concerns, as to bodies of a microcosmos, and macroworld. As the electrostatic interplay is similar to a gravitational interaction because of an identical kind of the formulas of a law of universal gravitation and Coulomb's law, for a determinancy, we shall esteem here gravitational interaction [1] shown on a figure 1.



The trajectory of a capturing body is shown from a direction, perpendicular axis of a screw line. As approaching to central body radius of a screw trajectory decreases, and the speeds tangential and translational motion are augmented. Thus these speeds remain equal one another. In the issue body appears captured on a circular orbit with parameters:

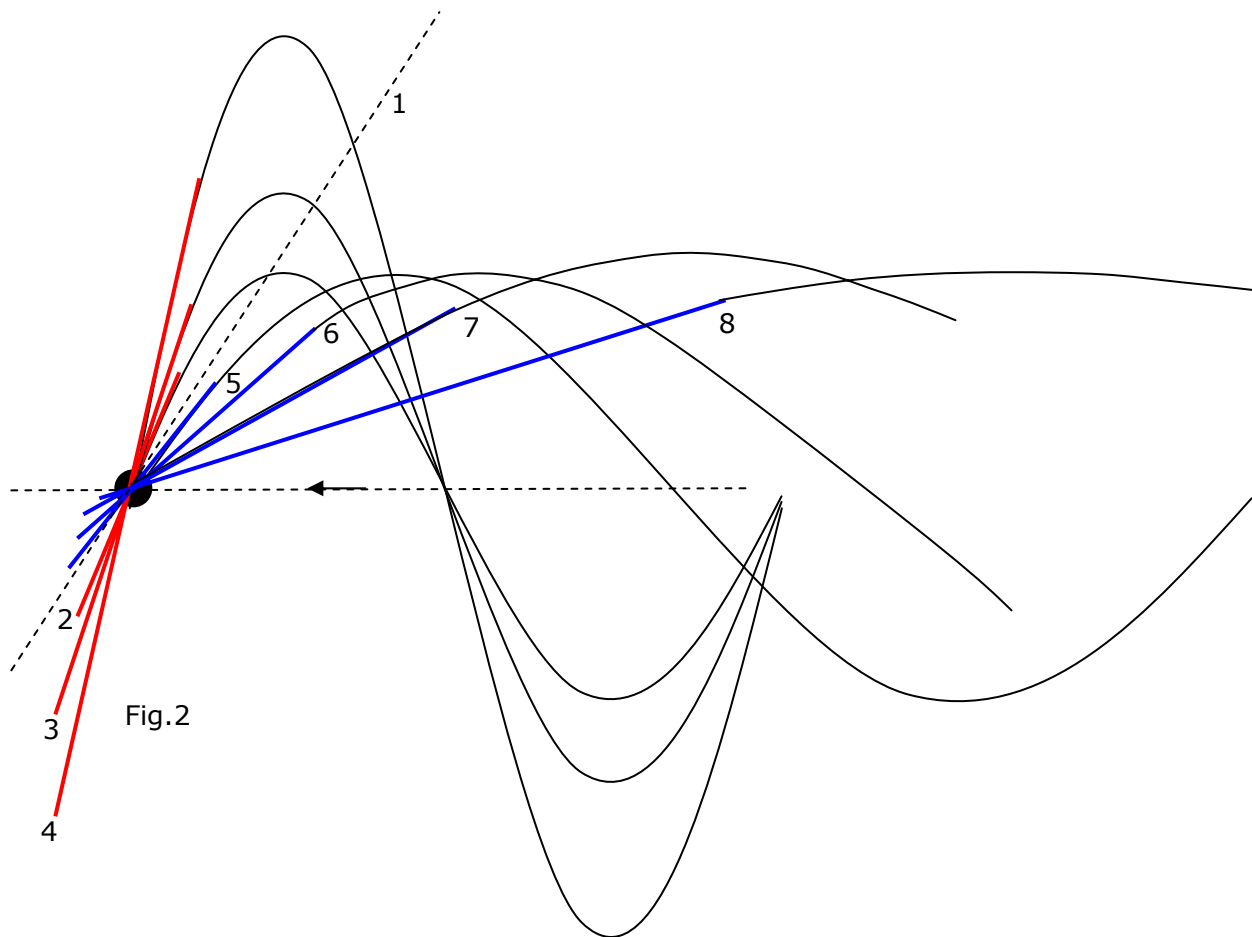
$$r_0 = \frac{\alpha^2}{GM} \quad (1),$$

where:  $r_0$  - radius of orbit,  $\alpha = Vr$ , where  $V$  - tangential velocity on a coil of a screw trajectory of a body,  $r$  - radius of a coil,  $M$  - mass of a central body. Bond energy with a central body  $W_0$  expresses by the formula:

$$W_0 = -\frac{G^2 M^2 m}{2\alpha^2} \quad (2),$$

where:  $G$  - gravitational constant,  $m$  - mass of a capturing body.

