

冷非核聚变和无燃料微波 (脉冲) 功率  
**COLD NON-NUCLEAR FUSION AND FUEL-FREE MICROWAVE  
(PULSE) POWER**

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抽象。从以太动力学的角度来看, 这个问题提出了一个全新的答案: 在所谓的今天的低能核反应 (LENR) 中, 多余的热量来自何处。为了解释加热效应, 对磁控管 (MW) 的微波电磁辐射给出了新的解释 - 这些是强大的电磁脉冲 (PEMP)。从协同学的角度提出了一种用于核素转换 (冷核嬗变) 的机制。EmDrive电磁电机与无燃料发电机相结合, 为其供电。提出术语“冷核聚变 (CNF)”以指示来自基本粒子的化学元素的自组装。给出了CNF类型的分类。展示了地球物理学与历史和考古学中“古接触”假设的联系。

关键词: LENR, 微波能量, 笛卡尔以太, 电磁谐振器, 巨石, 稀土金属, 采矿。

**Abstract.** From the standpoint of ether dynamics, a fundamentally new answer to the question is proposed: where does the excess heat come from during the so-called today low-energy nuclear reactions (LENR). To explain the heating effect, a new interpretation is given to microwave electromagnetic radiation from a magnetron (MW) - these are powerful electromagnetic pulses (PEMP). A mechanism is proposed for the transformation of nuclides (cold nuclear transmutation) from the point of view of synergetics. The EmDrive electromagnetic motor is developed combined with a fuel-free generator to power it. The term "cold nuclear fusion (CNF)" is proposed to designate the self-assembly of chemical elements from elementary particles. The classification of types of CNF is given. The connection of geophysics with the hypothesis of "paleocontact" in history and archeology is shown.

**Keywords:** LENR, microwave energy, Descartes ether, electromagnetic resonators, megaliths, rare earth metals, mining.

**Issue Status.** An interdisciplinary approach allowed the authors to establish a connection - to combine, at first glance, incompatible, scientific disciplines: physics, mining (rock mechanics), history and archeology.

For more than 30 years, physicists have been arguing: is there cold nuclear fusion (CNF) or not. On the one hand, according to physical theory, CNF cannot occur at low temperatures, since it is necessary to overcome the Coulomb barrier. In this case, hard ionizing radiation should be observed, but it is not. On the other hand, the evolution of excess heat during electrolysis has been experimentally proved (the Fleischmann-Pons effect). And also, if metal hydrides are heated, then at a certain temperature they begin to produce excess heat. That is, in both cases during mechanical action on the hydride (thermal stress due to heterogeneity is also a mechanical effect). When comparing “fuel” and “ash”, mass spectral analysis shows a change in the isotopic composition and the appearance of new chemical elements. From the point of view of physics, this is evidence of nuclear reactions, which cannot occur from the point of view of the physics. This article should put an end to this debate.

For more than 100 years in mining, the problem of dynamic and gas-dynamic phenomena (rock blows and sudden emissions of coal, rock and gas) has not been resolved when developing a gas-tight rock mass at great depths. Practical experiment shows that two or more pressure gauge wells drilled in close proximity to the same coal seam never show the same gas pressure. Theoretically, “connected” vessels are practically not connected. Consequently, the coal seam is impervious to gas, and even more so to liquid. At the same time, gas and water are released into the mine workings (miners walk in boots).

Official history and archeology mistakenly date pyramids, dolmens, menhirs, seids and other stone buildings on Earth, for example, fortresses, castles, palaces, temples, etc. time when they were rebuild. The fact that they were not designed for people and not built by people, is indicated by the weight of megaliths and traces of machine processing not available for modern civilization, as well as windows in the ground, doors in windows, lack of heating, lack of waterproofing of the foundation, and other inconsistencies. In this case, in mostly, the schematics (project documentation) are absent. Therefore, it is not known who built them, and most importantly, for what purpose. According to alternative researchers, the Earth is a former alien mine. Rare-earth and dispersed chemical elements, mainly metals (REM), are therefore called rare-earth because they are practically no longer on our planet (all were extracted by aliens). They are not really needed by modern civilization (microelectronics and permanent magnets), but in the future we will not do without refractory alloys. REM extraction in space is impossible without new energy and means of transportation based on it.

***A single mechanism of cold non-nuclear fusion and ball lightning.*** This year marks 30 years after the conference of Martin Fleischman and Stanley Pons, at which they first announced CNF. During this time, Shestopalov A.V. formed the notion that CNF can be different [1].

