# The Scheme of Physical Model
## of Experiments by E. Podkletnov, V. Roshchin and S. Godin

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A summary of the known parameters in the frames of the given model of the experiment made by E. Podkletnov is the following: The scheme of flash chamber is shown on the Fig. 1. The device is shown vertically, though in real experiment it was located horizontally.

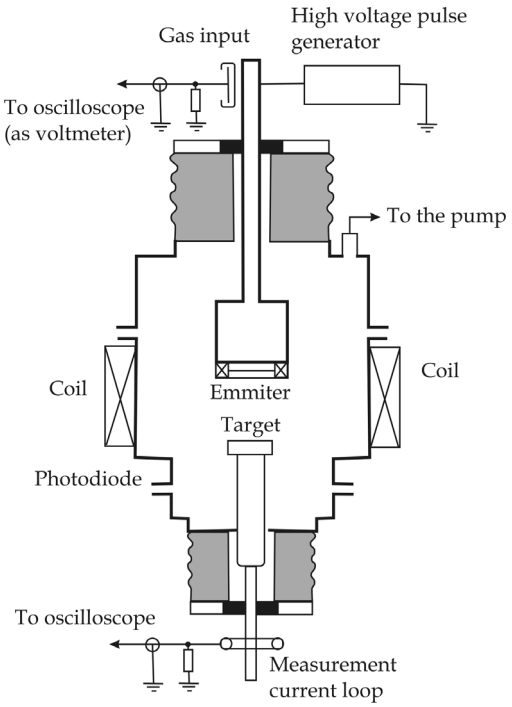


Fig.1

The flash chamber (it was made in Russia), which allows to create low pressure (vacuum) inside it and to fill the volume with any gas, was made of quartz glass. It consisted of 3 parts. It had the shape of cylinder with the diameter of about one meter and its length was of 1,5 m. Two connecting flanges allowed to change the emitter easily. The distance between electrodes could be changed from 0,15 to 0,40 m to find an optimal length.

An external solenoid with the inner diameter of 1,05 m, width of 0,3 m and thickness of 10 cm was placed around the flash chamber and was used to concentrate the discharge on the smaller square of target. The coil of solenoid was coiled round in several layers by cooper wire having the diameter of 0,5 cm and provided the density of magnetic flux of 0,9 T. One more "small" solenoid was placed around the emitter. It allowed the "trapping" of magnetic field inside the superconductor.

Later, when it was found that parameters of Gravitational Impulse appeared with the discharge are proportional (in some extent) to magnetic field, which is created inside the superconductor, then this "small" solenoid was replaced by a powerful constant magnet (NdFeB) with the diameter corresponding to the diameter of emitter and the thickness of 20 mm.

The system of cooling of emitter contained the quantity of liquid nitrogen or helium, which is necessary for long work. The losses of gas because of vaporization in the device were minimized due to high vacuum in the chamber and, thus, better heat insulation.

An accurate measurement of voltage was made by memory oscilloscope connected to the capacitance-type transmitter (see upper part of the Fig. 1). A Rogovsky loop (electrical loop of coaxial cable around the target electrode connected with oscilloscope (see lower part of the Fig. 1)) was used to measure electrical current. A photodiode connected to the oscilloscope and placed in the translucent wall of the chamber served for the measurement of discharge parameters.

Diameter of the emitter is 0,02 m, spark distance between the emitter and the target is adjusted in the limits from 0,15 to 0,40 m. Longitudinal magnetic field of the emitter is about 0,9 T and serves for constriction of electron flow during the charge. Disruption voltage is 2 MegaVolt, current is equal to $10^4$ A, time of discharge lies between $10^{-5}$ and $10^{-4}$ sec.

*The length of pendant of trial pendulum (Fig.2) is from 0,5 to 0,8 m that accordingly defines its own period 1,4192 – 1,7952 sec. Or the frequency of the pendulum is equal in average to 0,6 Hz, which was taken during the estimation of pendulum response on the supposed "Gravitational Impulse". Maximal deviation amplitude of the pendulum is 0,014 m.*

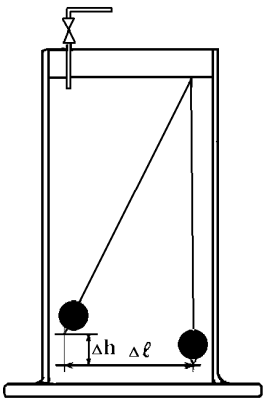


Fig.2

**Supposition: the superconducting emitter and magnetic field trapped into it provides extension in time of the magnetic impulse.** Magnetic impulse is concentrated around discharge plasma of 0,02 m diameter. Extension of the supposed "Gravitational Impulse" in time provides the necessary sensitivity of the pendulum, which according to its frequency characteristic grows by the square of signal period and reaches maximum with the period more than own period of the pendulum.

