

# On History of Cold Nuclear Fusion in Russia

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On December 25, 1991, the Moscow Council got an official letter from the Moscow Committee on support of the work by Ivan S. Philimonenko (G.V. Kravzov was the chairman of this committee). The letter told about development work made by the scientist, rocket-space techniques designer Ivan S. Philimonenko. This committee expressed its concern about the delay of the development work in spite of their great importance. The author of its work was infringed upon his professional and social rights.

As it follows from the facts presented by the declarant, the development work by Philimonenko concerned the creation of pollution-free energy systems, systems on neutralization of radiation and associated units.

According to the profile of its activity the Subcommission of Moscow Council on ecological problems of industry, energetics and transport studied the given problem in-depth and made a huge work to define the real state of affairs. Together with the Standing commission of Moscow Council on legality, law and order and human rights protection and Standing commission of Moscow Council on science and techniques, the Standing commission on ecological problems of industry, energetics and transport (hereinafter referred to as the Subcommission) made the following:

- studied the publications devoted to the works of Ivan S. Philimonenko published in Russian free press;
- required all necessary information from the corresponding organizations;
- acquainted through its representatives with technological start of this type of works on the corresponding plants;
- contacted with the Supreme Soviet of Russian Federation, RF ministries and departments;
- intimately contacted with the author of the developments and his colleagues;
- took part in a number of meetings, conferences, symposiums of the corresponding subject conducted in Russia, Ukraine and Byelorussia.

As a result of this work the Subcommission stated the following reliable information about the scientist and designer Ivan S. Philimonenko and his development work. In 1960 the Head Space System Designer Sergey P. Korolyov, Marshal Gregory K. Zhukov and Acad. Kurchatov assisted these new developments. Kurchatov thought these works would be of great importance in future and said it to the inventor during their discussions. Marshal Gregory K. Zhukov personally sent a wire to the Kremlin: "Being concerning about the destiny of Russia, I ask to sign this resolution". He mentioned the Resolution of USSR Council of Ministers

and USSR Central Committee of the Communist Party #715/296 of 23.07.1960. A development of new methods to produce energy and protection from the nuclear radiation by I.S. Philimonenko was planned according to the following principles. They are:

- high efficient generation of energy;
- creating of thrust (propulsion) without the reactive mass flow;
- protection from the nuclear radiation.

Approximately 80 organizations were drawn to this research program, for example "Lutch", "Red Star", Research Institute of Heat Processes, corporation "Energy", Russian Academy of Sciences, Ukrainian Academy of Sciences and Byelorussian Academy of Sciences. Ivan S. Philimonenko was appointed as a responsible senior designer of this line. The first outstanding result of this program was the creation of energy systems "Topaz-1" and "Topaz-2", which were used on the satellites "Cosmos-1818" and "Cosmos-1819".

The next step of the program was to develop and create the pollution-free thermoemission hydrolytic energy system (TEHES), which has no analogies in our country and abroad.

The difference of TEHES from "Topaz" is the usage of low temperature nuclear fusion system as fuel element instead of a nuclear reactor. The nuclear fusion system works in low temperatures ( $T=1150^{\circ}\text{C}$ ). Its lifetime will be 5-10 years without refueling (the fuel is heavy water).

In 1960-68 they have got the first positive result, which could be applied for production. In particular, they got power output parameters of the system of 200 Watt, hydrogen and oxygen were generated as well as such components as helium 3, helium 4, tritium, oxygen 16, oxygen 17 and oxygen 18. It was the evidence of the fact that they have got the nuclear fusion with the temperature of  $T=1150^{\circ}\text{C}$ .

The author stated that these systems do not emit any pollutants to the environment during its operation. They consume heavy hydrogen only. TEHES could become a real alternative to the existing faulty energy systems (nuclear power station, heat-electric generating station, hydroelectric power station, boiler-house, diesel, etc.).

Also TEHES could be applied

- in industries, which consume hydrogen (airplanes TU, for example), oxygen (metallurgy);
- to power existing combustion engines instead of liquid fuel;
- in new generation of engines for the water, land and air transport;
- as an autonomous long-term energy systems at home, in the rural areas, in back regions.

As the scientist states, the systems of a special modification, analogous to the above-mentioned

systems, can neutralize radioactivity, for example those emitted to the environment (in Chelyabinsk, Semipalatinsk, Novaya Zemlya, Chernobyl). Systems to neutralize the radioactivity could be placed on the land, air transport, and spacecraft for the corresponding purposes.

