

## SEMINAR ON COLD FUSION AND FIREBALL IN RUDN

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*Abstract.* Information on the seminar of cold transmutation of nuclei, held every month in Moscow at the Peoples' Friendship University of Russia (RUDN University), in Faculty of physical-mathematical and natural sciences since 1992, is provided.

*Keywords:* RUDN university, seminar, low-energy nuclear reactions, cold transmutation of nuclei

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Seminar "Cold fusion and fireball" in RUDN University was arise, in 1992 from FIAN monthly seminar "Low-temperature nuclear fusion" that had existed in the Lebedev Physical Institute of USSR Academy of Sciences since 1989. FIAN seminar was heding under the leadership of Vladimir Alexandrovich Tsarev, Dr Sci Phys&Math, Professor, head of the Department of cosmic radiations and of the Laboratory of elementary particles in the Division of nuclear physics and astrophysics of Lebedev Physics Institute. V.Tsarev is known for his publications on the subject in the Central academic journals (see, eg, [1]). I regularly attended this seminar, and over time our with V.A. Tsarev relationship evolved into friendly (shared research interests - neutrino physics, the proximity of residence, etc.). And V.A. Tsarev, when him it came time to go into a long scientific trip abroad, he was suggested me to organize conduct of his seminar in the RUDN University, helped by a lightweight access to the RUDN and his international status. In addition in our group at the chair of theoretical physics and mechanics, Faculty of physics, mathematics and natural sciences of RUDN University after several years of experimental research, within one of the main scientific directions of faculty - research in the field of interaction of the electromagnetic radiation with matter, particle physics, physics of metals and alloys aimed at creation of energy-saving technologies and environmentally friendly energy, - for the first time managed to observe the neutrons emitted by deuterated ferroelectric in the process of repolarization in an electric field [2], the world's first work on the initiation of nuclear reactions

in ferroelectrics. Moreover, the experiment was reliable reproducible. The experimental successes stimulated our theoretical surveys [3].

V.A. Tsarev seminar continued in RUDN (**Fig. 1**) University. And when V.A. Tsarev returned from Italy, and then from Japan, it became clear that return of seminar in FIAN is impossible due to the sharp opposition to this scientic direction in the Russian Academy of Sciences, where soon was established the Commission on pseudoscience. So the seminar remained in the RUDN University, where it continue to work until now (**Fig. 2**).

After the First Russian conference on cold nuclear fusion in 1993 in Abrau-Dyurso, seminar of RUDN was visited such famous explorers like Jean-Pierre Vigiier, Professor of the Paris University P. and M. Curie, France; Michael McKubre, Director of the Energy research centre of the international Stanford research Institute, USA; Reiko Natoa – senior chemist-researcher at the Centre for catalysis Hokkaido University, Japan.



**Fig. 1.** The building of the RUDN University on Ordzhonikidze Str., 3.



**Fig. 2.** Seminar on cold fusion and fireball in the conference hall of the Faculty of physico-mathematical and natural Sciences, RUDN University.

Academician Baraboshkin A.N., becoming in 1993 the head of the coordination Council of Russian Academy of Sciences on Anomalous nuclear phenomena in condensed matter, approved our Seminar in RUDN as All-Russian.

After the closing of seminar on ball lightning in Lomonosov Moscow State University, its participants together with their supervisor Dr Sci Phys&Math, Professor V.L. Bychkov joined our seminar, which is reflected in its title.

Among the regular participants of the seminar – Rukhadze Henri Amvrosievich, Dr Sci Phys&Math, Professor (Prokhorov GPI RAS, Moscow), Apollonov Viktor Viktorovich, Dr Sci Phys&Math, Professor (Prokhorov GPI RAS, Moscow), Vysotskii Vladimir Ivanovich, Dr Sci Phys&Math, Professor (Shevchenko Kiev National University (Kyiv, Ukraine), Bazhutov Yuri Nikolaevich, PhD Phys&Math (IZMIRAN, SRC EPP "Erzion", Moscow), Parkhomov Alexander Georgievich, PhD Phys&Math (Experimental design laboratory "K.I.T.", Moscow), Goryachev Igor V., Dr Sci Tech, Professor (Moscow), Zatelepin Valery Nikolaevich, PhD Techn (LLC "Inlis", Moscow) Zakharov Pyotr Vasilyevich, PhD Phys&Math (SRC EPP "Erzion", Moscow), Mikhail Ya. Ivanov, Dr Sci Phys&Math, Professor (CIAM, Moscow), Klimov Anatoly Ivanovich, Dr Sci Phys&Math (JIHT RAS, Moscow), Kornilova Alla Aleksandrovna, PhD Phys&Math (M.V. Lomonosov MSU, Moscow), Laptukhov Alexei Ivanovich, PhD Phys&Math, associate Professor (IZMIRAN, Troitsk, Moscow), Rodionov Botis Ustinovich, Dr Sci Phys&Math, Professor (ISMO RAO, Moscow), Rusetsky Alexey Sergeevich, PhD Phys&Math (FIAN, Moscow), Savvateeva Irina Borisovna, PhD Techn (NII NPO "Luch", Podolsk, Moscow region).

In different years the seminar were attended by foreign scientists from the USA, France, Italy, Germany, Belgium, Japan, Korea, China and other countries of Europe, Asia and Africa. Among them were such authors as a pupil and nearest co-worker of Louis de Broglie, President of his Foundation Georges Lochak (France), Fulvio Frizone (Deaptnen of Physics, Catania State University, Italy), Philippe Hatt (European Comission Brussels, Belgium) and Fidel Ndahauo (Univetsity of Rwanda, Kigali, Rwanda) and many others.

In 2014, after the publication of the reports of the European experts on the evaluation of the generator Rossi [4-6] works on the cold nuclear transmutation intensified worldwide. At the seminar of RUDN University are presented results in abnormally excessive heat generation and synthesis of isotopes in a variety of experimental productions. A variety of methods and technologies – a feature of Russian research on cold transmutation of nuclei. In 25 years of existence in the RUDN University of monthly seminar on the cold transmutation of nuclei more than 500 reports were presented and discussed. Ie in spite of the well-known Russian specificity of the existence of researches on cold transmutation of nuclei in the country, this area of nuclear physics was not stood and does not stand still on the spot. There are appropriate technologies in which Russia is the undisputed world leader. Activities of the seminar contributes to expand communications among researchers and raise the level of experiments on cold transmutation of nuclei and to improve theoretical models.

**REFERENCES**

1. Tsarev VA. Low-temperature nuclear fusion. *UFN*, 1990, 160(11):1-53 (in Russ.).
2. Dougar-Jabon VD, Fedorovich GV, Samsonenko NV. Catalitically Induced D-D Fusion in Ferroelectrics. *Brazilian J. of Phys.*, 1997, 27(4):515-521.
3. Samsonenko NV, Tahti DV, Ndahayo F. On the Barut-Vigier Model of the Hydrogen Atom. *Phys. Lett.*, 1996, A220:297-301.
4. Levi G., Foschi E, Höistad B. et al. Indication of anomalous heat energy production in a reactor device. – *arXiv:1305.3913v3* [physics.gen-ph].
5. Levi G, Foschi E, Höistad B. Observation of abundant heat production from a reactor device and of isotopic changes in the fuel. – <http://www.sifferkoll.se/sifferkoll/wp-content/uploads/2014/10/LuganoReportSubmit.pdf>.
6. Parkhomov AG. Report of the international Commission on the testing of high-temperature heat generator Rossi. *ZhFNN*, 2014, 2(6):57-61. – <http://www.unconv-science.org/pdf/6/parkhomov2-ru.pdf>.