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Witness statement about a tritium-producing experiment

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The author has been invited to a demonstration of an upgraded version of the apparatus used in the experiment presented at ICCF24[1] by Ing. Guido Parchi of Prometheon on behalf of the inventor, Mr. Fabrizio Righes, CEO of TERALAB and Solitonix Srl.

The latter performed in front of me the witnessed experiment with the support of Mr. Fernando Rosso, whose company (Arkea sapd) manufactured some of the elements of the apparatus.

A photo recording by the author of the main events is included in this paper, while some video recordings are also available.

On July 25th, 2025, an electrolytic device using ultrapure water was readied into a blue cubic container of around 40cm width.

The reaction chamber (RC), whose interior was not visible as a result of the sensor on it, is said to have a single nickel wire electrode immersed in water. I was told it was supplied with a DC current, with superimposed intense pulses producing solitons through a proprietary technology in order to achieve electrolysis and to exploit the effects mentioned in a paper published in the Journal of Physics Communication[2].

A further triggering input is supplied by a 2mW, 660nm laser and a by a very low power (less than 1mW) radio frequency emitter.

The power consumption of these exciters was not monitored, considering that the averaged power they could deliver was definitely much



Figure 1: The experimental apparatus.

lower than the main power supplied to the wire.

An X100-7 THD sensor, that measures photons in an energy range typical of tritium beta decay, sat right on top of the RC.

Its sensitivity curve is reported below:

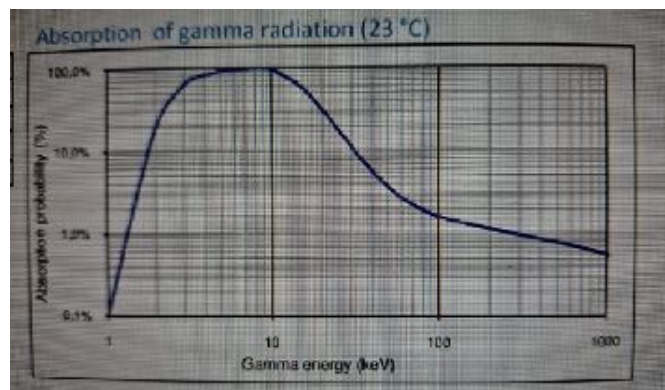


Figure 2: Sensitivity curve of the X100-7 THD measuring system.

A dedicated electronic control system that minimizes noise was used (on the left, consuming around 8W), while a separate one fed the RC apparatus.



Figure 3: The dedicated electronic control system.

The background count was acquired for a few minutes from 17:06 before starting the experiment, showing an average value of about 1.2 count per second (CPS henceforth), with peaks of 2. According to Mr. Righes this was higher than the normal local background since this was the second run on this specific configuration in the day, and small traces of the emissions from the previous run were still present in the air.



The temperature sensors inside and just outside the RC reported a temperature of 22.2°C outside and 22.4°C inside the RC.

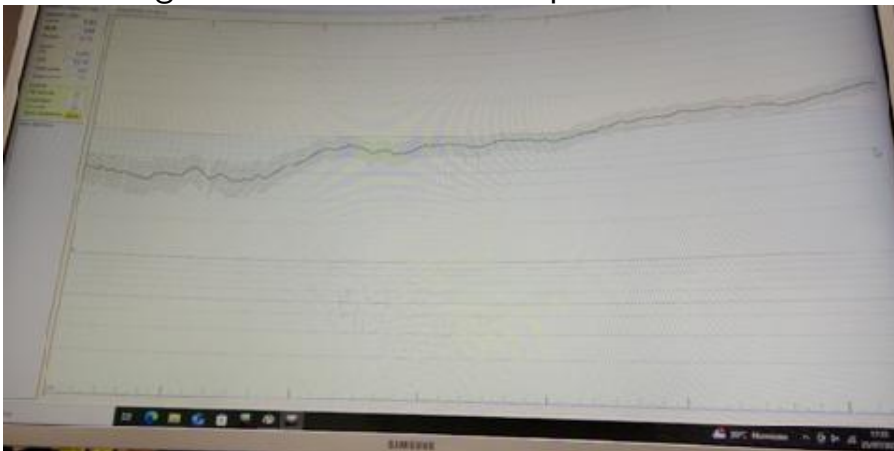
At 17:17 the power supply of the RC was switched on, with 23.67V and 1236mA DC output.

