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# DOE FUNDS LOW-ENERGY NUCLEAR REACTION LAB

We commend the DOE for awarding funds to the University of Illinois (Champaign-Urbana) to establish a research facility for the further study of low-energy nuclear reactions. It has been one of the concepts of nuclear physics that only highenergy means can be used to produce nuclear reactions. This concept is well established in the field of plasma-based nuclear physics. Thousands of experiments, using high-energy particle accelerators, have provided thousands of printed reports detailing experimental results using various bombardment particles and various target materials. In addition, there are a great number of papers on the transmutation results of both natural and man-made elements produced by nuclear fission of uranium (and a few other Because of the wide-spread elements). knowledge of such experiments and the sparsity of information on nuclear reactions produced by low-energy means, it is quite natural that nuclear scientists would not readily accept dramatic new discoveries of low-energy nuclear reactions.

It is proper that the burden of demonstrating new science be placed upon those who are developing (or have discovered) new scientific principles. This process has taken some time. The first conference on low-energy nuclear reactions was organized by Professor John O'M. Bockris and held at Texas A&M campus. [The proceedings were published in volume 1, number 1 of the *Journal of New Energy*, January 1996 (Conference date was June 19, 1995).] The second conference on low-energy nuclear reactions was again organized by Professor Bockris and held September 13-14, 1996, in a College Station motel next to the Texas A&M campus. The proceedings were published as

volume 1, number 3 of the *Journal of New Energy*. 23 papers were presented, 19 of which were published. Professor George H. Miley presented a paper by him and Dr. James A. Patterson, "Nuclear Transmutations in Thin-Film Nickel Coatings Undergoing Electrolysis."

A session for Low-Energy Nuclear Reactions was organized by Professor Miley for the annual meeting of the American Nuclear Society (Nashville, Tennessee, June 7-11, 1998). Professor Miley presented a paper (as did about 15 others) and chaired one of the sessions. Several of the papers presented have been published in the *Journal of New Energy*. [Note: All of the issues of the *Journal of New Energy* that have been published prior to June 1999 are now available on a CD\ROM as published by Fusion Information Center. Ed.]

The conclusions are the following: It is not an easy task to get new science accepted, especially if the new discoveries appear to be in conflict with current scientific understanding. However, the process is understood and involves experimental results, preparation of papers, peer-review and publication of papers. Of course, this process is aided by suitable briefings provided to selected professional persons who are in a position to understand and to help fund such new scientific findings.

It is appropriate that Professor George Miley be the principal investigator and the recipient of the first DOE grant for the further study of Low-Energy Nuclear Reactions. Professor Miley has used his position as editor of *Fusion Technology* to further the progress of low-energy nuclear

reactions in such a professional manner that he has not built up any resentment. He has been professional, he has designed and performed good experiments, he has presented unemotional technical papers, has developed explanatory theories, and has prepared excellent technical proposals.

Now that it is acceptable to fund low-energy nuclear reactions, there will undoubtedly be an accelerated interest in this new science. Perhaps, there will be corporations that will be interested in funding new efforts in this new technology. We hope so. Professor George Miley, you are a real scientist. We applaud you!

# **Fusion Briefings**

# **GOVERNMENT FUNDING FOR LENR**

Courtesy of Eugene F. Mallove editor@infinite-energy.com

Newsgroups: sci.physics.fusion Courtesy of John Vetrano, Pacific Northwest National Laboratory

Despite the conspiracy theory that the "establishment" and the US government are unfairly squashing any research into cold fusion-type phenomena, Professor Miley has apparently received a grant from the U.S. Dept. of Energy NERI (Nuclear Energy Research Initiatives?) program to study Low Energy Nuclear Reactions (LENR). That should be quite interesting. I don't know what his previous funding source was or what the amount of his

new grant is, but hopefully it is enough to either prove or disprove these hypotheses. Congratulations are in order since these proposals were rigorously reviewed and only a small percentage were funded. Info about NERI can be found at http://neri.ne.doe.gov/

# **CONDENSED MATTER REACTIONS**

Vittorio Violante (Assoc. Euratom--ENEA sulla Fusione Centro Ricerche Energia, Frascati, Rome, Italy, E-mail: violante@frascati.enea.it) "Lattice Ion-Trap Confinement for Deuterons and Protons: Possible Interaction in Condensed Matter," *Fusion Technology*, vol 35, no 3, May 1999, pp 361-368, 21 refs, 9 figs.

### **ABSTRACT**

The lattice confinement effect on the dynamics of protons and deuterons embedded within metals such as Pd or Ni is studied. The work is based on the assumption that the H isotope concentration, as an atomic fraction, is close to one. The study takes advantage of the analogy between the lattice space around tetrahedral sites and the radio-frequency trap for ions, created when coherent oscillations of the metal atom electrons close to the Fermi level take place and produce a dipole signal. The classical description of the system is developed through the numerical solution of motion equations written in the trap coordinate system. The model for studying the particle trajectories in a Cartesian plane is a two-dimensional analysis. The results show that a collision phenomenon exists between H isotopes confined in the lattice and that the particle trajectories can be very close to the host metal atoms.

# **COLD FUSION BIBLIOGRAPHY**

Just updated and revised, the most complete bibliography of New Energy research papers and articles [predominantly cold fusion] is available again from the Fusion Information Center on 2 disks [PC]. Containing over 2500 references, it traces the progress of cold fusion research since its beginning in 1989 through the abstracts and articles published in *Fusion Facts*, the world's first cold fusion newsletter/magazine, and abstracted from other scientific publications. Specify WordPerfect v6.1 version, or ASCII version. \$15.00 ppd.

# NATIONAL SPHERICAL TORUS EXPERIMENT

Linda A. Johnson, "Princeton Researches Fusion Energy," Associated Press, Plainsboro, N.J.

# **SUMMARY**

Research with the newest experimental nuclear reactor in the U.S. leads some scientists to believe that they are closer to useable nuclear fusion. This reactor, the National Spherical Torus experiment (NSTX) at the Princeton Plasma Physics Laboratory, is an "enormous example of the potential" of the technology, said Energy Secretary Bill Richardson recently.

Robert J. Goldston, laboratory director, said that the radioactivity produced by a fusion reactor is 100,000 times less than in an equivalent fission reactor. But, the projected fruition of research into the technology to control a self-sustaining "burn" of nuclear fuel is suspected to be decades away and cost hundreds of millions of dollars.

In the meantime, the federal government has cut spending by over half to the entire fusion research program, and down to only \$27 million annually for NSTX. This could spell problems for the U.S. in the long run, since it also takes us out of the running for planned international collaborations on the next generations of reactors and worldwide hot nuclear fusion research. This may result in the U.S. needing to pay for rights to use other countries' technologies in future research.

All this makes the smaller cheaper NSTX look much more attractive to U.S. scientists, particularly since replacing the now defunct Tokamak would cost 15 times as much as NSTX's relatively small \$24 million price tag.

Experiments that started last February have been better than expected, proving the reactor's capability to create plasma efficiently. In January 2000, with all systems up and running, it will begin a run of experiments that will last several years, after which the project team of scientists will use what they have learned to adjust the machine for optimal performance.

Another change in this reactor is a removable central core containing some of its most complex equipment, and therefore repairs and upgrades can be done in days with much less trouble than before. The narrower central core also may allow for higher pressures of plasma, which is needed to keep reactions going longer than has been achieved so far.

Whether this research will aid in future energy generation is still a bone of contention, but the research generates other profitable spinoffs such as using plasmas to make better computer chips, to sterilize medical equipment, making better luminous display panels, and possibly providing a lightweight fuel for rocket thrusters in spacecraft.

Summary by Dineh Torres

# Miscellaneous

# **FUEL CELLS AND BATTERIES**

A **Special Report on Fuel Cells** was one of the cover features of the July, 1999 issue of *Scientific American*.

Christopher K. Dyer, "Replacing the Battery in Portable Electronics," *Scientific American*, July, 1999, pp 88-93.

The focus of this article is that fuel cells might be developed to replace batteries in cell phones and other equipment. The most interesting part of the article is the table of comparision of various Fuel Cells and Batteries:

The Energy Potential of Fuel Cells ranges from a solid metal hydride at 370 watt-hour per kilogram to liquid hydrogen fuel cell at 33,000 watt-hours per kilogram. The energy potential of batteries, for comparison ranges from 30 watt-hours per kilogram for the lead-acid battery to 130 watt-hours per kilogram for a lithium-ion battery. The Nickel-metal hydride battery was adopted for use by General Motors in its

provisional work on electric vehicles and has a value of 60 watt-hours per kilogram.

The important concept is – how do some of the new-energy devices (proposed and being developed) rate with the fuel cell and battery technologies. As *NEN* has proposed for many months, the concept of using a new-energy device to charge the batteries in an electric vehicle appears to be one of the strong future uses of such new-energy technologies.