From a figure 1 it is understandable, that the orthodoxes, while, do not imagines an actual trajectory of a body at capture.



On a figure 2 the trajectories of bodies on last coil before capture are shown. Digit 1 shows a direction amounting with a direction an axes of a screw trajectory the angle  $\beta = 45^\circ$ . All bodies having on perpetuity zero forward speed after capture, will form a circular orbit, the plane by which one is inclined on an angle more than  $45^\circ$  to an axis of a screw trajectory. With increase of a tangential velocity on perpetuity (increase  $\alpha$ ) this angle grows, radius of a circular orbit also grows pursuant to the formula (1). These trajectories are indicated by red colour (2,3,4). If at the same tangential velocity to augment forward speed of a body by perpetuity, after capture there is elliptical orbit, the eccentricity is proportional to which one translational (kinetic) energy of a body on perpetuity. The plane of elliptical orbit makes with an axis of a screw trajectory an angle less than  $45^\circ$ . These trajectories are indicated by cyan colour (5,6,7,8). If this energy is peer to depth a potential well pursuant to the formula (2), the eccentricity becomes to equal unit and the capture is impossible. The capturing body on a parabolic trajectory again leaves in perpetuity.

Capture shown on a figure 1 we shall call as rigid capture. At such capture radius of a circular trajectory is minimum, and the bond energy with a central body is max. With increase  $\alpha$  radius of a circular trajectory is augmented, and the bond energy with a central body decreases. Such acquisition we shall call as mild capture.

### **Gigantic atoms.**

The analysis of different versions of gravitational capture allows with success to transfer conclusions of this analysis on an electron capture by atom. In particular, us the mild electron capture will interest. Imagine, that we not permit to atom to capture an electron by version of rigid capture, at which one at the expense of an electrostatic attraction of an electron to a positive ion the screw trajectory of an electron considerably decreases in the sizes. If to realise mild capture, obtaining gigantic known atoms is possible. These atoms, by dimensions from normal up to rydberg of atoms, will be stable as against last because the valence electrons in them have a unique value of an angular momentum  $\hbar$ , instead of multiple, as in rydberg atoms,

from which one get rid at any capability. For implementation of mild electron capture it is necessary them to hold by an external electrical field, which one accelerates a positive ion and the electron brakes. If to pick up the conforming initial velocities of ions and electrons, the mild capture can be executed at minimum closing velocity of an electron with an ion. Thus radius of a screw trajectory of an electron will be same large, as for a free thermal electron, accordingly, radius of a circular orbit of a captured electron will be same large. In chemical relation production of gigantic atoms is of interest, for which one all valence electrons are captured by means of mild capture.

Production of gigantic atoms and the synthesis from them of gigantic molecules opens indeed fantastic outlooks before chemistry, medicine, biology and technology. The capability of obtaining of any given parameters of orbits of captured electrons is boundless dilates these outlooks.

Let's consider, as an example, activity of a power accumulator on the basis of gigantic molecules of hydrogen. Let's suspect, that the vessel by volume of 100 liters is filled by such hydrogen at normal conditions. At some small heating of a part of gas the gigantic molecules of hydrogen will begin to dissociate on gigantic atoms of hydrogen, and last to be ionized, being disintegrated on protons and electrons. Electrons we shall let in an external electric network and is return in a vessel, where they again incorporate with protons with formation already of customary atomic hydrogen, which one will turn to normal molecular hydrogen. In all described processes the energy is excreted except for a minor initial thermal impulse for start. It is interesting to count up fund of energy in a similar power accumulator. Let's neglect the exuded electrical energy and thermal energy in reacting transformation of an atomic hydrogen in molecular. Let's consider, that this energy we have spent for control of a thermal mode of the installation, since it very much resembles a nuclear reactor and potentially is capable to result in potent thermal explosion. In 100 l are contained  $100:22.4=4.5$  mols of gas, or  $4.5 \cdot 6 \cdot 10^{23} \cdot 2 = 0.54 \cdot 10^{25}$  atoms. At each interplay of a proton with an electron with formation of normal atom of hydrogen is excreted 13.6 eV of energy. The general energy release in this process will make  $13.6 \cdot 0.54 \cdot 10^{25}$  eV or quantity of energy to equivalent incineration of 280 liters of gasoline (and weight of hydrogen in a vessel only 9 grams). Thus, the power accumulator will convert «gigantic» hydrogen in ordinary in ecological clean process. Naturally, that the obtained energy at a plant on production gigantic atoms should be expended.

