ENERGETIC POSTULATE

<<Atoms of matter are constructed from ring derivations of linear energy having translational parameter, equal speed of light, and making sustained oscillations on discrete frequencies appropriate to integer of half-waves stowed on perimeter of ring>>.

The name of each such ring derivation is **POLYTRON.**

The name of energy, which polytrones consist of is **ERGOLINE.**

The word of ergoline is composed from two words: units of measurement of energy - erg (from Greek Ergon - activity) and English word line.

For more easy handling with physical sense of ergoline we shall at first to treat it as some quasimatter substance, which has in space the unique measurement – length, inextricably related with frequency of oscillations.

Nevertheless, it is necessary to remember, that ergoline is not energy of motion of particles or waves and is not their speed. Ergoline is a substance, which carry in itself all manifestations of the surrounding world, perceived by our sense organs or devices – space, time, weight etc.

The instant configuration of ergoline in polytron is named **polytronic quantoide** or simplly **quantoide.**

Mandatory property of quantoide is stability of its length.

The resonant segments of quantoide between adjacent nodes are named **quantrons.**

The number of quantrons in polytron (or number of nodes) is named as the frequency order of polytron and is marked by the Latin **m** character.

It is completely obviously, that the frequency order of polytron can receive only integer values and is main parameter of the discreteness of ergoline. For free polytrons the frequency order can be only even, whereas for polytrons having at least one connected node, the frequency order can be both even, and odd.

Depending on the direction of oscillations of quantoide concerning to axis of polytron, the polytrons and quantrons are named radial and axial.

Amplitude of oscillations of quantoide is inversely proportional to the frequency order of polytron and at its changing is vary spasmodically (in discrete steps). Both radial, and axial amplitude have superior limit, which dependent on the frequency order of polytron and its total energy. The amplitudes of polytrons are characterized by radial $\mathbf{n_r}$ and axial $\mathbf{n_a}$ amplitude orders.

In Fig.1 are shown third-quantronic and fourth-quantronic polytrons in modes of radial and axial vibrations.

The denotation of polytron consists of its reduced title, amplitude and frequency orders recorded through fraction, and denotation of a vibration mode.

For example: PT1/3R **—** PolyTron, having m=3 radial quantrons, with the amplitude order, equal 1.

PT0.5/4A **—** PolyTron, having m=4 axial quantrons, with the amplitude order, equal 1/2.

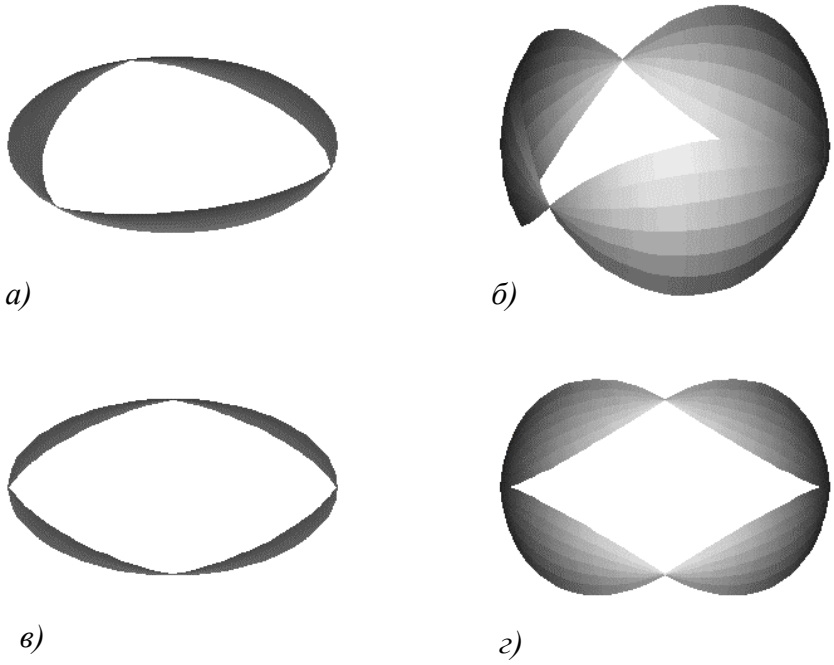

Fig. 1
The shapes of radial (а, в) and axial (б, г) polytrons at m=3 and m=4.

The area circumscribed by the radial quantoide at its oscillations within the limits of one quantron, is named as the dynamic area of quantron.

The dynamic area of whole polytron is proportional to length of quantoide and its amplitude of oscillation; therefore it can serve the characteristic of an energetic state of radial polytron.

Obviously as well that nodes of polytron cannot remain fixed. At the moments of maximum amplitude of quantoide they are nearer to center of polytron, than in those moments, when the amplitude passes through zero value. Diameter of the circle, on which one nodes of polytron are placed at the moment of maximum radial amplitude of quantoide, is named as radial dynamic diameter of polytron. Accordingly, diameter of the sphere, on surface which one are places nodes of polytron at the moment of maximum axial amplitude, is named as axial dynamic diameter of polytron. Diameter of the circle (sphere), on which one nodes of polytron place at zero value of amplitude, we shall name as the static diameter, though would be more exact to call it as contact or exchange diameter.

If to coincide radial and axial polytrons of the same frequency order, it will appear, there is only unique ratio of the amplitude orders, at which one the nodes of polytrons are coincided permanently and pulse synchronously. At all other ratio of the amplitude orders the nodes are coincided only on static diameter.

In connection with aforesaid, it is possible qualitatively to explain a way of exchange of portions of energy between polytrons and, accordingly, way of transportation of thermal, electrical and electromagnetic energy through a strata of matter.

For the description of static and dynamic states of polytrons in polar coordinates and in time we shall enter the following denotations of its basic sizes:

Ds - static diameter of polytron

Dr - radial dynamic diameter of polytron

Da - axial dynamic diameter of polytron

φ - polar angle in equations, circumscribing a state of polytron

ν_m or **ν(m)** - frequency of the natural oscillations of polytron at a given frequency order.

Polytrons are joined with each other in nodes, forming openwork spatial frames. For connection of polytrons three conditions should be fulfilled — condition of coincidence of directions of ergoline in nodes, condition of coincidence of frequencies and condition of coincidence of polarization of oscillations. According to the energetic postulate the polytrons are exchange by portions of energy. Each portion carries in itself two inseparably linked components — the constant component, which is directed on tangent to quantoide, and transversal oscillatory component.

The energetic concept of constitution of matter was developed with the purpose more logically explain interactions of experimentally observed regularity of matter and energy radiation, and was compared with the fundamental laws of classical and quantum physics.

The more logical explanation and more exact quantitative confirmation of experimental data are obtained for processes of radiation (absorption) of energy, and for processes of a transmutation of mass and energy.

With the help of the retrieved mathematical expressions the calculation of the exact sizes both energy parameters of atoms and research of their frame is possible.