***1st type.*** The Fleischmann-Pons effect (conventional non-plasma electrolysis), Andrea Rossi's E-Cat and cold nuclear transmutation (CTN) at nanosecond high-power electromagnetic pulses (PEMP), possibly even when irradiated with a laser, when the deactivation rate increases. All this is a "cave" region of energies that has not been previously investigated. It is known that chemists have electron-volt units, physicists have mega-, gig-electron-volts, and nobody has a kilo. In order not to excite Orthodox physicists, you need to come up with the correct name for the phenomenon. The most acceptable term today, according to the Russian Foundation for Basic Research, is "low threshold (cold) transformation of nuclides". The previously used term "cold nuclear transmutation" (CTN) fits into this framework.

According to Shestopalov A.V. the CTN mechanism, hereinafter, can be explained by the collective behavior of nucleons (non-destructive recombination mechanism of the "folds on a carpet" type). To do this, you need to mentally imagine that the nuclei of atoms do not consist of nucleons, but of the nuclei of other atoms. It is precisely on the boundaries of the "nuclei of other atoms" that a low-energy transformation (separation or attachment without breaking the old bond) with kilo-electron-volt energies occurs. The "impact" of an electromagnetic (EM) wave falls not on the Coulomb barrier, but on the boundary between the "nuclei of other atoms", for example, helium nuclei (alpha particles). Such a model of the nucleus makes it possible to involve resonance phenomena (photosynthesis by V.A. Atsyukovsky), which are not considered in this article because of the volume limitation.

We consider only metal-hydrogen non-nuclear (recombination) "reactions". As applied to hydrogenated carbon (hydride), such reactions were previously called in geomechanics "non-destructive transport", "wave of properties", "ultra-fast decomposition reactions in solids under pressure". Based on this principle, Andrea Rossi used the "cold" and "hot" E-Cat Low and E-Cat Hot catalysts (Fig. 1). The chemical composition of E-Cat Hot fuel was solved by AG Parkhomov. In 2014 and, unlike secretive A. Rossi, he told everyone and published everything, after which in 2015 there was a boom of rip-offs all over the world.



*Fig. 1. Evolution of A. Rossi from nickel-hydrogen reactors to ball lightning*

**2nd type.** This is a “transmutation” in biological systems, for example: microbes turn radioactive strontium into stable barium, chicken from silicon produces calcium for the shell of its eggs, etc. (first disassembly then assembly), which are not considered here due to the limited volume of the article. For those interested, there are publications by A. Kornilova and Vysotsky V.I., as well as earlier other authors.

**3rd type** (only in the works of Shestopalov). This is not the restructuring of one set of chemical elements and isotopes into another set. This is self-assembly of atoms and molecules from elementary particles, as if from scratch. This happens as crystals grow or A. Y. Kushelev collects protein molecules (only assembly without disassembly). It is not considered in detail here, since this is still a hypothesis, and an attempt to prove it, using carbon methane as an example, has been published more than 100 times [1].

**4th type.** These, according to Shestopalov A.V., are a plasma electrolysis and accidents at type 1 reactors: the appearance (spontaneous generation) of pulses of electromagnetic (EM) radiation, traditionally called “super high frequency” (MW), but in fact pulses with a steep wave front. According to Zatelepin V.N. and Baranova D.S. in a metal-hydrogen reactor, excess heat is obtained from the outlet due to unaccounted for high-frequency pulses of electricity caused by a self-oscillating process [2]. According to Shestopalov A.V., the oscilloscope registers pulses of consumed electric power not from the network, but from the ether. The spontaneous generation of EM pulses in the reactor can be achieved by the experimenter by slow heating and maintained by electronic automation in a quasi-stationary mode for a long time. But if an inverse positive connection appears in the system, then an exacerbation regime will come - resonant ignition (formation) of ball lightning, which melts (burns) the walls of the reactor vessel. Metal-hydrogen cold non-nuclear fusion turned out to be ball lightning. Ball lightning is a self-sustaining MW discharge consisting of PEMP. Frequency, wavelength and, especially temperature, have no physical meaning for a pulse. It is PEMP that carry out the cold transmutation of the nuclei of some chemical elements into others, due to the gradient (steepness of the front) of the flow of mechanical energy (“impact”).

