

CENTRIFUGE CONTROLLED EFFICIENT HYDROGEN FUSION

by

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ABSTRACT

Centrifuge controlled efficient hydrogen fusion was conceived on the basis of the gravitational experiments with the triangularly formed needles made of wood or any non-ferromagnetic material and pivoted to rotate freely in the horizontal plane in the Earth's gravitational field. These needles assume after some oscillations the N-S direction identical to the N-S direction of ordinary magnetic compasses. Those experiments were envisaged from the unified field theory of gravitation and electromagnetism of this author presented on the Internet Site <http://jovandjuric.tripod.com> and announced in the Fifth Award winning paper in the 1963 competition of the Gravity Research Foundation.. These experiments prove that gravitation and conventional magnetism represent a unique entity, which fact is essential for the gravitational efficient control of hydrogen fusion, which can be achieved by the application of acceleration of about 250 ms^{-2} produced by a suitably sophisticated centrifuge.

INTRODUCTION

The research for the efficient fusion of hydrogen in order to obtain abundant clean and relatively cheap energy has been going on in many physical laboratories throughout the world for over 60 years, but unfortunately no progress in that direction has been reported so far, excluding the terrifyingly efficient destruction capability of the hydrogen bomb based on hydrogen fusion constructed and experimentally tried about 60 years ago.

It appears that the research so far for the efficient fusion of hydrogen has reached the blind alley, with more energy consumed to produce hydrogen fusion than the energy obtained by that hydrogen fusion,

SOME FACTS OF PREVIOUS RESEARCH

This author has proposed in his very short paper [1] (v. References) entitled "Gravitation and Electromagnetism" the unified field theory of gravitation and electromagnetism based on the symmetrical Maxwell equations, thus including logically the classical Newton's theory of gravitation with electromagnetism, which obviously completes classical physics. That paper was awarded the 5th Award in the 1963 competition of the essays on gravitation of the Gravity Research Foundation.

On the basis of that unified field theory, the gravitational experiments were conceived and performed many times with the triangularly formed needles made of various non-ferromagnetic materials such as wood, brass, etc. and pivoted on a very sharp axle to rotate freely in the horizontal plane in the Earth's gravitational field. The details of those experiments are described and reported in [2]. It must be repeated here that those needles assume after some very slow oscillations the N-S direction identical to the N-S direction of ordinary magnetic compasses. Actually, the results of those experiments

prove that the intrinsic mass moment of a mass distribution is in fact the conventional magnetic moment with a suitable constant of proportionality. **This leads to the possibility of the entirely new modeling of the elementary particles and the atoms.**

That also leads to the new theory of the origin of the Earth's magnetic field and of the conventional magnetic fields of all other celestial bodies as the gravitational interaction between the intrinsic mass moments of the Earth (or any other celestial body) and of the pivoted needle, v. [3]. The intrinsic mass moment of a mass distribution is defined and calculated with respect to the center of self gravitation of that mass distribution, at which center the self gravitational field of that observed mass distribution is equal to zero.

Further, the results of those gravitational experiments indicate quite clearly, that all mass distributions regardless of their sizes, and including the elementary particles, must be defined by the two points, i.e., the center of self gravitation and the center of mass, which centers never coincide for any mass distribution in nature due to the inevitable presence of other masses and fields, but coincide only in the case of the strictly theoretically assumed absolute symmetry of the single (i.e., theoretically all alone in the universe) mass distribution. These experimental results suggest and prove that the strong interaction is essentially gravitational, and that the gravitational methods must be taken into account and used to control all atomic interactions, including the fusion of hydrogen among others. To repeat and emphasize once more, those experimental results do prove that the strong interaction is a gravitational effect, v. [4].

PROBLEM OF HYDROGEN FUSION

It is quite clear that gravitation and gravitational methods and equipments were absolutely ignored in the research for the efficient hydrogen fusion up to this present moment. So, it is concluded, that the obligatory inclusion of the gravitational methods and equipments is what is essential and necessary in that research.