# **DePALMA's SPINNING GYRO WORK**

Courtesy Jim Kettner, Space Energy Journal

David Crockett Williams, "DePalma on free energy, anti-gravity, space-drive, and the future of science," *Space Energy J.*, vol X, issue II, June 1999, pp 36-43.

This is a detailed article on some of the early work of Bruce DePalma, while a part-time lecturer at MIT, and his later work. DePalma showed that there was a difference in trajectories of spinning versus non-spinning steel balls. Later, spinning balls were placed in pendula and were shown to swing at different rates when the balls were spinning and when not spinning.

[This information is also available at: www.hia.com/pcr/vigier/isep.html Ed.]

# **HOW SWEET IT WILL BE**

Courtesy Steve Roen

Gunjan Sinha, "Yeast with Sweet Teeth," *Popular Science*, April 1999 issue.

Ethanol as a fuel has virtually been run off the road by low gasoline prices here in the U.S. But now, there may be a new production technique that makes it more profitable. After 20 years of research, Purdue scientist Nancy Ho has finally succeeded in making a breakthrough in genetic engineering of yeast, which will enable the changed Saccharomyces yeast to convert up to 30% more of the sugars from plant materials into ethanol. The capability to break down xylose is the key to increased yields. The ability to use

plant wastes such as corn stalks and grass clippings further enhances the production potential.

The Biotechnology Center for fuels and Chemicals at the National Renewable Energy laboratory in Golden, Colorado, is interested in this possibly revolutionary achievement. When the yeast was tested in the lab's ethanol manufacturing plant, director Mark Finkelstein said "it performed really well." Still, without being able to cut the cost of ethanol literally in half, it may only be an application that is profitable in niche markets, such as farming areas where the landowners have to pay for plant wastes to be hauled to landfills.

# FRACTALS IN USE

George Musser, "Practical Fractals," *Scientific American*, July, 1999, page 38.

A type of fractal pattern can be made in which every triangle or square is dividing into smaller triangles and squares. Fractal Antenna Systems is producing such fractal patterns that can be used as antennas in cordless phones and other communication devices. The fractal antennas apparently combine the advantages of a random array (robust) and the regular array (efficient). Experiments made by bending wire into fractal patterns showed that the inductance and capacitance of such bent wire not only reduced size but also created capacitance and inductance that help "tune" the antenna circuit (actually to broaden the range of frequencies). Mathematical studies by Cohen and Hohfield (March, 1999 in journal - Fractals) prove that for an antenna to work equally well at all frequencies, it must both be symmetrical and be self-similar at every scale - a good definition of being fractal.

# SOUND CAN POWER ENGINES

By Mark Prigg (from email sent by Jean Hudon, unknown London publication source)

Sound could be the key to engines of the future according to American researchers.

# The Science of the Future Began Yesterday Fusion Facts New Energy News Journal of New Energy

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Phone (801) 466 8680 Fax (801) 466 8668 E-mail <halfox@slkc.uswest.net>

A team at the Los Alamos National Laboratory in New Mexico has developed an environmentally friendly engine with no moving parts that is powered by sound waves.

The new engine is made from steel tubing and is cheap to produce. Called a thermoacoustic Stirling heat engine, it consists of a long baseball-bat-shaped resonator with an oval chamber instead of a handle.

The engine is filled with compressed helium and when heat is applied to the "handle" acoustic energy in the form of sound waves is produced. This can be used to drive a piston and create electricity. The team is also working on a similar system to cool refrigerators.

Scott Backhaus, one of the inventors of the engine, says: "Conventional engines are limited

by the laws of thermodynamics and their complexity. Typically the most efficient engines are the huge turbines used in power stations." "Our small engine is actually 10 percent more efficient than the best turbine, largely because of its simplicity," he says. The engine is also maintenance-free as it has no moving parts.

The team is working on a way to use solar energy to power the engine and considering a system that uses a car's exhaust heat to power its air-conditioning system. A home version of the engine, also under development, could be used both to generate electricity and provide domestic heating.

The principle behind the engine was discovered by Robert Stirling, a 19th-century Scottish inventor, who found that cooling and heating gases could drive a piston.

# INTERNET TO INCREASE POLLUTION?

Courtesy of Gordon Moody

Gordon Moody, "Electric Power Requirements of Computer Age to Require More Fossil Fuels," Global Energy Outlook, May 1999, p 9.

### **EDITOR'S SUMMARY**

The digital age is energy intensive. There are more than 50 million PCs in homes and another 150 million in businesses in America. Currently. it is estimated that computers consume about 13.5% of all electric power – and rising. The Internet is a big factor in the increase in personal computer users. Not only is the energy cost of using a computer a factor but also is the energy cost of making a computer (estimated at 1,000 kilowatt hours). Due to the increased digital age, the Internet growth, and other computer uses, the U.S. can no longer expect a 15% decrease in the use of fossil fuels (much by energy conservation). Instead the digital age may cause a 15% or more increase in energy demand. The we need to get new energy technologies replacing the use of fossil fuels.

# OCKHAM'S RAZOR & BIG BANG Hal Fox

Just to remind those scientists/engineers/inventors/philosophers who struggle with the complexity of **Nature**, William of Ockham (c1285-c1349) stated the following: "non sunt multiplicanda entia praeter necessitatem" [translated to: "entities are not to be multiplied beyond necessity."] This statement has been called the Law of Economy or the Law of Parsimony.

Others than Ockham, both before him and since, have stated the same concept. Ockham repeated it so often, the statement has become known as "Ockham's razor." In more modern times, Ernst Mach (1838-1916) proclaimed that it is the aim of science to present Nature's facts in the simplest fashion consistent with observations. Ockham's Razor, and Mach's urgings are being applied to more fully (and with greater simplicity) explain the rapidly growing experimental discoveries. For example, Einstein derives  $E = mc^2$  from two fundamental postulates

(hypotheses). Harold Aspden and Hal Puthoff are more parsimonious and derive  $E = mc^2$  from simple assumptions. Perhaps the most prolific contrivance of man's attempts to explain scientific observations is the concept of the Big Bang. This stated and restated; contrived and reformed; proclaimed, found flawed, repaired, and re-proclaimed explanation for the red shift and the background microwave radiation is strongly in need of the application of Ockham's Razor. See how simple this cut can be: The red shift is caused by light losing energy due to interactions with charged particles in space. The energy lost is the energy found in the background microwave radiation. How simple! How beautifully it fits the Law of Parsimony! How neglected by cosmologists who are mired in the complexities of the Big Bang.

# ROBERT PARKS DOES NOT REPRESENT APS

The editorial staff has had numerous queriers about the official position of the American Physical Society with regard to Low-Energy Nuclear Reactions.

Professor Jorne Friedman (MIT), President of the American Physical Society, stated in a telephone conversation with New Energy News, "The APS has not taken an official position on Low-Energy Nuclear Reactions." The emails and pronouncements of Robert Parks are his own opinions and do not reflect the official position of the American Physical Society. That is the good news. We have great respect for the APS, and Parks has been responsible for several resignations or failures to renew membership due to his emotion-laden, derogatory remarks debunking the work of many prominent If you would like to make your scientists. judgment known, please write or call Professor Jorne Friedman, MIT #24-412, Cambridge, MA 02139. Alternatively, you may call Robert Parks at 202-662-8700 and let him know what a disservice he is doing for the APS and scientific advancement.

### **FUTURE ENERGY CRISIS?**

Courtesy of Gordon B. Moody

Gordon B. Moody, Editorial in *Global Energy Outlook*, June 1999.

"For the first time in history, U.S. crude oil production has dropped below 6 million barrels per day. ... All of the business journals, including Business Week, The Economist, The Wall Street Journal, Oil & Gas Investor, and the Oil and Gas Journal are warning about a future potential energy crisis. Whether it's crude oil or natural gas, all of the major world reserves are located in a narrow band from the Middle East, through Central Asia, and Russia. It would be tragic if we had to look to Iran, Iraq, or Russia to meet our future energy requirements."

# SENATE COMMITTEE VOTES ON NUCLEAR WASTE

Staff (Associated Press) "Compromise proposal on storage on N-waste passes Senate panel," *Deseret News*, June 16, 1999.

# **EDITOR'S COMMENTS**

The AP reported that after five years of discussions, the Senate Energy and Natural Resources Committee approved a compromise measure on a 14 to 6 vote. The compromise proposed by Senator Frank Murkowski (R-Alaska) would have the government take title to the high-level radioactive wastes now stored at more than thirty nuclear power plant sites. Senator Jeff Bingaman (D - New Mexico) was opposed to the measure because he feared that it would strip the Environmental Protection Agency of the authority to regulate radiation exposure levels at the future Yucca Mountain waste site – assuming that it is ever completed.