In our opinion, ***Gravitational impulse becomes excited just by the derivative by time of magnetic impulse,***

which generates electrical voltage $E_{\updownarrow} = \ell \frac{dB_{rot}}{dt}$ in the structure of vacuum. This voltage generates Gravitational Impulse itself $G = 4\pi E_{\sigma} S \cdot (\Delta r_g)^2$, where $\Delta r_g = e_0 \frac{E_{\updownarrow}}{b}$.

***The supposed "Gravitational Impulse" in the experiment by Podkletnov is modeled by a quarter of cosine curve.***

Duration of this curve is determined by the decrease of magnetic field "trapped" into the superconductor due to the partial heating of semi-conductor emitter after plasma passed the discharge of 2MV with the current strength of 10000 A. The formula of the model is the following:

$$X'' = Ae^{-2\pi f_0 D_0 t} \cos(2\pi f_0 \sqrt{1 - D_0^2}\, t) \qquad (1)$$

the calculation is made for the frequencies of 30, 3, 0,3 and 0,03 Hz and acceleration of 12 m/sec$^2$, which appears for the mass of the pendulum 30 g with the force horizontally to gravitation 0,03·12=0,36 N.

It can be supposed that it is necessary to make more careful solution of the problem to find the effect on the pendulum by its reaction, which is known from experiment. We should apply the more correct use of spectral method of solution of differential equation for the pendulum with setting of impulse effect. Further, having the recording of temporal function of magnetic field by Hall-effect devices and using Maxwell formulas, we should find electrical field acting in physical vacuum. This field will give us the force of gravitational impulse.

*The experiment by V. Roshchin and S. Godin is simpler for physical modeling (Editor's note: the author assumes it is simpler than Podkletnov's effect). All input and output parameters are known to the authors, i.e. force of the magnets, frequency of variable magnetic field in the local place of space vacuum, change of gravity. Furthermore, there are known cylindrical formations of magnetic "loops" around the device and their approximate arrangement with the intervals divisible by the half of rotor radius. Effects of temperature decrease at 8° C in cylindrical atmospheric formations can be simply explained by adiabatic decrease of air pressure due to the decrease of gravitation between molecules of air. Formulas for estimation of decrease of gravitational and inertial forces are the same that for Podkletnov's experiment:*

$$E_{\updownarrow} = \ell \frac{dB_{rot}}{dt} \ , \qquad (2)$$

$$G = 4\pi E_{\sigma} S \cdot (\Delta r_g)^2 \text{, where } \Delta r_g = e_0 \frac{E_{\updownarrow}}{b} . \qquad (3)$$

**References**


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# New Sources of Energy from the Point of View of Unitary Quantum Theory


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**Abstract**


The Unitary Quantum Theory (UQT) is a new version of the field quantum theory, which has been developed by the principal author (Prof. L.Sapogin) of this paper for over 25 years. The theory is directly related to the problem of new energy sources, and this paper can be of interest for Journal of New Energy for it is the UQT (and not the classical Newton mechanics or the modern standard quantum mechanics) that provides a theoretical basis for the development of new sources of energy and for the explanation of the operation principles of the existing and functioning over unity devices.


The fundamental provisions of the UQT and a number of results received on the basis of it were published in many scientific journals and reported at international conferences (see [1-6], etc.). Generally, the UQT as expressed by the language of formulae and equations represents a new mathematical model of interaction and movement of elementary particles in the form of a complicated system of non-linear integral-differential equations, an important property of this model principally defines the trajectories and velocities of the particle movement in space (unlike the standard quantum theory, which directly defines only the probabilities of the presence of the particles at a certain point in space). Another, and the most essential (for the problem of new energy sources) property of the UQT is the absence of the energy conservation laws and the