In 1968 the official works by Ivan S. Philimonenko were stopped, and the author had no chance to complete his experiments on neutralization of the radiation.

**In 1962 Ivan S. Philimonenko got a patent priority # 717239/38 of 27.07.1962.**

Later he tried to register it as a discovery, but on 30.12.1970 he got an official answer # OTED 1179 about the necessity to revise his application due to the factual multiply of his claims that is not one discovery but several discoveries. That's why he still has no patent for his inventions.

Also his ideas were discussed in free press. Those are: "Tekhnika Molodyogi" #2, 1970, newspapers "Moscow Pravda" of 16.04.1971 and "Socialistic Industry" of 24.04.1971.

The announcement about the cold fusion experiment made by American scientists Stanley Pons and Martin Fleischmann followed the works by Philimonenko. The interest to the cold fusion in Russia increased again. During 1989-90 in NPO "LUTCH" Minatom RF two experimental models of energy system by Philimonenko were produced to recommence the experiments on cold nuclear fusion. Then three thermoemission hydrolytic transformers for the pilot energy system were developed and created. Necessary experimental and design works were made. Preliminary methodical provision on calculation of the systems was made.

The high level of the systems made by Philimonenko is proved by the fact that USA acquired the thermoemission nuclear reactor «Topaz», which was mastered by USSR space industry.

Technical characteristics of TEHES systems, in comparison with the existing nuclear power stations and nuclear energy systems under project ("Tokomak"), showed that the thermoemission nuclear technology has big advantages in front of the fission reactor. However, as we know, the works on realization of nuclear energy systems based on the light nucleus fusion are monopolized by the line oriented on the thermonuclear fusion on the systems of "Tokomak" model. This work has been conducting for 40 years and the Director of Institute of Nuclear Energy E.P. Velikhov considers, that we can expect such results not earlier than the middle of this century.

Now there are a lot of articles about Ivan Philimonenko and his works published in free press. The committees to support the work of the scientist were established in Moscow, other Russian cities, Ukraine and Byelorussia. Foreign scientific and military organizations are

interested in his developments, USA in particular. There were some attempts to repeat the experiments by Philimonenko on cold nuclear fusion (1989). In this case we cannot exclude the drain of information from Russia.

As the author of these developments consider, the further work requires the initial, developmental and resource testings on the existing scientific and experimental base in Moscow

Nowadays there is a problematic environment situation in Moscow and in Russia as a whole. There is a direct relation between the increase of radiation pollution and oncological sickness rate and death rate. In this connection the development work by Philimonenko is of great importance.

The Subcommittee attended to the further worsening of ecological situation. Together with the Moscow committee on support of the works by Philimonenko addressed to various departments and tried to attract their attention to the Philimonenko's developments (1991-1992). This information reached RF President and Government. President gave an order to Russian Academy Of Science (Osipov Yu. S.) and the Ministry of Russian Federation on nuclear energy (Mikhailov V.N.) to prepare the proposals how to continue the works by Philimonenko. But the President of RAS, Acad. Velekhov E.P. announced that these materials do not contain any scientific and technical information, which could be useful to estimate the ideas by Philimonenko.

*There is a question: Who should estimate new ideas? One time more it seems evident that RAS can develop scientific problems only in the framework of existing conceptions and RAS is not ready to support qualitatively new ideas.*

In 1992 the Subcommittee on ecological problems attended the NPO "LUTCH" and had a meeting with scientists and deputy director on production Kleschyov A.M. He and his colleagues proved that they have been working to reconstruct the system (TEHES) under the leadership of Philimonenko. The system itself and design documentation were also demonstrated to the Subcommittee.

The Subcommittee was surprised with the fact that leaders of Russian science had not found any chance to get acquainted with these ideas and their realization. The Subcommittee hopes that in spite of Russian instability the government bodies will find some ways to pay attention to the unique developments made by outstanding scientist.

On the basis of this analysis the Subcommittee made the following conclusions:

- To recognize the works by Philimonenko to be an outstanding achievement in Russian science.
- To give the inventors certificate to Philimonenko on his TEHES "KURS".

- To restore all professional and social rights of the scientist.
- To address the Russian government for the support in further realization of Philimonenko's developments and assign a priority on these developments to Russia.
- To revive the testing works on Philimonenko's TEHES as well as studying and introduction of his developments on protection from the nuclear radiation.