The stated purpose of the interim proposal is to await the approval of the Yucca Mountain geologic storage site. This storage site has not yet been approved and, if approved, is not expected to be available for nuclear-waste storage until 2010. From this publication's view, the delay in expenditures for the enormously

costly process of packaging, transporting and geologic storage of these spent-fuel pellets from nuclear power plants is a blessing. It is now highly feasible that new-energy technology will be able to stabilize these radioactive wastes ON SITE. The delay may result in the savings of billions of dollars to the American tax payer. We commend Senator Murkowski and his Energy and Natural Resources Committee for taking this step. Meanwhile, more time is available to those new-energy scientists who are working on the technology for transmuting radioactive wastes.

# WHAT DO WE REALLY KNOW ABOUT NUCLEI?

Klaus Rith and Andreas Schäfer, "The Mystery of Nucleon Spin," *Scientific American*, July 1999, pp 58-63.

As editor of the Journal of New Energy, a lot of excellent (and some not so good) papers are reviewed and many published. Contrary to the "standard model" [the model(s) of the cosmos, energy, and matter that are taught in western universities], it is becoming more obvious that there was no Big Bang (red shift, expanding universe, and microwave background radiation have a much simpler explanation); nuclear reactions can occur at low energies; the dismissed aether has reappeared under new names; subtle energy fields exist; and the speed of light can be greatly exceeded. All of these discoveries (not as yet accepted by western academia) are promoting a revolution in the way in which we view the physical universe. In a careful reading of "The Mystery of Nucleon" Spin," this reviewer wonders how much of what is presented are real facts and how much is built on the dogma of the standard model.

It would be interesting to marshall the experimental evidence (stripped of all explanations) and review that evidence in terms of our newer appreciation of superluminal velocities (torsion fluctuations); photons interacting with charged particles (the cause of the red shift); subtle energy fields (e.g., torsion fields); and an energetic ZPE (the modern

aether). For example, in the extensive efforts to create stronger and stronger particle accelerators to bombard target materials, it is assumed that there is no highly-energetic aether. Perhaps, the nucleon debris (used to determine the makeup of nuclei) is merely the debris of matter created from the interaction of the high-energy particle beams and the combination of matter and the energetic aether. The high-energy particle bombardment of nuclei of target materials has been likened to attempts to determine the structure of an exquisite ceramic vase by studying the ricochet pattern of machine-gun slugs. Extensive studies have shown that simple chemical explosions (labeled as the Rowe Effect) or sparking from electrodes in a vacuum can produce hydrogen (protons). Wouldn't it be credible to hypothesize that the energetic bombardment of target materials can also produce various debris that has nothing to do with nuclear fragments?

For a confusing and elaborate proposed structure (using both real and virtual particles) of the nuclei, read this article in *SciAm*. [Hal Fox, Editor.]

### THE MISSING DOPPLER EFFECT

Bert Schreiber (Bellaire, TX),

# **ABSTRACT**

The Doppler effect is a mechanical equation (self-evident). It was changed by others into a quantum equation. There is a missing Doppler effect which has been overlooked. The finding of this effect totally changes current theories and can, properly applied, eliminate the Theory of Relativity in reality, nullify same, i.e., reality vs. false theory.

# **BACKGROUND**

The author will assume the readers are familiar with the Doppler effect. There have been many scientific papers written on why the Doppler effect (including some based upon Einstein's Relativity).

For brevity, only one example will be given. It is obvious that the relative movement of the source and/or observer is a cosine function and the equations for light and sound are different, which will be ignored here, as that does not change the end results. Therefore, the single example given can be modified, as such will then cover all of the variations of same.

### **EXPERIMENT**

On a straight stretch of train track there is a train. Standing at the rear of the train between the rails is an observer. The observer will time how long the train whistle is blown. The engineer has been instructed to blow his whistle for exactly one second while the train is not moving and then when he has put the train in forward motion and reached an agreed upon set speed, to blow the whistle exactly one second again.

The first blast is timed by the observer to be one second. Then the train moves and the whistle is blown the second time. The observer measures how long the whistle blew and it is/was longer than when the train was at rest.

### **RESULTS**

The results are a result of a simple mechanical situation and are self-evident. The Doppler effect, **mechanical** (classical) equations, has nothing to do with any theory, much less Relativity, required to "explain" same.

What all have overlooked, up to this point, is for any source of oscillation (production or frequency to keep this simple) there must be some elapsed time for same to occur. The production of one cycle or a fixed number of cycles takes some **absolute finite (fixed) time**.

When the train was at rest, say the whistle's frequency was 1000 cyc/sec, then **1000** cycles were produced in that one second.

When the train was moving, that production or emission time was still one second and 1000 cycles were produced, but, the source was moving and hence was moving away from the

observer so that: From the first cycle to the last one, the train had moved up the tracks **stretching out** the communication's path length.

This is the same as making each of the original wavelengths longer, hence, a decrease in the frequency. The original (as at rest or moving, same thing) **number** of cycles did not change, but the observer **counts** per hiser [unisex for his/her] unit of time did change. Hence, if the observer was measuring the original and final frequency and/or wavelength, **relativistic effects**, there would have been a difference.

In the normal laboratory source — observer situation, the source's **absolute** Doppler effect occurs as it is moving in space. Speed and direction is immaterial. The observer is moving at the identical speed and direction which **negates** the original Doppler effect. Therefore, the observer can, and does, measure the values **as if** both were **at a point of absolute rest**, i.e., the true number of cycles emitted, the true emission time, the true frequency, and the true wavelength.

# **APPLICATION**

What all forgot is the change in the communication's path length. Where light was used, it was assumed to be a photon or was a photon [1] having **no creation time**, a complete and total impossibility and absurdity. This was a **false postulate** (assumption) to start with and **ignores reality**. Therefore, all of those thousands of scientific papers using Lorentz whatever or frames-of-reference whatever which were used to prove **the existence of the nonexistent**, are worthless.

It was not taking into consideration this communication's path length changes which

was "attributed" to Einstein's relativistic effects, or the conservation of mass-energy in the classical/relativistic, when it was not so. It is the old classical physics properly applied.

The "apparent" increased time of decay of muons when moving at a high speed was likewise hailed as a triumph for the proof of relativity. Time slowed down. Afraid it does not.

It takes some time for the muon to decay, how long immaterial, but it is not instantaneous. All it did was to decay in the identical time which it normally does so to the absolute time of the universe. This is called at an absolute rest reference point, which it is in reality. The time as **measured** by the laboratory "clock" took longer because the communication's path length was greater.

### **OVERKILL**

The author has a hard time trying to get his simple thoughts through to readers because of their fixed pre-beliefs. Therefore, this simple illustration should make it very clear.

A slug of ice is inserted into a long tube of very hot gas. The ice melts, in say one second, and gives off a "signal." The signal (start of melting to end of melting) reaches the detector likewise during this same time. Now a compressed air gun fires this slug into the tube so it is moving faster. It takes the same time to melt, but the ice has moved further down the tube so the signal now takes a longer time (start to end, the end of which is further away from the detector) to reach the detector. ERGO, time must have slowed down because the laboratory "clock" says so.

# CONCLUSION

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The Doppler effect is nothing more than the mechanical results of the movement of the source in/through space (no source can ever be at absolute rest) during a fixed (absolute) emission time and for the interception time required of the moving observer, mechanical/mathematical relativistic cosine (vector) effect.

The **vector** of speed is called velocity and created much confusion. Velocity is unique in that it is the only one whose scalar component, magnitude (an actual number and dimensions can be assigned), has a designation distinct from the vector, that is speed.

Therefore, the Relativity equations use velocity which resulted in such nonsense as: The velocity of light is a constant or the increase of mass with velocity, ad nauseum.

# REMOVING RELATIVITY

Readers are referred to ref. [2] which is on changing the rules. Relativity only works when using light and the communication's signal is **through free space**. When a mechanical/physical connection is made, change the rule(s). The result is relativity ceases to exist.

When there is a fixed carrier from the train whistle to the observer, the time of the whistle blowing would remain one second. This fixed carrier of a fixed length, could have been a long, hollow air-filled tube (coiled and unwinding) from whistle to observer or a microphone and wire cable ditto. The time "inside" said tube or cable is not relativistic.

Let the whistle be replaced with a flashing light and the carrier be an optic cable. Measured space path flash time varies vs. measured carrier flash time **fixed**. [absolute]

In case the readers "still don't get it", using continuous light as the signal does not change anything. Each cycle of same still requires some emission time creation and/or an extended emission time for any chosen number of cycles. Each cycle is "one flash." That is **reality**.

In case readers do not make the connection once again, this time changing is also known (and the equation<sup>1\*</sup> holds true when **properly applied**) as "TIME DILATION." [3] **Mass, length, nor time has any real change**, only **its** "apparent" measures.

Goodbye Relativity.

