ABOUT NEW, GEOMETRICAL INTERPRETATION OF THE PRINCIPLE OF PAULIE AND POSSIBLE QUANTITY OF ELEMENTS OF THE TABLE OF MENDELEYEV

Yurkin A.

Branch of Public Joint-stock Company of the Federal network company of the Power pool system, Moscow main power network company, Russia, 142201, Moscow Region, Serpukhov, Pionerskaya St., 11. Tel.: 8(985)388-7590, e-mail: alvl1yurkin@rambler.ru

In works [1, 2] the geometrical model on the plane consisting of systems of paraxial rays, describing distribution of light in lasers, a turbulent and laminar flow of liquid in pipes, and also finding of an electron in infinitely deep potential hole was offered. In work [2] it was noted that the offered model can be used for evident interpretation of the movement of particles with integer and to half-integer spin.

Offered work, it is devoted to geometrical interpretation on the plane of trajectories of the movement of particles with half-integer spin. Numerical calculations, as well as in work [2], were carried out by means of three-dimensional tables in the Excel program.

Interpretation of the Principle of Paulie showing distribution of electrons on power levels of atom is given in the offered work geometrical (by means of small angles and systems of rays on the plane).

Geometrical interpretation of the main, azimuthally, magnetic and spin quantum numbers in the form of angles and rays is given in the offered work.

In the offered work electron shells and sub shells are interpreted as system of the wavy trajectories consisting of direct inclined pieces.

Research of the offered geometrical model assumes that the quantity of elements of periodic system of Mendeleyev, perhaps, doesn't exceed 128.

The author expresses gratitude to the Prof. V. V. Dikusar, the Prof. A. A. Rukhadze and the Prof. S.E. Shnol for useful discussions and support.

References

1. *Yurkin A.* Quasi-resonator a new interpretation of scattering in lasers // *Quantum Electron.*, **Vol. 24**, 1994 p. 359.
2. *Yurkin A.* Symmetric triangle of Pascal and arithmetic parallelepiped. On possibility of new evident geometrical interpretation of processes in long pipes. - Lambert Academic Publishing, 2015, ISBN: 978-3-659-38411-0 (ISBN: 978-3-8443-2275-0).