Temperature in the wire started to rise and Mr. Righes initiated the manual adjustment of excitation parameters, leading to CPS increasing over a few minutes, with several oscillations that were controlled with manual feedback.

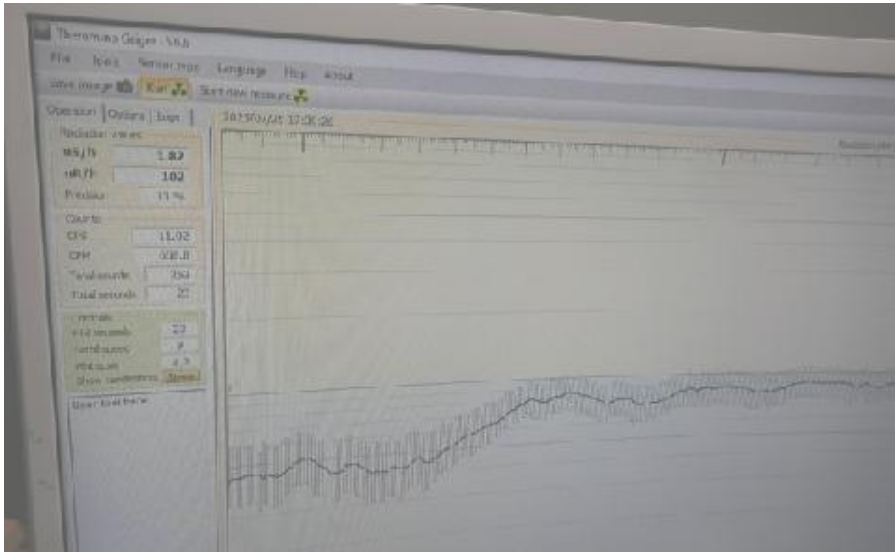


Thanks to this stimulation CPS moved more and more steadily from 3 to 6, with 30.2°C and 34.6°C outside and inside the RC.

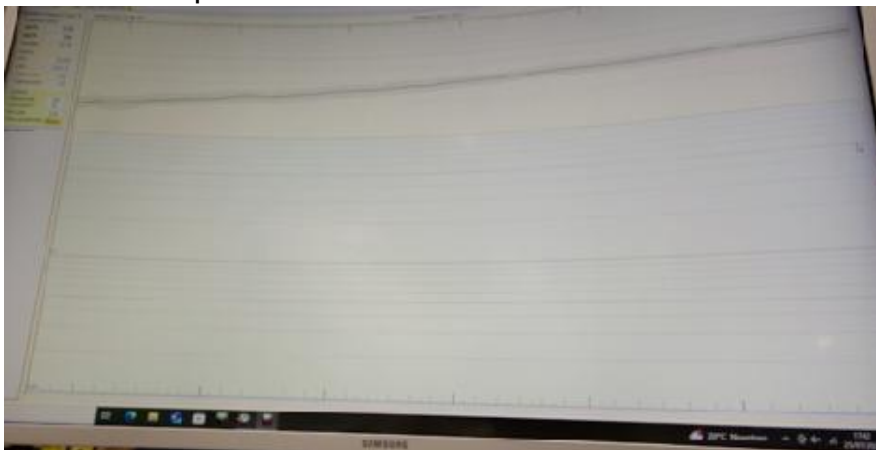
At around 17:32 the CPS started to increase monotonically without any further significant oscillation nor operator intervention.



At 17:36 CPS reached 11, signaling that the intended reaction was sustained.