### MATHEMATICS

The mathematics of using the Doppler equations can be simplified. Let  $\Delta R$  be the ratio between original set to a unit of 1 and final that on the right. Assuming some value of v gives the right as  $1.01 = \Delta R$  automatically (source or observer or both receding, only one v necessary) then for the chosen original value observed:

- 1. Divide frequency by  $\Delta R$ .
- 2. Multiply wavelength by  $\Delta R$ .
- 3. Multiply emission time by  $\Delta R$ Further applicable minutiae obvious.

### HISTORICAL NOTES

- 1. About 100 years ago, a stylus (short bristle) was glued vertically to one end of a fixed tuning fork. When a smoked glass plate (or on a rotating drum) was moved at right angles to that stylus, the path of the vibrations on the plate traced a sine wave. Depending on how fast the plate was moved, the wavelength (frequency) was either compressed, remained the same, or was expanded. The tuning fork is the fixed source and the plate the relative motion of the "observer." The implications of this were not connected to the Doppler effect, nor to Relativity.
- 2. Stefan Marinov (1931-1997) born in Sofia, Bulgaria, performed the equivalent toothed wheel light experiment as used to measure the speed of light in 1980, as done by Fizeau and Michelson earlier. The exception was, he used the intensity (frequency energy change actually) measured to an order of 10<sup>-5</sup> accuracy using photodiodes. He therefore determined the

<sup>&</sup>lt;sup>1</sup>\*The time dilation equation (Lorentz transformation) can be, though apparently not well known, converted directly into a cosine function format. As in ref [3].

pulse's absolute "Doppler effect" and determined the direction and speed of the Earth through space. His value agreed with E.W. Silvertooth's. [4]

3. Therefore, there are four experiments each which measured the speed and direction of the Earth through space. One by Silvertooth using interference fringe shifts, two by Marinov using two different methods, and the results of the COBE experiments or that **fixed** 2.7°K 'background" radiation detection.

The author has a proposed experiment which uses the **time of flight** (How long did the whistle actually or apparently blow?) of a pulse(s) of light to begin with which will permit the absolute speed and direction of the apparatus (Earth) to be detected and measured.[3]

How many (more) times must this be done before the scientific establishment will be forced to admit the truth?

References:

- [1] B. Schreiber, "The Photon, Fact or Fiction?" Toth-Maatian Press, 1998, vol 14, no 2, p 6645-6651.
- [1] same in R&M #26, September/October 1997
- [2] B. Schreiber, "Changing the Rules," R&M #12, May/June, 1995.
- [3] B. Schreiber, Quantum Quanta Theory \* \*
  \* The Theory of The Universe, self-published,
  Fourth revision, April 1999.
- [4] J.P. Wesley, "In Memoriam: Stefan Marinov," *Galilean Electrodynamics*, Special Issue, Spring 1999, pages 11-12.

# **HELLO SUNSHINE**

courtesy of Steve Roen

Duncan Grahan-Rowe, "Hello, Sunshine," New Scientist, 10 Oct. 1998, p 11.

A technological breakthrough may make solar cells producible at only a fraction of the cost of today's cells. A discovery at the Swiss Federal Institute of Technology in Lausanne, has led the way to develop a solar cell based on titanium dioxide film which has an energy efficiency of as

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high as 33% – double the current standard. The cells consist of a photosensitive layer over a thin layer of titanium dioxide, utilizing an amorphous organic material instead of the usual liquid of most cells. This makes the resulting cells both cheaper and easier to work with.

These cells could make the traditional silicon or germanium based cells obsolete on price factors alone. If such efficiencies can be attained in commercial solar cells, these new cells needn't cost much more than a similar area of glass. Add that to the fact that the layers are so thin as to be transparent, and you can have a digital watch whose face could be both power supply and display.

# HOW MIGHT THE MILLENNIUM BUG AFFECT NUCLEAR POWER PLANTS?

by David Lochbaum, Union of Concerned Scientists Courtesy of Remy Chevalier

As ironic as it seems, the good news about nuclear power plants is that much of their emergency systems use 1960s technology. These antique systems are unlikely to be affected by the Millennium Bug because they are not computer controlled. These systems will work on January 1, 2000, as they have during the 1960s, 1970s, 1980s, and 1990s.

The bad news is that nuclear power plants have non-emergency systems that may be disabled by the Millennium Bug. The failure of these secondary systems can prevent emergency systems from functioning properly. The plant monitoring and the security computers are two such systems.

The plant monitoring computer receives signals from thousands of sensors throughout the plant. The signals include information such as the pressure inside the reactor, the temperature of the cooling water, the amount of fuel available for the backup power systems, and opened/closed position of valves. The computer relays this data to the operators via display screens and printers in the control room. These signals are also wired directly to gauges, chart

recorders, and alarms so the operators get the information needed to evaluate conditions and control the plant even if the monitoring computer fails

For more information and the full article go to: <a href="http://www.tmia.com/y2k.htm">http://www.tmia.com/y2k.htm</a>

# Other Publications

### **ARTICLES IN COLD FUSION TIMES**

Courtesy Dr. Mitchell Swartz

The primary theme of vol 7, no 2, Spring 1999 issue of Cold Fusion Times is the Second Decade of CF and CF Theories. It is now reasonable to assume that there is no single explanation for the array of experimental evidence found with a variety of experiments on cold fusion and other low-energy nuclear reactions. In "The TNCF Model of Cold Fusion," by Hideo Kozima (page 1) it is suggested that trapped neutrons in the metal lattice participate in the nuclear reactions. [Comment: When heavy elements fission, there are excess neutrons that must be explained. The fission of a heavy nucleus into lighter nuclei either ejects the extra neutrons or creates elements which are unstable and reduce to stable elements by emitting a high-energy electron (beta emission) which converts a neutron to a proton. In CF very little neutron emission is detected. suggestion is that Kozima's trapped neutrons may have a source within the cathode.]

Russ George, "Production of <sup>4</sup>He From Deuterium Using Nano-Particle Palladium," shows that the helium-4 is gradually produced by finely divided palladium with pressurized deuterium and elevated temperatures. Three-body deuterium reactions are proposed by Kjeld C. Engvild, "Nuclear Reactions By Recombination of Deuterons and D<sub>2</sub> Nuclei." Mitchell Swartz presents a thoughtful formula to help explain palladium surface reactions with deuterons produced by electrolysis in "Deuteron Flow At An Electrode Surface." [Not mentioned is this editor's favorite explanation of cold fusion

energy by the production of high-density charge clusters by fracto-emission, the acceleration of deuterons, and the nuclear reactions upon impact with the palladium.]

Ohmori, et al., "Transmutation In A Gold-Light Water Electrolysis System," (page 4) reports "The Au cathode also showed some pits, cracks, and microcraters..." Olayo, et al., "Absorption Of Deuterium In Titanium Plates Induced By Electric Discharges," (page 4) reports "...high voltage discharge led to further loading ... and some heating. ... Some slight neutron emission was found..." Mizuno, et al., (page 4), "Confirmation Of Changes Of Isotopic Distribution For Elements on Palladium Cathode After Strong Electrolysis in D<sub>2</sub>O," reports, "As expected, a wide range of elements was found, ... these were concentrated at the surface, notably in cracks and holes." Ohmori, et al., (page 4) "Nuclear Transmutation Reaction Occurring During The Light Water Electrolysis On Pd Electrode," reports that the abraded Pd surface produced nuclear reactions. Mizuno, (page 10) "Condition Of The Metal Surface After Use As A Cathode," reports, "...surface was sprinkled with white spots ... objects shaped like lilies ... The lilies had only appeared in areas that had been heavily [abraded] ... [especially] in samples that had been electrolyzed repeatedly ... [metal surface] has grain boundaries, defects, [Comment: protrusions, contaminants...". Mizuno mentions the voltage increase from protrusions but does not mention the enormously greater voltages that can occur in lattice fractures.] Note that in this paragraph, this reviewer has selected those comments that could be cited to support the concept of nuclear

# **COLD FUSION TIMES**

The Journal of the Scientific Aspects of Loading Isotopic Fuels into Materials

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reactions by the lattice fracto-fusion (production of charge clusters).

Dr. Swartz and Gayle Verner perform an excellent service for their subscribers in reporting the latest information from the exciting and progressing world of low-energy nuclear reactions. See their Web Home Page: http://world.std.com/~mica/cft.html

# FOUNDATIONS OF SCIENCE

Courtesy of David L. Bergman, Editor

NEN recently received the fourth issue of Foundation of Science. This issue deals mainly with Matter Waves and a "Ring Model" of the electron. In a telephone discussion with David L. Bergman, we discussed evidence for the toroidal model of the electron with the concept that a toroid can have waves (in the sense of pinched or undulating waves around the toroid) but can only have an integer number of waves. This model can explain how the electron toroid can absorb or emit specific frequencies -- related to the number of waves around the toroid. Bergman and his associates believe that this toroid or "ring" model for the electron explains more of the observed phenomena than any other model. Issues of Foundations of Science are

Contact DBergman@CompuServe.com

# FUTURE TECHNOLOGY INTELLIGENCE REPORT

Courtesy of Dr. Antony C. Sutton

The July 1999 (vol 10, no 7) issue of FTIR presents some good news on the new-energy front: BlackLight Power<sup>tm</sup> is making new compounds from the hydrino (collapsed hydrogen atoms); transmutation processes being recognized; major firms investing in new-energy technologies; sonofusion now expanded to larger amounts of energy; *San Francisco Chronicle* asks "Why the war on cold fusion?" etc. Dr. Sutton, editor/publisher of FTIR, announces a special supplement for those looking for investments in new-energy technology.

