

Transformation of energy in the low-temperature gas plasma

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The goal of this scientific and research work organized by independent research team is a studying of low-temperature gas plasma to determine the circumstances of high efficiency transformation of energy of longitudinal oscillations of plasma to energy of transverse electromagnetic waves radiated by the device. Also it is planned to study influence of the longitudinal waves on the radioactive materials and entropy processes.

Theoretical and experimental research are made in many countries. In particular conditions [1] the significant excess of energy of electromagnetic radiation over the energy input spent to provide longitudinal oscillations of plasma is possible. Frequencies of oscillations (occurring on the known Langmuir frequency) and other parameters of plasma are calculated by traditional method [2]. A convincing theoretical ground of the concept using the mathematical apparatus by Minkovsky was found. An excess of output power over the input power spent is possible theoretically only under consideration of the open four-dimensional system, in which the flow of energy is provided by the mechanism of interaction with the environment aether. In this case aether or "physical vacuum" plays the role of environment. Therefore the parameters of vacuum (i.e. parameters of space-time) should be changed to correspond to the level of output power. It's important to note that there is a possibility of visa versa transformation of heat photons to the longitudinal waves. That's why we can say that the technology use some part of natural closed cycle of transformation of energy from one type to another. This conception is based on the famous works by N. A. Kozyrev, who was one of the first authors to use the theory of energy transformation in four-dimensional consideration to analyze the energy of the Sun and other stars.

A model of vacuum applied in research [3] takes into account the processes of creation and annihilation of the virtual electron-positron pairs interacting with the real particles of plasma. This phenomenon let us to explain reason of appearance of longitudinal wave in space (for example, this wave is radiated by plasmotron) and to see theoretical basis of the possibility of influence on the period of half-decay of radioactive elements and other processes. All this has an evident applied significance in industry and medicine.

At present time our research team is on the stage of construction of the devices of 100 Watt power level only, but the technology have no theoretical limit to increase output power.

References

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