Conclusions verification program of nuclear transformation experiments on samples of "PROTON – 21" laboratory. Verification measurements on series of ultrapure samples in different Belgium laboratories.

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Conclusions Verification program

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In the Proton-21 laboratory in Kiev a group of scientists under the leadership of Dr. S. Adamenko has been working on controlled nucleosynthesis in laboratory conditions.

Since November 28, 2006 "Intellect Technologies"LLC, Ukrainian-Belgian enterprise, is verifying experiments conducted by Proton-21 and published in the book "Controlled Nucleosynthesis, breakthroughs in Experiment and Theory", Editors S.V. Adamenko, F. Selleri, A. Van der Merwe, 2007.

A number of experts were attracted to help Proton-21 in the verification process: Prof. Dr. Romain Coussement (an outstanding scientist in nuclear physics, a member of the Belgian Royal Academy of Sciences), Prof. Dr. Rene Van Grieken (acknowledge specialist in the methodology of measurements and instrumental analysis), Dr. Martin Hinoul (expert in promotion and Business of a high tech environment with more than 20 - years of experience, in the past – Science and Technology attaché of Belgium in the US), Dirk Avau (expert in physics of surface analysis and in Business of a high tech environment) (Annex 1), other professors and specialists (see their CVs in Annex 1).

Tasks:

1. To confirm that collective nucleosynthesis reactions take place in laboratory conditions.
2. To define composition of elements and obtain estimation of the quantity of transformed substance as well as repeatability of the experiments.

Between March 2007 and August 2007 series of measurements were done in different laboratories in Germany and Belgium on samples provided by Proton-21 (Annex 3). Report, based on this data, confirmed the existence of nuclear transmutations and was used to respond to an official request of the US Patent Office (Annex 4). Specialists of the "Intellect Technology"LLC have developed the methodology for the further verification using ultrapure materials on the basis of gained experience.

From October 14 to October 17, 2007 an expert team under the leadership of Prof. Dr. Rene Van Grieken has witnessed a specially designed program of verification experiments in ultra clean conditions.

Methodology used for verification:

Experiments were carried out in the "Proton-21" laboratory in Kiev starting from certified ultra pure materials -99.999% Copper - purchased from Good fellow in the UK (see Annex 5 with certificates) using all possible precautions to prevent external contamination – etching with Nitric Acid, cleaning with Ethanol and Aceton as well as using Caprolon containers to avoid inside contamination in the chamber. This procedure yields a controlled and repeatable experiment that could be duplicated in other laboratories in other countries.

The samples that were received by experts include:
-starting material from Goodfellow
-blanks before insertion into the vacuum
-blanks that were in the vacuum chamber but without any treatment
-samples that were treated in the vacuum chamber with the electrical discharge
-all the equipment used in the process (including files)
-the cathodes, anodes and sample holders
-the caprolon container.

The samples were analysed between November 2007 and January 2008 independently in several different laboratories in Belgium (Leuven, Namur, Ghent, Antwerp, Brussels) and Germany (Munster) (Annex 6)on different types of equipment, namely SEM, EDX, AES, TOFSIMS (see Annex 7). Interpretation of spectra has been performed by independent professors and assistant professors (see list in Annex 2).

The sequence of analysis techniques showed consistenly and reproducibly the composition of those new particles on the detection screen containing convincingly the following elements: Ca, Al, Si, K, Cu, Fe, Ti, Na, Zn, N, C, Pr.... the volume of transformed material is estimated to be around 80-150 micrograms, corresponding with 10^17 to 10^18 nuclei (Annex 8).

Methods of in depth analysis of particles, balls, drops on the surface of the accumulation screen with TOFSIMS in the MITAC laboratory in Antwerp show the different variations of these new elements, depending on the depth analysis of particles (Appendix 9). Analysis of the initial material, blanc samples and samples before the shots show systematically the absence of these elements. It can be concluded that these particles with new elements were produced during the experiment. For further reassurance experts also searched for other possible sources of these elements during the process or explanation for its appearance but nonetheless no other possible sources except controlled nucleosynthesis were found. During the "shot" there is a marked upsurge of gamma radiation recorded by DC-200 device and the gallium-arsenide detector which is additional evidence of the presence of nuclear processes. Samples were non radioactive neither before nor after the experiment.

Conclusions

1. Verification using ultrapure materials unambiguously confirms the presence of collective nucleosynthesis nuclear reactions during "Proton-21" experiments. These processes are similar to nucleosynthesis which takes place in astrophysical processes.

2. Amount of transformed substance calculated on the basis of analysis of particles detected on the accumulation screen is within 80-150 micrograms. The composition of the transformed substance systematically contains such elements: Ca, Al, Si, K, Cu, Fe, Ti, Na, Zn, N, C, Pr and other. These date completely coincide with the experimental data of "Proton-21" laboratory.

3. By comparing results of ultrapure series of experiments, results of experiments performed in laboratory "Proton-21" and our preliminary verification experiments we conclude that there is no substantial correlation between amount of transformed substance and purity of the target material.

Studies have clearly demonstrated that nucleosynthesis reactions take place in the experiments of "Proton-21" laboratory. We recommend creating an industrial prototype to apply and use investigated process in the field of energy, electronics, neutralization of nuclear waste and other areas.