[FTIR, PO Box 163477, Fort Sutter Station, Sacramento, CA 95816-3477]

# **Editorial**

# **BILLY MITCHELL AND THE MILITARY**

By Hal Fox, Editor Suggested by Bert Schreiber

Billy Mitchell was an Army Air Force officer with a view of what air power could do in the future. He claimed that aircraft could be used to sink anything that floats. The Navy finally responded to his nonsense and an experiment was conducted. They anchored some World II German navy vessels and Billy Mitchell was provided with some small bombs. There was some destruction, but no severe damage to the ships. On the last test, Billy Mitchell had some special bombs fabricated with hard noses and a lot more explosive force. Instead of dropping small bombs on the ships, Mitchell reasoned that an armor-piercing bomb could go through the upper decks and do more damage. I've heard two versions of the rest of the story. One by accident. One by pure intent. In any event some bombs were dropped to explode in the water adjacent to the ships and blew in the sides of the ships. All ships were sunk. The Navy cried "FOUL! You didn't abide by the rules!" The end result was Mitchell was demoted (but later reinstated.)

Later in his career, but before Pearl Harbor, Billy Mitchell and friends, on a Sunday morning, dropped sacks of flour on ships anchored in Pearl Harbor. Even with that type of forecast of things to come, the U.S. military did not properly acknowledge the new coming age of air power. [A personal note: On the way to Leyte (one of the Philippine Islands) our transport vessel sailed for days through an oil slick in the Coral Sea. The oil slick was all that was left of dozens of Japanese navy vessels that were earlier sunk by allied aircraft in "The Battle of Coral Sea." That put a stop to Japanese expansion, and General McArthur started island hopping and bypassing Japanese military units located on various islands and leaving them with less and less Japanese naval support.]

Does this scenario remind you of some of the problems of cold fusion? There are those who are so heavily involved in their academic careers that they don't want to change. I don't blame them. They are engaging in turf protection. Today, I talked at some length with a high school student doing a report on Cold Fusion. I told him, "You are the guys (gals, too) who are going to change the world. It won't be old duffers like me." This young man is not entrenched in the status quo. He, and thousands of others like him (including some hers), are going to change the world. Just as suggested by Ernst Mach that the old generation will die off and the new generation will be those who adopt and adapt to the new technologies.

# **Book Reviews**

by Hal Fox

# **BEYOND THE THEORY OF RELATIVITY**

Beyond The Theory of The Relativity, László Gazdag, Translated by Máté Fazekas (Hungary), c1998, 2nd ed., Publishing House, Robottchnika Kft., Budapest, Hungary, ISBN 963 85687 4 7; \$5.00, 81 pages, indexed.

Dr. Gazdag has presented a number of difficult concepts in a more simple manner than is usually done in books of this type. He has extended some of the concepts of physics to embrace the aether because he found that the concept was important to explain some of the basic concepts of physics. Gazdag quotes Einstein as saving that some of the concepts of the aether may have to be included. Gazdag also explains, in an easy to understand way, how Planck developed the concept of quanta and suggested Planck's constant. Some of the prior scientific minds from Gazdag's part of the world are cited and their contributions to the evolution of advanced scientific thought are explained. (We, too often, do not study and appreciate some of the great minds that have contributed to science from the middle-European and Russianspeaking countries.) The way in which Gazdag

treats the concepts of how particle matter under acceleration becomes wave-like (up to the speed of light) is particularly interesting. Gazdag suggests that at the speed of light any particle is fully a wave. Although he still embraces Lorentzian dimensional changes, it is difficult to reconcile a flatter wave.

This author also gives an excellent background to the use of the red-shift to calculate the time of the Big Bang – for which a Nobel prize was awarded. Although this reviewer thinks that the Big Bang is a figment of the imagination, the history of the concept is interesting. Gazdag has not had the pleasure of being introduced to high-density charge cluster technology and, therefore, his explanation of Globular Lightning should be revised.

For those who do not readily comprehend some of the mathematics, you will find it instructive to read between some of the equations. The author does a good job to identify what the equations represent. If you have been dabbling in the study of relativity, you will find this book to be pleasantly more explanatory than most of the books of this type. Not only are the explanations better, but the concepts presented are well worth the \$5 selling price. Dr. Gazdag is another of the international scientists with whom we hope to continue the dialogue that is rapidly developing a better understanding of **Nature** and how **Nature's** phenomena may be better applied to solve some of **man-made** problems.

# **SPACE CHARGE AND PHOTONS**

Extended Electromagnetic Theory, Space-Charge in vacuo and the Rest Mass of the Photon, Bo Lehnert and Sisir Roy, World Scientific Series in Contemporary Chemical Physics - Vol 16, Publ. by World Scientific, River Edge, NJ 07661, c1998, 160 pages, illus., 100 refs, indexed, ISBN 981-02-3395-7.

In this timely monograph, the authors develop important equations using modified forms of Maxwell's equations. Some of the conditions developed are for a nonzero divergence of the electric field and for nonzero mass of the photon

coupled with the concept of a nonzero electrical conductivity of the vacuum. The end result is some important new concepts that can be tested in the laboratory. The conditions by which the photon had previously been shown to have zero mass are carefully presented and shown not to a binding constraint. With the photon shown to have a nonzero mass, it is shown that such photons can interact with a nonzero conductivity of space with the result that photons can lose The energy lost is shown to be reasonably close to the measured low-frequency microwave radiation which appears to penetrate all space. The end result is consistent with observed experimental evidence; can be shrunk to approach the concept of a point charge: fits much of the data of the neutrino; appears consistent with an earlier proposed string model of hadron structures and leads to further development.

In addition, new types of electromagnetic wave phenomena can be described. This leads to a better method to handle both wave and particle behavior and can explain total reflection of light. Both longitudinal and transverse waves are handled. The new approach developed may lead to a deeper insight to the transition of a beam of photons to macroscopic light waves.

Of most interest to this reviewer is the development of the concept of "tired" light: light which loses some of its energy without distortion so that the visual field (such as photos of distant stars) is essentially unaffected. It is shown that the photons can have mass; that the interaction of such a nonzero mass of photons with spacecharge in the vacuum of space can result in lower photon energy (a red shift). Further, it is shown that the lost energy appears to closely match the observed microwave energy in space. Thus the two bastions of evidence for the Big Bang (red shift, and microwave radiation) are **analytically explained**. This analytical development is sufficient reason for any thoughtful scientist to ensure that this book is purchased and read. The list price of \$32 should not be a barrier for such an important contribution to the advancement of our understanding of new aspects of electromagnetic radiation.

[Note: The findings of this book (concerning the red shift and the background microwave radiation) support a similar result. See: P. Anastasovski, H. Fox, K. Shoulders, "A New Approach to the Cosmic Red-Shift and to the Cosmic Microwave Sources," *J. New Energy*, vol 1, no 2, Summer 1996, pp 79-87, 4 refs, 5 figs.]

### **BIG BANG BUST!**

The Cult of the BIG BANG, Was There a Bang?, William C. Mitchell, c1995, 240 pages, 5 figs, 85 refs, indexed. Cosmic Sense Books, PO Box 3472, Carson City, NV 89702, \$11.95, ISBN 0-9643188-0-6.

William C. Mitchell presents a thoroughly-documented discussion of the successes and failures of the Big Bang hypothesis. Here is a partial list of the problems of the Big Bang hypothesis: Age of Universe, Microwave Background Radiation, Center of Universe, Conservation of Mass/Energy, Cosmic Strings and Sheets, Curved Space, Critical Mass Density, Expanding Space, Gigantic Galactic Formations, Gravitational Red Shift, Light Element Problem, Negative Energy of Gravity, Quasar Problem, Red Shift Problems, Smoothness Problem, Speed-of-Light Problems, Superluminal Flares, Zero Net Energy, etc.

Normally, within the standard view of the scientific method, any hypothesis that had so many problems would be abandoned and the search would be well along on an alternative hypothesis. To set the stage for the Big Bang, it begins with the American astronomers Edwin Hubble and Milton Humason (late 1920s and early 1930s) finding that nearby galaxies appeared to be moving away from the earth. The farther away the galaxies were, the faster they appeared to be moving away. measurement for this effect is that a body moving away from the earth has a shift in its emitting light toward lower wavelengths (red shift). Hubble did suggest (probably without believing that anyone would take him seriously) that the universe could be expanding. Later this [ridiculous?] suggestion was seriously considered by at least three cosmologists

(especially Gamow in 1948). The Red Shift, which Hubble labeled as an **apparent** motion of distant galaxies, is the major observation upon which the Big Bang hypothesis is based. In addition, two other major props for the Big Bang are (1) the relatively uniform (in all directions) observation of the microwave background radiation and (2) the production of light elements such as hydrogen, helium, deuterium, and lithium.