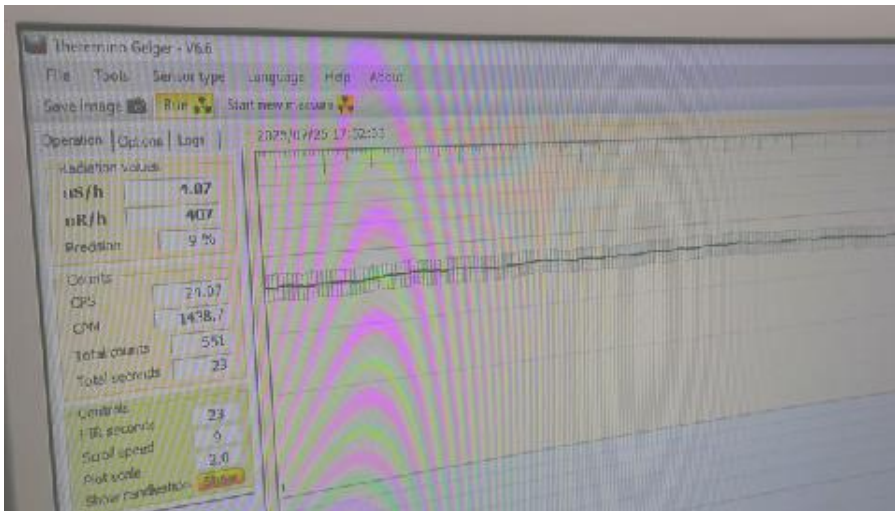


CPS continued to increase; at 17:44 they reached 19, with a temperature of 36.2°C and 39.9°C in the RC, reaching around 23 CPS after 26 minutes of operation with 23V and 1236 mA.

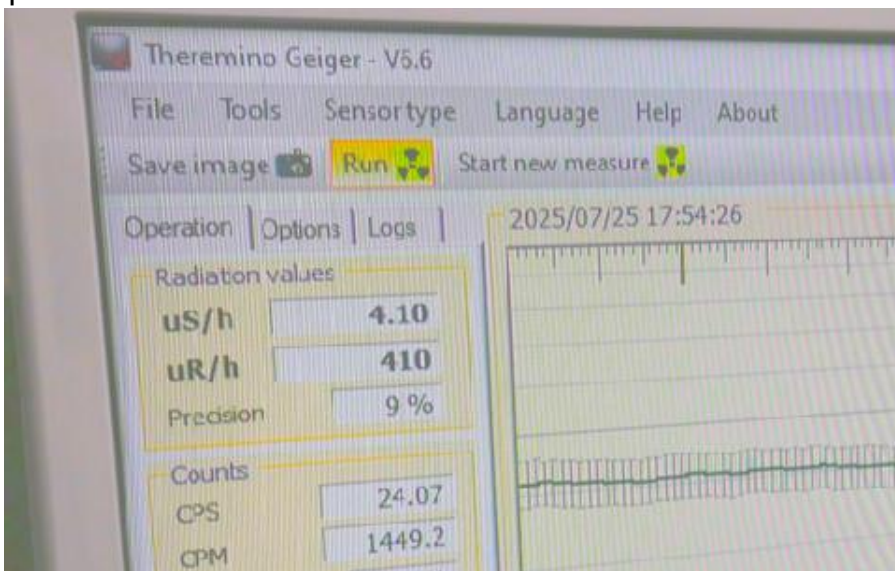


At that point Mr. Righes reduced the input current to 669 mA, around half of the initial one. The CPS slightly dipped by one count for a short time, but later restarted slowly growing to 24, with temperatures also reaching 37.4°C and 43.6°C.

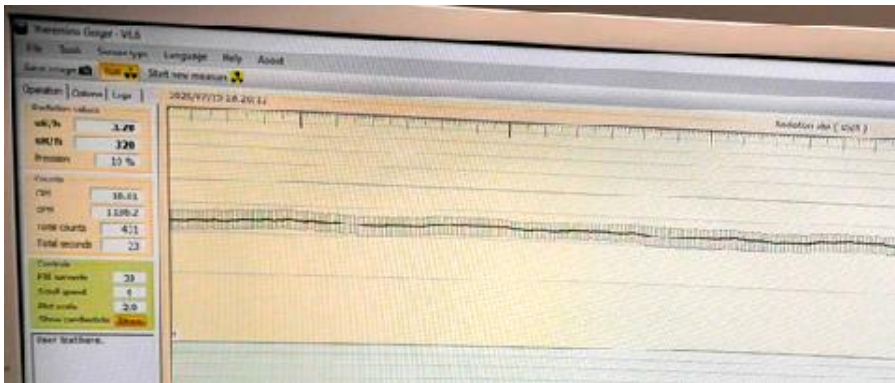
At 17:53 a further input reduction to 369mA was introduced with a similar result, dipping to a minimum of 23.8 and then stabilizing CPS again at around 24.



Finally at 17:55 the power supply was switched off completely and the CPS level remained steady at around 24 over several minutes, with temperatures of 38.4°C and 43.4°C.