### Short biography

Mr. Ivan S. Philimonenko was born in 1924 in Irkutsky region. In 1941 he went to the front of the Great Patriotic War. From 1941 till 1945 he has been taking part in military operations on the North-West, South-West, 2<sup>nd</sup> Ukrainian and Zabaikilsky fronts of the Great Patriotic War as a scout. He has the Order of Red Banner, medals for the Victory over Germany, for the Victory over Japan and others.

From 1945 till 1951 he has been studying the Technical School named by Bauman and showed himself to be an advanced, disciplined and active student. He had an authority over other students, heads and teachers of the faculty.

From 1951 till 1967 he has been working in OKB-670 (design bureau). He began as a technician-designer and from 1963 he has been working as a senior designer. In 1954 he got an academic degree in nuclear physics.

From 1967 till 1968 he has been working in MKB "Krasnaya zvezda" as a senior designer. The leaders of the bureau honored him for the successful works on creation of new techniques.

In June 1968 he was discharged due to liquidation of the department from the structure of the bureau. Analysis of this situation made by the Subcommission allowed finding out that the liquidation of this department was made due to:

- the conflict between Ivan S. Philimonenko and leaders of the bureau, because he found some breach in technological process in this bureau, which caused the radionucleid pollution of the Moscow surroundings;
- the course of technical policy of this industry was changed by the higher technical leaders. They were oriented on development and creation of systems using the energy of nuclear fission of heavy chemical elements isotope and creation of nuclear power stations and systems of "TOKOMAK» type.

From 1968 till 1989 Ivan S. Philimonenko has been practically unemployed. He tried to address in various departments with a requirement to continue his scientific work and creation of pollution-free thermoemission hydrolytic energy systems and systems for radiation neutralization. But he had no positive results.

In 1989 Ivan S. Philimonenko suddenly got a proposal from the firm NTKO "FORT-INFO" to head the works on his subject as a senior designer. 8 months after he was moved to the firm NPPSO "KURS" due to unknown reasons. He had not got any salary there and then retired. Now he is not working on his subject.

### *Editor's: notes on aging aspect*

Mr. Ivan S. Philimonenko, the author of Russian "cold fusion" research program (1960's) claimed the following: all people have about 1400 years of natural life resource. His calculations are based on the real 7-year cycle of human biological cell life period and the known resource of "cell repair", which is about 200 times. In other words, we are living in permanent biological repair process and activity of this repair depends on environment. So, there are  $200 \times 7 = 1400$  years of resource, if there are no any reasons for repair. The cause for aging according to Philimonenko is the so-called "background radioactivity", which we can see anywhere on the planet. It is produced mainly (about 90%) by potassium isotope K-40. It is a radioactivity element and it periodically emits electrons. Human organism is building during many years from natural chemical elements including K-40 and other isotopes. That's why the electron emitted by isotope permanently damages all biological cells on its way. This is the reason for the accelerated spending of the human biological cell resource.

It is important to know the historical fact: the background radioactivity was created by some accident long time ago, and geologists know, when it occurred. Before it all people have been living for many hundred years according to old books and ancient data.

Radioactivity elements of different kinds are collected inside of each human body with food and air. We are "collectors" of isotopes and there are no easy medical ways to remove it from body. ***But now there are new methods to reduce radioactivity by means of special fields.*** Particularly, a special generator based on the Moebius band elements (designed by Dr. Ivan M. Shakhparonov, published in New Energy Technologies, issue #2, 2001) produces stabilization of isotopes, i.e. decreases the radioactivity, and it was measured in many accurate experiments. Also in August of 1995 Atomic Energy of Canada, Ltd., published in Newsletter of The Planetary Association for Clean Energy a review of modern methods to transform the radioactivity wastes. So called "scalar field" can be used for the distant influence on radioactivity.

In Philimonenko's research work of 1960 the same effect was discovered for the "cold fusion" generator. There are modern experiments on vector magnetic field influence on radioactivity, plasma wave and other methods, which are not a theory but a real working technologies, and it can be used to stabilize isotopes in human body. Why this important work is not known yet? Do people have not any desire to become younger? This question is not of technological nature, but of political one.

School, college, office, pension... Now it is a standard 60-80-year period of life to change the "biological material" during the natural selection process. But let's assume, that this short period is not a law of Nature, but some temporary program for the civilization, which is in the initial state of its development. Really, most people are not ready to make their life sensible and purposeful. Thus, they do not need many hundred years of life. Now we already have the new technologies to reduce radioactivity by means of special fields, and the aging process can be normalized up to 1400 years period. Are you ready to think about it?

Modern economy, politics, finance are not ready for it and all old systems will not work in the conditions of new civilization. But the World should be changed for the better one.