If other explanations could be found for the Red Shift, the Microwave Background Radiation, and the production of light elements, that would certainly weaken the logical basis for the Big Bang. Recently, there have been two discoveries that easily handle the first two: Red Shift and Microwave Background Radiation. Here are the references: Petar K. Anastasovski & Trevor M. Benson, Quantum Mass Theory Compatible with Quantum Field Theory, c1995, and P. Anastasovski, H. Fox, K. Shoulders, "A New Approach to the Cosmic Red-Shift and to the Cosmic Microwave Sources," J. New Energy, vol 1, no 2, Summer 1996. In reviewing Anastasovski's book, this reviewer suggested that Anastasovski has found an explanation for the Red Shift. The result was the follow-on paper in which Anastasovski shows that not only do photons lose energy in their interactions with charged particles in space, but the relatively lowfrequency energy lost is emitted in the microwave region – thus the Red Shift and the Microwave Background Radiation are simply explained! More recently, Bo Lehnert and Sisir Roy, Extended Electromagnetic Theory, Space-Charge in Vacuo and the Rest Mass of the Photon, have analytically shown the same effect - the red shift by loss of photon energy and emitted as the microwave background radiation.

If the Big Bang is balanced on the three-legged stool of Red Shift, Microwave Background Radiation, and the Light Elements, there is not much left to stand on. As Mitchell points out in his book, the concept of the light elements being produced within a few seconds after the initiation of the Big Bang by matter being formed out of the primeval energy – of course, light elements would be more easily formed than heavy elements – has some problems.

William Mitchell cites the biggest problem for the Big Bang is to explain the operation within the context of conservation of mass and energy. As the Big Bang hypothesis has matured (from the original guess of 2 billion years ago to the present day "corrections" to 10 to 14 billion years ago), the process has been accomplished with retrodiction. Retrodiction is akin to prediction except that retrodiction occurs after the discovery of new observations, whereas prediction is provided before the discoveries. In other words, the Big Bang theory has been continuously updated in an attempt to explain the many new cosmological discoveries. If there is still some degree of logical awareness among the Big Bangers, it will be interesting to observe how they handle the much simpler explanations of the Red Shift and the Microwave Background Radiation.

William Mitchell has provided an in-depth study of all of the many facets of the Big Bang. He has exposed the multitude of problems, often by citing the Big Bang proponents. In addition, Mitchell begins his book with three excellent chapters summarizing the history of Relativity, the Standard Model of Particle Physics, and Quantum Theory. The book is worth buying and reading just for these three chapters.

In Chapter 19, Mitchell discusses an optional cosmology - a Near Steady-State Theory. This discussion was provided before the information about the Red Shift (as cited above) was available to Mitchell. It is highly probable that Mitchell and other cosmologists will revel in the concept that photons lose energy in traveling the immensity of space. It is, therefore, predicted that the continuation of exploration into the depth of the heavens will find more and more galaxies (as has been the case with the Hubble Telescope observations); that the farther off these galaxies exist, the greater will be the Red Shift; and there will be no observable edge to the universe nor evidence for a Big Bang. conclusion is that as an explanation for the wonders of the heavens, the Big Bang is a Bust.

# Letters

# to the Editor & Others

### LETTER FROM HAROLD ASPDEN

I appreciate your sending me Dr. Wingate Lambertson's address. I have been in contact with him and already he has updated me on his efforts. Reading between the lines, I suspect he is having troubles with overheating of his cermet dam. As I see it, the action in several of these experimental pursuits which deliver excess energy is the setting up of a positive ion space charge. This applies to Win Lambertson's device, Paulo Correa's device, and the device of Ken Shoulders. That implies heat, possible pulsing, and the delivery of excess electrical output is at the price of excess heat, but the more important consideration is the problem of understanding the physics involved.

That is why I have set my task as the demonstration of the possibility of tapping excess energy from the magnetic inductive process, where heat is not a problem and where I feel I have insight into the physics that is at work. However, I do stress that we should be working together in a concerted challenge to undermine the hot fusion establishment by attacking their belief that 150,000,000 Kelvin at the central core of the Sun is the trigger for the release of nuclear energy from hydrogen.

This is a chicken and egg argument. The hot fusionists cannot explain the Sun's energy source, but once nuclear transmutations were discovered, they said immediately that nuclear reactions had to be the heat source. Yet they say it needs high temperatures to trigger the reaction and I say that once you get above 6000 Kelvin you get ionization anyway. Two free protons have a mutual rate of gravitational acceleration (attraction) that is 1836 times that between two free electrons, and so the hydrogen plasma must develop a form in which there is a distribution of positive charge with a surrounding

spherical shell of negative charge. That is analogous to the positive, ion-core charge that I see in the Lambertson, Correa, and Shoulders research. So maybe the Sun itself, with its ever active electric discharges is pumping energy from the enveloping space medium and maybe the Sun is not 100% powered by hot fusion reactions but by a combination of aether energy and perhaps some cold fusion effects.

My suggestion is that, whatever our interest, whether motors, discharge phenomena or cold fusion, we have a common cause, which is that of undermining the popular belief that the Sun has a core temperature that has to be up in the 100,000,000 Kelvin region. My case is simple. Once there is ionization, the proton population has a radially-inward displacement relative to the electron population and this means equilibrium as between gravitational attraction and electrostatic repulsion, making for a uniformly dense solar body. The average mass density of the Sun is 1430 kg per cubic meter. Compress hydrogen gas to the point where the electron K-shells come into contact and, assuming random but close packaging, and you get no more than 1700 kg per cubic meter. Yet solar physicists say that the mass density at the Sun's core is 160,000 kg per cubic meter. They are talking nonsense, given that the hydrogen atom, when ionized, splits into a free proton and a free electron.

If the Sun is at a temperature of the order of 6000 Kelvin throughout its interior, then everything makes sense, if only we can accept a new source of energy operative at or below that temperature, whether we think of the Fleischmann and Pons theme or the theme you term the **Aspden Effect** that builds on the radial charge displacement feature.

I have let myself get carried away but trust you will understand. For my part, my strategy now is to pursue my motor efforts to prove beyond doubt that we can tap energy from the quantum underworld by the phase-lock (the **Aspden Effect**) involving what governs the Bohr magneton in a ferromagnet and then complement that by challenging the hot fusion

world about their belief that our Sun is as hot in its core as they imagine it to be.

[Dr. Aspden added the following:] I now see the topic as even more important as a way of challenging the hot fusion hostility towards cold fusion. It seems manifestly logical to regard the contact of the K-electron shells of adjacent hydrogen atoms as inducing ionization. Imagine two hydrogen atoms with their electrons colliding so as to arrest one electron with the other, gaining energy which allows it to move away from its associated proton. The atom depleted of energy will recover somehow (by tapping energy from the quantum underworld), because you cannot escape from the fact that the hydrogen atom strives to keep its state of perpetual electron motion. However, the electron that got away in the ionization event will find itself recombining with a proton and that generates photon emission. So it seems to me that the Sun is really an engine which taps energy from the quantum underworld and radiates that energy in a process that keeps within the 6000K (or rather 5800 K) temperature of the Sun that we see. This insightful observation is supported by Dr. Harold Puthoff's description of the stability of the hydrogen atom by having the orbiting electron tapping energy from the same "quantum underworld" or Zero-Point Energy to maintain its eternal circulation without falling into the Hydrogen nucleus. Ed.]

### LETTER FROM M. BURTT IN INDIA

# Without Any Maker

Kirschner, the famous astronomer had a scientist friend visiting him. The friend professed disbelief in God. One day, this friend was admiring a working model of the solar system that stood upon a table. By turning a handle, the planets could be made to revolve in their respective orbits around the sun.

"Very ingenious indeed," he remarked. "Who made it?"

"Oh! Nobody in particular," replied Kirschner.

"No, really tell me. I want to know who made it."
"Nobody made it, it just made itself."

The friend began to see the point and was annoyed. "I see you are trying to be funny." "Is it not rather you that are funny? You cannot believe that this model made itself, and yet you can believe that the real sun and moon and stars, the vast universe in fact, came into existence somehow without any maker!"

### LETTER FROM SHIUJI INOMATA

(President, Japan Psychotronics Inst., Niigata, Japan)

Japan Technology Transfer Association (JTTAS), which is a non-profit organization under the wing of Japan's MITI (Ministry of International Trade and Industry), has set up the Committee for the Industrial Application of Ki-Energy. The Chairman of the committee is Dr. S. Inomata, JPI President, and former MITI scientist.