CPS then slowly started to taper down, but after 25 minutes they were still at 18.8.



Coming back to the lab 4 hours later they were back to background level. Mr. Righes reports that such “heat after death” phenomenon has been observed in most experiments and in some cases for longer periods, up to 6 days.

A paper about these experiments is being prepared for submission to peer reviewed journals by Mr. Righes and a preprint is already available at researchgate[3].

Discussion

This experiment provides, in the eyes of the witness, a totally incontrovertible and extraordinary proof of the extraordinary claim of having achieved, at ambient temperature and with very low energy input, some type of quantistic or nuclear reaction that deeply alters matter but does not behave in the way expected from known reactions.

In fact whether these are produced by fusion, neutron capture, fission, a combination thereof, or a new phenomenon remains to be seen. Because of this, the witness has proposed at two recent congresses the term LEAP (Low Energy Anomalous Phenomena) in order not to pre-judge in any way the actual root cause (as done by previous names such as Cold Fusion, LENR, CANR, LANR, QHE etc) and focus on the experimentally observed phenomena.

The available instruments did not allow to observe if there were elemental or isotopic metamorphoses in the electrodes, for instance, or to establish an accurate mass or pressure monitoring of the reagents to

understand where exactly the radioactivity (or the tritium, if that's the source) come from.

However the witness believes that it seems proven beyond doubt that:

- This low-power apparatus generates a significant and unexpected increase of radioactivity well above background levels, and that's clearly controllable by the operator.
- The available measurement system seems to confirm that the source of this radioactivity is very likely to be tritium generated in the RC, and no contamination can be invoked to justify its presence since it is extremely scarce on earth and no possible external sources were present, nor would they grow and disappear in the observed way if maliciously introduced.
- The fact that this production continued almost unabated when the power input was progressively reduced and even, for tens of minutes, after any energy input was shut down, seems to be evidence of the presence of some type of subcritical chain reaction or similar self-sustaining reaction.
- No radioactivity other than from the supposed tritium is visible, including after the end of "heat after death" period.

Moreover, several of the above mentioned circumstances has been confirmed by independent laboratories (see attached documents):

- The fact that tritium is indeed produced has been confirmed by two independent analyses, one of which by ENEA, the Italian National Alternative Energy research center.
- The whole experiment was repeated (with previous versions of the reactor) in two external labs, confirming the results I witnessed and whose more complete instrumentation with neutron and gamma monitoring confirmed the fact that there were no other high energy emissions.

As mentioned, all the above constitute, to the untrained eyes of the witness, the type of extraordinary proof needed to accept once and for all the extraordinary claims made over decades by LEAP researchers all over the world.

These data and conclusions have been discussed with some more physics-trained people and none raised any objections about the methodology or the results.

Open Invitation for Scrutiny

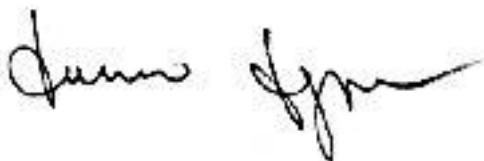
In case any alternative explanations that escaped us were to be proposed after reading this report, either:

- justifying in other ways the production of tritium or of any other radioactive element consistent with the increased CPS,
- or justifying errors in the measurement thereof,
- or justifying the continuation of these effects after power input is stopped,

Mr. Righes confirmed to me that he is available for the proposer of such alternative explanation to bring any additional measurement instrument in his lab, under appropriate confidentiality arrangements, to verify or falsify the proposed alternative hypothesis.

Mr. Righes is also available to bring his apparatus to an external lab to repeat the experiment with other appropriate measurement instruments.

In faith,
Maurizio Maggiore

A handwritten signature in black ink, appearing to read 'Maurizio Maggiore', written in a cursive style.

References

- [1] <https://www.lenr-forum.com/attachment/21741-iccf24-t-production-in-a-pulsed-electrolytic-cell-v09-pdf/> (document)

<https://lenr-canr.org/acrobat/RighesFevidenceof.pdf>
- [2] <https://iopscience.iop.org/article/10.1088/2399-6528/ac809c/pdf> (document)
- [3] https://www.researchgate.net/publication/395452383_Evidence_of_reproducible_tritium_production_in_a_pulsed_light-water_electrolytic_cell (document)