**5th type.** This is ball lightning as a broadband self-sustaining MW discharge (uncontrolled analogue of the Kushelev resonator): E-Cat QX and E-Cat SK industrial design Andrea Rossi (see Fig. 1), plasma electrolysis Kanareva F.M., Energoniva Vachaeva- Ivanova, experiments Godina S.M. Several modes of ball lightning are possible: 1) “metallurgical” mode of A.Vachaev (operating time of metal powders); 2) “energy” mode A.Vachaev with self-recording (220-380V 50Hz without converter); 3) A.Rossi mode (E-Cat SK) if disconnected from the outlet, the BL will go out. After heating the metal hydride to a critical temperature,

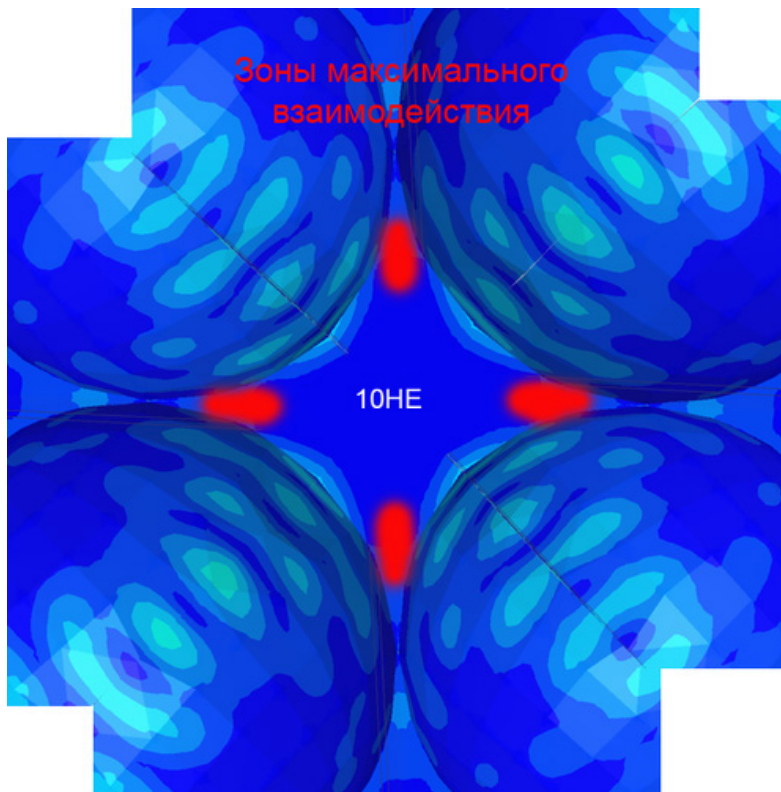
spontaneous PEMP begin to be generated. The first in the world, self-generation of electromagnetic radiation was discovered by Zatelepin V.N. and Baranov D.S. back in 2017. They do not seem to realize that interacting with the ether, they locally excite “bounce” in the “Maxwell gears” and light up ball lightning (BL) in hydride. In this case, “fuel” must be supplied to the BL plasmoid and the “ash” removed, for example, in the "Energoniva" installation there was running water [3]. At the same time, excess electricity was removed by the inductor, thereby protecting the reactor from melting.

**6th type.** These are dielectric resonators of Kusheleva A.Yu. Moreover, if the resonator is made of ruby balls, then excess electromagnetic energy is highlighted, thereby protecting the resonator from destruction. It is known that one cubic meter of the structure of the nanoworld (ether) contains 96 orders of magnitude more energy than a cubic meter of nuclear fuel. There are other estimates, but in any case, it is monstrous energy that can be taken from the structure of the nanoworld using an electromagnetic resonator of a special shape and a high-quality factor (theoretically, the quality factor should be more than 150,000). It was experimentally confirmed [4] that the entire class of ritual objects (tridents of the ancient gods, swastika, various kinds of crowns, etc.) are actually resonators unknown to official science. Their quality factor is limited only by the accuracy of the manufacture of the frame and the quality of the materials, and, therefore, is theoretically unlimited. These resonators can be made of both metal and non-conductor. The most effective are dielectric resonators (special classes of polyhedra, in particular the diamond form, etc.).

The hypothesis that the Christian cross can serve as a microwave engine (Em-Drive), capable of moving without a jet stream in air and space, has been experimentally confirmed [5]. The mechanism for creating traction is the same as that of fish. The conduction current in the conductor or the bias current in the dielectric acts on the ether in the same way as a fish acts on water (repelled from the environment).

Ruby, basalt, quartzite (both natural and artificial), as well as brick, etc., are dielectrics. Ideally, a material with a specific refractive index and dielectric loss (thermal). With the help of such material (whole or composed of elements) it is possible to organize (direct, focus) electromagnetic waves. Two key conditions must be met in an energy source: 1) sound resonance; 2) a superposition of electromagnetic fields. Resonance allows you to get strong electromagnetic fields. In the 2011 experiment in Dubna, an electric field was obtained at which YAG (yttrium-aluminum garnet) or ruby, i.e. about 107 V/m. Thus, in the 2011 experiment (and in subsequent experiments (Saratov-2017, Moscow-2019)), one condition was met - a strong EM field was obtained in a high-Q resonator.