The purpose of the committee says that energy policies have been stalemated, because of the environmental and global warming problems. But by the presentations and discussions at the 1st and 2nd Int. Symposium on Consciousness, New Medicine and New Energy, 1996 and 1998 in Tokyo, the existence and the applicability of clean and limitless energy which has not been considered within the framework of conventional physics has become clear. This energy could be called "Ki-Energy" from the standpoint of Eastern philosophy, and its existence has become evident from the reorganization of the conventional physics.

In view of these situations, this committee is to propagate the "New Paradigm Science" theories which can explain this new energy process and the R&D information about N-Machine and other Over-Unity energy devices to industry personnel and to MITI bureaucrats.

JTTAS is also to organize a symposium for industries and science-technology community. JTTAS is located in Akasaka, Tokyo. The secretary is Mr. T. Takamori. Tel. (03) 5573-2701 Fax (03) 5573-2722.

Dr. Brian O'Leary, Hawaii, USA, and Dr. Beverly Rubik, San Francisco, USA, are the overseas advisory members of this committee. (From *JPI NEWS*, April 1999)

For the Ki-Energy, refer to S. Inomata, "Science of Consciousness and New Scientific World-View - We are in the midst of the 2nd Copernican Revolution," *J. New Energy*, vol 2, no 3/4, 1997.

[Note: MITI is the organization that sponsored Japan's work on "New-Hydrogen Energy."]

# LETTER FROM ALEXANDER S. LABOUNSKY

RE: Is Infinite Speed the Only Option?

Thanks for the reference to the Shipov paper. That name – as an author – sure does sound familiar. The infinite and near-infinite propagation superluminal condition was speculated upon by Whittaker in 1903 relative to longitudinal wave phenomena – specifically gravity transmission. There are a number of papers of more recent vintage dealing with this subject – some of which are those authored by Rodriques of South America (I think Brazil). Whatever I wrote on this was inspired from these sources.

I agree that any velocity that is extremely large relative to **c** is, for all intents and purposes, about as good as you are going to get to infinite velocity and is, in the practical sense, what's needed in the concept of simultaneous influence on all spatial points by quantum potentials (QP). You don't even have to go to straight-line physics journals for the infrequent article on superliminality.

Earlier in the 1990's, articles were published in IEEE society transactions and in trade journals, such as Microwaves and RF, the articles of Professor Ishii of Marquette University in which he documented meticulous lab measurements of the time to receive the leading edge of a pulse of microwave energy launched from one end of a well-matched, low-VSWR waveguide towards a receiving probe near the other end of the waveguide where a matched dummy load was located. The exact length from the launch probe to the receiving probe was measured down to the

last millimeter. The transit time was measured with documented-calibrated test instrumentation down to the last picosecond. The ratio of calibrated-measured distance to the calibrated-measured transit time was calculated and found to exceed **c** non-trivially -- to the tune of 40% and more above **c**.

The full details are disclosed in those articles. Of course these articles were attacked violently by many letters to the editors, as would be expected!

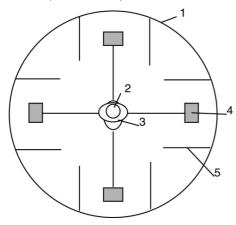
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# LETTER FROM OLIVER PLUNKETT

# **Bumper Power**

Overbalancing weights produce bumper power. The arrangement:

- 1. Wheel
- 2. Shaft
- 3. Ovals with arms
- 4. Arm weights
- 5. Bumpers
- 6. Governor (not shown)



Action:

When the wheel is set in motion, ovals with arm weights overbalance and swing into bumpers non-stop.

(published abroad 10 May 1999)

Oliver Plunkett Gospel Oak, London England

# SENATOR CONRAD BURNS SUPPORTS NEW TECHNOLOGY

Courtesy Wayne Powell

The following letter to INE-member Wayne Powell from U.S. Senator Conrad Burns represents a major event in INE's continuing efforts to present the truth of new-energy developments to DOE and to the Congress of the U.S. Special information has been previously sent to Senator Murkowski (Alaska), Chairman of the Energy and Natural Resources Committee, and to committee staff leaders. A great deal of praise should go to Richard Shamp, member of the National Republican Committee, for his efforts in Washington, D.C. to educate selected elected and appointed officials on new-energy developments.

# Dear Wayne:

Thank you for your recent letter on the nuclear waste dilemma facing the nation. I appreciate your thoughts.

I do sit on the Senate Energy and Natural Resource Committee which oversees the Department of Energy, and I am aware of much of the research you cite. In fact, during our recent discussions on Yucca Mountain and the possibility of a nuclear waste repository at that site, I have had a number of conversations regarding the transmutation technology that you mention.

Following these discussions, it has been decided that we will be offering an amendment either in committee or on the floor that will create an office within the Department of Energy to administer the continued research and

development of transmutation to use the energy potential and to reduce the harmfulness of nuclear wastes. Additionally, this amendment will aim to ensure that we look at the potential of the waste before permanently putting it in Yucca.

Thanks again for contacting me. Please don't hesitate to call or write with any other concerns you may have. If you get an opportunity, please visit my web page at: http://burns.senate.gov/.

Sincerely, /s/ Conrad Burns United States Senator

# LETTER TO SENATOR MURKOWSKI'S STAFF

The following are excerpts from a May 26, 1999, letter to the Energy and Natural Resources Committee, chaired by Senator Murkowski:

Dear Sir.

As the editor of the Journal of New Energy, ...

Another aspect of the high-density, chargecluster technology is the ability of electron charge clusters to ionize gases (such as hydrogen) and transport the positive ions. Although the charge clusters carry only about one positive ion for each 100,000 to one million electrons, the number of positive ions can be quite large. With only a 5,000 volt potential, such a combined charge cluster can be accelerated to about one-tenth the speed of light. It is classical physics that positive ions (such as protons from hydrogen gas) impacting a target at one-tenth the speed of light will create nuclear reactions. Therefore, Trenergy, Inc., a Utah company, is developing technology for the on-site stabilization of high-level, radioactive wastes - such as spent fuel pellets.

Obviously, the development of these new technologies should be of considerable interest to your committee and, of course, to Senator Murkowski. We would be pleased to provide you with much more detailed information if you are interested.

Hal Fox, Editor, Journal of New Energy

[It may only be coincidence, but the above letter did precede the favorable committee vote to leave the spent fuel pellets at the nuclear-powerplant sites where they are currently stored. Ed.].

# Meetings

# MEETING REPORT

# COMMENTARY ON CONFERENCE ON FUTURE ENERGY

by Jeane Manning

The Conference on Future Energy (CoFE), in Bethesda, MD, presented an interesting mix of viewpoints, and Tom Valone and Marc Whitford of Integrity Research Institute and their volunteers deserve credit. They broadened discussion by inviting speakers from traditional alternatives and from the U.S. Department of Energy.

The first guest speaker, Ken Shoulders, told how to use micron-sized clusters of electrons in a particular experiment, and offered to consult with any competent tinkerers who are willing to spend a mere \$60 apiece for materials to work in their home laboratories on it. The charge clusters "perform a low-energy phase transformation when interacting with solid material, propelling the electrons to high velocity without conventional heating." This new energetics is an amazing field of enquiry, and by offering to share a corner that he isn't using, Shoulders opened the gate to a new technology for interested experimenters.

CoFE lectures were videotaped. Other sources of information on the work of Ken Shoulders and his partner, Steve Shoulders, are a book on EV history, a CD-ROM, and of course the NEN newsletter.

One of the speakers at CoFE was Les Adam, who hosted the first such meeting I attended -

his 1986 "Meeting of the Minds" in southern California. Valone and Paul Brown spoke there. Adam is planning a Meeting of the Minds at the new AZ Industries facilities in Arkansas, August 20-22, 1999. (www.futuremag.net) Les and his brother Harley manufacture magnetic fuel-efficiency boosters, electric pulse drive cars, and helicopters powered by hydrogen peroxide.

Nuclear physicist Paul Brown, known for his betavoltaic devices, has nine other patents. He uses tritiated amorphous silicon as an energy-conversion semiconductor in the devices. Brown also has a process for photo-remediation of radioactive waste, which is undergoing government tests. Understandably since others are funding the research, neither Brown nor Shoulders talked about the newest aspects of their work. For his pioneering work, Brown received an award from Integrity Research Institute at the CoFE banquet.

Although traditional solar power was not represented at CoFE, there was a wind-power lecture. Kent Robertson said windmills are now as quiet as a bathroom fan, and are the fastest-growing alternative energy industry in the USA.

A newcomer to New Energy conferences, David Wallman, is an electrical engineer from the University of Nebraska, who uses high-voltage arc discharges in water containing carbons, and accesses the released gases. It seems to be an over-unity process. The unique hydrogen-based gas product has properties of a stable, versatile clean fuel. Wallman demonstrated his carbon-arc machine, cautioning us about the blinding light it emits.