In a pressurized vessel charged by gigantic molecules of hydrogen at large pressure under operating of an electric spark there is an instantaneous transformation of gigantic hydrogen in normal to such energy release, which one is unapproachable at usage of any known explosives.

Basically, any gigantic atoms can be used for welding, knife cut and meltings of any materials, including, and in space conditions also.

#### **Difficulties of implementation.**

After sweet imaginations we shall pass to a reality, which one, as always, appears not such artless, as dreams.

The official science outgoes from the first Newton's law at the description of motion of free bodies - they should move uniformly and rectilinearly. Therefore mechanism of capture of an electron by a proton or space body by a central body is represented identical. If to transmit an electron with aiming spacing interval  $r$  to a proton and if speed of an electron on this spacing interval will be peer «of the first space velocity», there will be capture on a circular orbit of radius  $r$ . If the speed of an electron will be more, will be received not circumferential and elliptical orbit with an eccentricity, in a limit, equal unit. If the speed on aiming spacing interval will be less «of the first space velocity», conforming to this spacing interval, the electron on a spiral will come nearer to a nucleus, while the attractive force will not become to equal centrifugal effort. Thus it will take a steady circular orbit. The reasoning on capture of a space body will stay precisely same, therefore official science is obliged to draw a conclusion that orbits of any entrapped bodies are arbitrary, as arbitrary aiming spacing interval both speed straight-line and uniform motion. The facts contradict this conclusion of official physics. If it was right, the gigantic atoms can easily be produced. Naturally, that the

ionization energy of atoms of hydrogen could be any, but it always 13.6 eV. In relation to atoms of hydrogen for orthodox physics actually double fallacy. «Wave function» of an electron in atom has miscellaneous value in miscellaneous places of atom distinguished in some times, therefore probability to find an electron in these places, which one is peer to a square of amplitude of a wave function, differs in tens time. Apparently, it is ionization energy of hydrogen, in this connection, also should be completely acritical that contradicts experiment. When result in reasonable reasons for the benefit of that or diverse notion of new physics, the orthodoxies are in common throw on these reasons: «for us in a micro cosmos their, quantum laws, we perceive them by sense not, and ordinary plebeians them to not understand at all». Concerning space bodies also there should be orbits with arbitrary parameters, instead of the quantum state of planets and satellites, as it is shown in chapter 20 and 20.1. Thus, on the basis of error notions about motion of bodies it is impossible anything concrete to say about a capability of creation of gigantic atoms from the point of view of official science. **The present global sensation in this article is that any physical phenomenon is by and large connected to motion of a matter (material bodies). The facts speak that the official science nothing knows about this motion, therefore all its outcomes not worth a brass farthing and are suit only for a waste basket.**

In what conclusions new physics results us? An equation (21.2.1) or (2.3) [1] for electrostatic interplay demonstrate, that steady orbit bodily is determined by value  $\alpha$ , which one has the free body on screw trajectory. Apparently, what is it value for an electron (1.1576 cm<sup>2</sup>/sec) is determined by extremely its constitution and it by a gravidynamic field. It cannot be changed in any way, therefore electron capture occurs into alone orbit strictly instituted by an equation (2.3) [1], instead of into arbitrary orbit suspected by orthodox physics. Is received, that the value  $\alpha$  for an electron completely eliminates a capability of creation of gigantic atoms - only normal atoms of hydrogen.

To find the new approaches to this problem, we are address to rydberg atoms. An electron in rydberg atoms (chapter 13.5 [1]) has multiple value  $\alpha$ , obtained from sequentially absorptive photons by atom. By the way, here I address. attention of the reader to one more error of orthodoxies. They consider an angular momentum («a spin» - in their nomenclature) of free electron half-integer, accordingly, and on any orbit the moment of an electron should have odd value, and apply the whole multiple value of «spin» after Bohr. Where logic? I advise them electronic mass to multiply on its orbital velocity (in 137 times less speeds of light) and on radius of orbit of Bohr and to think, as the obtained value to superpose with half-integer «spin» of an electron. It is possible to take advantage of rydberg atoms as follows. Is made ionization of such atom having definite multiple value of an orbital moment. The obtained mobile electrons will have multiple value  $\alpha$  in pursuance of the law preservations of a moment since to transmit it there is nobody. As a result of connection of such «gigantic» electrons with ions, we shall receive gigantic atoms. Such roundabout, though is connected to large padding costs and complexities, but it is represented is unique possible.

#### References:

- 1 <http://www.new-physics.narod.ru>