This author has definite ideas, which must be tried experimentally. Namely, it is observed that the hydrogen fusion is going on spontaneously on the surface of the Sun, and it is apparently that energy that creates and sustains life on our Earth. According to the Newton's law of gravitation, the gravitation strength on the surface of the Sun is about 250 ms^{-2} . The enormous mass of our Sun as well as of any star is essential to create the very strong gravitational field, which appears to enable and to sustain the strong interaction between the intrinsic mass moments of the hydrogen atoms leading to their fusion into the helium atoms with the release of the enormous heat energy. It is this acceleration, which was absent in all experiments so far in the research for the efficient hydrogen fusion, but which, to repeat once more, is essential besides the very high temperature to enable the intrinsic mass moments of the hydrogen atoms to begin the strong interactions leading to fusion. The very high temperature is certainly the outcome of the hydrogen fusion, but it is not clear whether it is necessary for the fusion to begin, and that must be resolved experimentally. The applied magnetic fields in all those experiments so far were very much weaker than necessary to be able to produce the

necessary acceleration of about 250 ms^{-2} , but consuming too much energy and producing inefficient hydrogen fusion. This obligatory acceleration may be introduced efficiently **only** by using the appropriately sophisticated centrifuge, to announce it here for the first time for anybody who is interested to try this new idea. This author has clear ideas how to do it, and is interested to get the chance, i.e. money, to carry out those experiments.

After the expenditure of untold billions of dollars in this research during the past over 60 years, and having in mind the importance of the necessary energy supply for the entire rapidly growing humanity, and that the petroleum energy supply is reaching its end apparently and inevitably, it would be extraordinarily very strange indeed not to spend some additional millions of dollars to try this completely novel idea of the gravitational control for the efficient hydrogen fusion..

CONCLUSION

Gravitation is undoubtedly the most important force in nature, without which, life, as we know it, would be impossible. So, it is strange that gravitation, actually acceleration by definition, is usually ignored to be taken into account explicitly in practically most physical experiments. But, of course, the inevitable gravitational pulls on various objects and parts in all those experiments must be and are strictly balanced by the appropriate contact forces apparently without any further concern about gravitation.

Since the interactions between the neutral atomic particles must be gravitational according to the experimental results of the author, **which results form the basis of the entirely new modeling of the elementary particles and the atoms**, so, it is absolutely essential to take gravitation explicitly into account by the appropriate gravitational methods and equipments, but the details are not described here, which details can be rather easily imagined.

The scientific ideas of this author form the logical completion of classical physics, and they are available on his Internet Site <http://jovandjuric.tripod.com>

But the scientific journals refused so far to publish papers of this author, and even his experimental results,, probably because those results, particularly the experimental results, make some of the presently “accepted” physical theories, including some Nobel prizes in physics, invalid, absurd and totally unnecessary. This author takes this opportunity to invite the international scientific community, particularly the Royal Swedish Academy of Sciences and its Nobel Committee and all other scientific institutions and journals of the world, to arrange for the public discussions of all the issues exposed in this paper in the scientific journals or any other communication medium, if they are really interested in search for scientific truth and progress of science.

The present research for the efficient hydrogen fusion after over 60 years has undoubtedly reached the blind alley. So, for the sake of the potential solution of the growing hunger for energy of the rapidly increasing number of the human beings,

this author is convinced that the ideas for the gravitational control of the efficient hydrogen fusion must be tried experimentally. After the expenditure of the untold billions of dollars for this research so far, some additional money should be spent by all means to try the completely novel idea presented in this paper.

In conclusion it should be mentioned, that if and when the above suggested procedure for the efficient hydrogen fusion is perfected, then this procedure can be used for the construction of the clean, radiation free hydrogen bombs of various sizes and potencies, thus eliminating the nuclear-fission unit-bomb, which is the essential trigger for the hydrogen fusion in the original hydrogen bomb, and, consequently, totally eliminating its possibly very harmful radiation. Such clean hydrogen bombs, besides their original purpose of the enemy destruction during the war, can be useful for various constructions of tunnels, dams, etc.

REFERENCES

1. Djuric, J., Gravitation and Electromagnetism, Fifth Award winning essay in the 1963 competition of essays on gravitation of the Gravity Research Foundation, New Boston, New Hampshire, USA (Present address: Wellesley Hills, Massachusetts, USA)
2. Djuric, J., Gravitational Experiment, available in the pdf format on the Internet Site <http://jovandjuric.tripod.com>
3. Djuric, J., New Theory of the Earth's Magnetic Field, available in the pdf format on the Internet Site <http://jovandjuric.tripod.com>
4. Djuric, J., Strong Interaction as Gravitational Effect, available in the pdf format on the Internet Site <http://jovandjuric.tripod.com>