Mini Review

Dark energy and its use in Byuon heat installation

Abstract

Based on the theory of Byuon (non-gauge theory of the formation of the world around us: the physical space, the world of ultimate particles, etc on the basis of interaction of unobservable objects named "byuons") the unified physical nature of dark energy and heating water energy in the vertical circuit of a thermal installation are shown. The conversion coefficient of electrical energy into thermal energy in such installations is greater than unity.

Keywords: theory of byuons; new non-gauge force, dark energy, heat installation.

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In[1-3] a new non-gauge theory of the formation of the world around us is developed (Theory of Byuon, TB). It is assumed that there is no space, no time, not a world of elementary particles, but there is a finite set of unobservable objects of byuons, the expression for which has the form:

$$\Phi(i) = \begin{cases} [\mathbf{A}_g \ x(i)], \\ -\sqrt{-1} \ [\mathbf{A}_g \ x(i)] \end{cases}$$

where $x(i)$ is the byuon length, real (positive or negative) quantity that depends on index $i = 1,2,\ldots,k$.. Quantity $\mathbf{A}_g$ is an internal potential whose modulus is equal to the cosmological vector potential ($A_g \approx 1.95.10^{11}$ Gs.cm).. The world around us is formed as a result of minimizing the potential energy of interaction of byuons in the one-dimensional world formed by them. As a result of this minimization, the expressions for byuons actually include a certain total potential ($\mathbf{A}_\Sigma$), which in absolute value is always less than $\mathbf{A}_g$. In TB, part of the masses of elementary particles associated with the process of formation of their internal physical space is proportional to the modulus of $\mathbf{A}_\Sigma$. If you reduce the total potential due to the potentials of any fields, then any material body will be pushed out of the area of weakened $\mathbf{A}_\Sigma$. As a result of the above, a previously unknown new non-gauge force of nature[1-11] and a new energy appear. The author called the new energy byuon energy ($\Delta E= \Delta mc^2$.). In the TB framework, if the change in $\mathbf{A}_\Sigma$ is due to the gravitational potential, then the new energy will correspond to the dark energy observed by astrophysicists. This phenomenon is discussed in detail in.[12] A huge number of astrophysical phenomena are explained on the basis of TB.[1-3,12-15] Let us briefly explain its essence. It is known that the gravitational force falls as $1/r^2$, and the potential as $1/r$ (r-distance). The gravitational potential is negative, therefore, at large distances at the location of a neighboring galaxy, it creates a new force and new energy for galaxies to move away with acceleration.

A similar phenomenon is observed on Earth. On the surface of the Earth, the gravitational potential is more negative than at altitude, therefore, in addition to the gravitational force on the earth, there is also a new byuon force that pushes the material body upward. Based on the above, a large complex of studies has been carried out in Russia (2003-2024) and Italy (2012-2015) on the creation of thermal power plants for heating water. The photo shows one of these installations, located in Mytishchi town, Moscow region in Russia (2024). It is a 15 m high pipe that houses a closed water circuit, which is pumped by two pumps. From the above it is clear that the higher the installation, the more new energy it will give. It is not realistic to make an installation with a height of 1000 m. Therefore, in[16] a sectional version of installations installed in series is proposed. The total conversion coefficient of electrical energy into thermal energy (K_Σ) in such installations will be equal to $K_\Sigma = K^n$, where n is the number of sections of the installation, K - coefficient of conversion of electrical energy into thermal energy for one section. For example, if you have five sections and the K value is 1.5, then the K_Σ value will be 7.59.

Figure 1 Thermal power plant, Mytishchi town, Moscow region, Russia (2024). Electrical power consumption is 50 kW, thermal power output is 60 kW.

Thus, the article shows the physics of the appearance of galaxy repulsion based on a new non-gauge force confirmed by ground experiments conducted at the heat installation shown in the photo (Figure 1).

References

1. Baurov Yu A. Structure of Physical Space and New Method of Obtaining Energy (Theory, Experiment, Applications), Moscow. "Krechet. 1998.

2. Baurov Yu A. On the structure of physical vacuum and a new interaction in Nature (Theory, Experiment and Applications), Nova Science, NY, 2000.

3. Baurov Yu A. Global Anisotropy of Physical Space. Experimental and Theoretical Basis. Nova Science, NY, 2004.

4. Baurov Yu A, Klimenko E Yu, Novikov SI. Experimental observation of Space magnetic anisotropy. *Phys Lett A.* 1992;162:32–34.

5. Baurov Yu A. Space magnetic anisotropy and a new interaction in nature. *Phys Lett A.* 1993;181:283–288.

6. Baurov Yu A. Experimental investigation of the distribution of pulsed–plasma–generator radiation at its varios spatial orientation and global anisotropy of space. *Phys Lett A.* 2003;311:512–523.

7. Baurov Yu A, Znak AG, Farafonov VG. Experimental Investigation of Heat Content in the Jet of Magnetoplasmadynamic Accelerator in Accordance with its Spatial Orientation, Adv. Plasma Phys. Res., New York: Nova Science Publishers Inc. 2007;5:179–196.

8. Baurov Yu A, Kopaev AV. Experimental Investigation of Signals of a New Nature with the Aid of Two High Precision Stationary Quartz Gravimeters. *Hadronic Journal.* 2002;25:697–707.

9. Baurov Yu A, Konradov AA, Kuznetsov EA, et al. Experimental Investigations of Changes in β–Decay rate of 60Co and 137Cs. Mod. *Phys Lett A.* 2001;16;2089–2101.

10. Baurov Yu A, Sobolev Yu G, Ryabov Yu W, et al. Experimental Investigations of Changes in β–Decay rate of radioactive elements. *Phys Atom Nucl.* 2007;70:1825–1835.

11. Baurov Yu A, Nikitin VA, Dunin VB, et al. Results of experimental investigations of 60Co β–decay rate variation. ArXiv:1304.6885 [nucl–ex].

12. Baurov Yu A, Malov IF. On the Nature of Dark Matter and Dark Energy. Preprint arXiv:0710.3018, 2007 – arxiv.org.

13. Baurov Yu A, Shpitalnaya AA, Malov IF. Global Anisotropy of Physical Space and Velocities of Pulsars. *International Journal of Pure &Applied Physics.* 2005;1(1):71–88.

14. Baurov Yu A. The Anisotropy of Cosmic Rays and the Global Anisotropy of Physical Space. *Journal of Modern Physics.* 2012;3:1744–1748.

15. Baurov Yu A, Malov IF. The Nature of Gamma–Ray Bursts in Framework of Byuon Theory. *Physics &Astronomy International Journal.* 2017;6(6).

16. Baurov Yu A. Spatial homeostasis, quantum information channel, and the nature of living things within the framework of the byuon theory (Nova Science, NY 2021).