Now it remains to add a second condition - a superposition of fields. To do this, you need to excite not a single ruby ball, but a group consisting of 3-5 identical ruby balls. In the interval between the balls, a superposition of strong electromagnetic fields will be created (Fig. 2).



**Fig. 2.** The result of the simulation in the program HFSS

The Nanomir Laboratory does not have permanent funding, and conducts research on donations from patrons and sponsor money. At the moment, there are no neither one nor the other, so it is not yet known when the superposition of strong electromagnetic fields will be created.

**Antediluvian stone buildings on Earth** prove the hypothesis described above that we live in an ocean of electrical energy. The most mysterious buildings are megaliths, the size of stone blocks exceeds the capabilities of modern lifting equipment. The most famous megaliths - the pyramids in Egypt, the city of Machu Picchu in Peru, the Baalbek temple complex in



Lebanon, the Wailing Wall in Israel - we studied on the Internet. We managed to visit dolmens on the Black Sea coast of the Caucasus, a half-monolith in the village of Prigorodny near Tuapse, and a monolith in the village of Volkonka near Lazarevsky, although at different times. Fabrice Davide, a scientist from France, took part in the study of Pshad dolmens near the village of Krinitza near Gelendzhik. In France, there are about the same number of dolmens as in the Caucasus, and we exchange results of analyzes of spring water and information with him.

To explore the antediluvian stone buildings there is no need to travel far or fly. In every big city you can find houses with pits (windows halfway into the earth) and other objects for studying alien magnetrons. Who and why built temples and train stations that are not like temples and train stations? When designing and building, they forgot to make stairs to the bell tower, stove heating, thermal vestibules, isolation of walls from groundwater, etc.? People don't build like that, they could find ready-made buildings and adapt them for their needs. Why are there so many churches in one place or a huge temple-skyscraper in the steppe where almost no one lives? And all because the temples were not built for peoples prayers!

All the ancient stone buildings on the earth are brick. People could not build so many brick factories, and most importantly roads, not to mention delivery vehicles. Most likely, the "brick" buildings named above were made by alien robots (3D printers) and burned with an MW-field. They built magnetrons in the form of cities with streets and houses. Therefore, "colonial" architecture is the standard for the whole world, incl. for countries that have never been a colony. Artists ruinists (15-18 century) painted their paintings from nature, i.e. then, when people had not yet had time to rebuild the magnetrons into houses and palaces.

Aliens built "houses" (magnetrons) to evaporate spring water for the extraction of rare-earth metals. Fortress towers could be water-pressure earlier, and fortress walls were aqueducts. In addition to the ground part, evaporation complexes always also have underground ones - tunnels for discharging water into rivers. All megacities are located on tectonic faults (places where spring water flowed out). Therefore, under almost every "city" there are catacombs, and in the basements of old houses there are "brick" ceilings, and even some Moscow metro stations have brick arches. Earthen ramparts sometimes connected "cities" (magnetrons), which reduced the cost and speed of the construction of the first railways for people who found these ramparts. It seems that people chose a building from the found magnetrons for the future station, and then they pulled a track to it. Most stations are similar to each other and all initially did not have warm vestibules. The list of illogicalities of stone buildings can be continued, but listing is no longer possible within of this article.



Antediluvian stone buildings on Earth indirectly prove that ether is the source of electric energy for ball lightning, and PEMP's carry out cold non-nuclear fusion (LENR). Aliens as well as humans should have been preoccupied with mining. All the last wars on Earth were due to oil, now they are due to gas, the next ones will be due to rare earth metals (REM), which are practically absent on Earth (all were extracted by aliens).

### **Conclusions**

1. There is no cold fusion. There is transmutation (a change in the chemical and isotopic composition), but without heat. There is excess heat in the metal-hydrogen reactors, but not from the outlet (from the network), but from the ether. The synergistic transmutation mechanism (recombination type of movement of the folds on the carpet): the collective behavior of nucleons under the action of a flow of mechanical energy (thermal stresses when heated).

2. Cold nuclear fusion should be understood as self-assembly of elementary particles from ether, atoms from elementary particles, molecules from atoms and further to supramolecules. This is possible only at a stress concentrator, which is an ether sink. For example, at the tip of a growing crack, microdefect, dislocation, etc. The mechanism is similar to crystal growth and self-assembly of proteins.

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