Also on liberating internal energy from water, physicist Peter Graneau gave a paper co-authored by his son Neal of Oxford University and by George Hathaway of Toronto. Their arc discharges do work reliably in the laboratory, and cause cold fog explosions at 150 per cent efficiency. The next challenge is to produce electricity in a cost-effective way.

Tom Valone's slide presentation put Zero-Point Energy in historical perspective and included its basic physics, first patent, articles and experiments that have made NASA and the DOE reconsider ZPE.

Bruce Perrault talked about a Radiant Energy Generator and his valves which pump electrons from earth ground to be stored in high-voltage capacitors. "A second stage converts the HV charge to usable power at any frequency." Perrault said that an employee of a major auto company bought materials from his NuEnergy website, and now the company "reproduced my work" and has a patent pending.

A journalist who writes for mainstream publications listened to CoFE speakers, then shared his insights at the appropriate time - the feedback session at the end of the two days of lectures. His feedback was that journalists are unimpressed with a meeting that includes "UFO" among its scheduled topics, and/or includes speakers who seem to be more in the mode of selling products than of presenting knowledge.

Dr. Steven Greer did use the U-word in his presentation "Evidence of Free Energy Suppression." He commented wryly that when people go to a UFO conference and talk about free energy, they are told to not talk about wacky stuff because the UFO researchers want credibility for their conference. Meanwhile, "If you go to a New Energy conference and talk about UFOs, someone says 'don't talk about that; it's rubbish; it's crazy; it's lunatic fringe. We want to be credible.' In reality it's two sides of one coin. The pot is calling the kettle black too. because there's plenty of fringe nonsense in both movements." Greer is the strategy man for an inventor of an electromechanical overunity device, but his speech also led up to the suggestion to "Tell your congressman to get a disclosure of covert projects."

Paul Pantone demonstrated his GEET Fuel Processor, an invention intended to do away with carbon exhaust, and said a manufacturer was ready to go on a 16-kilowatt variable-speed model for boats. The invention's possibilities listed by Pantone included: burning tires without emitting polluting vapors, running an 18-wheeler truck on gasoline, and adding oxygen to an environment.

David Goodwin of the U.S. Dept. of Energy's Office of High Energy and Nuclear Physics

talked about cleaner fuels and vehicle improvements, advanced batteries, fuel cells materials and electronic materials - his area then reported on a Breakthrough Propulsion Physics conference. Goodwin staved calm when a questioner said the government "sabotages free energy" while mega-corporations get taxpayers' money. "I do not understand the politics," Goodwin replied. Regarding zero point energy, he acknowledges that it is a future energy possibility, but "has a long way to go." He works on applications and development of technologies, while ZPE research is basic science, he said. It seems DOE is not mandated to do that. Nevertheless, the audience apparently appreciated the good will and courage shown by Goodwin's attendance at CoFE - at the end of his talk he was strongly applauded.

Thomas Van Flandern, author of <u>Dark Matter.</u> <u>Missing Planets and New Comets.</u> gave a lecture, "Complete Gravity Model and Free Energy," that was a highlight of the conference for many. He cited Phys.Lett.A (1,1,99) in backing up his statement that propagation of gravity has been shown to exceed the speed of light. "The LeSage interpretation of particle-gravity is favored by new findings, suggesting that propulsion and gravitational shielding is possible."

There were other highly qualified speakers., especially in the field of research which Edmund Storms describes as Assisted Nuclear Reactions. Storms, professor George Miley, Eugene Mallove and Robert W. Bass gave workshops on aspects of the field. "Cold fusion" researchers will want to order those workshop audiotapes.

I came home with a CD on Zero Point Technologies (by Frank Znidarsic, 481 Boyer St, Johnstown PA 15906) that uses multimedia to show new ways of looking at cold fusion and related topics, and videos, including the new broadcast-quality Cold Fusion: Fire from Water video which premiered at CoFE by Infinite Energy. It's fast-moving as well as informative. I showed the 70-minute version to a lay group in Vancouver, Canada, and their attention never wavered.

### UPCOMING MEETINGS

# **INE'99 SYMPOSIUM FOR NEW ENERGY**

August 27 & 28, 1999 Salt Palace Convention Center (Downtown Salt Lake City, Utah)

Register by August 15, 1999 us\$100.00 Register at door us\$150.00

Contact: Robyn

Institute for New Energy 3084 East 3300 South

Salt Lake City, Utah 84109-2154

Phone: 801-466-8680 Fax: 801-466-8668

E-mail: <halfox@slkc.uswest.net>

Key speakers will include: Dr. Ruggero Santilli, Tom Bearden, Moray King, Hal Fox, with introductions by Dr. Pat Bailey, Pres of INE. Topics include: The new EM Mathematics (a major announcement), Charge-Cluster Technology (EV-ology), Power from Collapsing Hydrogen Atoms, Progress in Cold Fusion, Thin-Film LENR, and other energy-related papers.

# CALL FOR PAPERS INTERNATIONAL FORUM ON NEW SCIENCE

Now preparing for the 10th Annual International Forum on New Science, to be held in Fort Collins, Colorado, October 21-24, 1999. We are finalizing our speakers list, and cordially invite your members and readers to submit 400 word abstracts for papers to be delivered at the Forum. We encourage professionals, para-professionals, educated lay-persons and those with unique or valuable information or accelerated insights in the areas of New Science (New Energy, New Health, New Spirituality, New Psychology, New Economics, New Paradigms, New Inter-Planetary Studies, etc.), to submit abstracts right away. This is a professional Forum, open to the public.

We anticipate that this 10th Forum is going to be a very high-minded event. You'll hear more from us as the year unfolds. Please SEND US YOUR ABSTRACTS, or Contact us: IANS, 1304 S. College, Fort Collins, CO 80524; 970-482-3731; FX.: 970-635-0888; e-mail: lucie@frii.com.

# 34th IECEC Intersociety Energy Conversion Engineering Conference

August 1-5, 1999

Hotel Vancouver Vancouver, British Columbia, Canada

# "Engineering an International Energy Strategy"

This conference provides a forum to present and discuss engineering aspects of energy conversion, advanced energy conversion systems and devices, energy utilization and efficiency, environmental issues, and policy impacts on the research, development and implementation of energy systems. Papers dealing with all engineering aspects of the general topical areas above are welcome.

General Chair: Dr. Jerry Beam Air Force Research Laboratory

Ph: 937/255-6226 Fax: 937/476-4781

Email: beamje@wl.wpafb.af.mil

Program Chair: Michael G. Schneider

Sundstrand Corporation Ph: 815/394-4952 Fax: 815/394-3897

Email: mgschneider@snds.com

### Sponsors:

Society of Automotive Engineers (SAE) - 1999 Conference Administrator; American Institute of Aeronautics and Astronautics (AIAA); American Society of Mechanical Engineers (ASME); American Nuclear Society (ANS); American Institute of Chemical Engineers (AIChE); Institute of Electrical and Electronics Engineers (IEEE)

# INSTITUTE OF NUCLEAR MATERIALS MANAGEMENT

40th Annual Meeting, July 25-29, 1999 The Pointe Hilton at Squaw Peak, Phoenix, Arizona

The 40th Annual Meeting will provide attendees with a professional forum for the exchange of the latest technical information in nuclear materials management. The meeting will address all aspects of nuclear materials management. Can be reached at INMM Headquarters at (847) 480-9573; Fax (847) 480-9282

# 4TH ASTI WORKSHOP ON ANOMALIES IN HYDROGEN / DEUTERIUM LOADED METALS

22-24 October 1999 Hotel Villa Riccardi, Via al Monte 7, Rocca d'Arazzo(AT)

E-mail: mr.collis@physics.org Web site: netcity.it\coldfusion

The entire hotel is already pre-booked for the nights of 21, 22, 23 so we will make any reservation on your behalf. Accommodation will cost attendees just 45,000 lire per night (about \$25).

This year there will be a workshop fee of 250,000 Italian lire as a contribution towards meals which will be provided by the organization. All participants will receive a copy of the Proceedings of the 3rd Workshop published by the Italian Physics Society (Societa' Italiana di Fisica). Notwithstanding the introduction of the workshop fee, the cost of attending the workshop may even be lower than in previous years because of the lower board and accommodation costs.

If you would like to present a paper, book a room, or simply attend the workshop, please contact me as soon as possible because space is limited.

Check out the website for the latest details.

Yours sincerely Bill Collis (Local Organizer)

### **EXOTIC RESEARCH CONFERENCE**

New Location & Dates: Phoenix/Mesa, Arizona, July 22-25, 1999

http://www.exoticresearch.com

Conference Location: Holiday Inn, 1600 South

Country Club Drive, Mesa, AZ 85210

Hotel Reservations: (602) 964-7000, rooms \$59.

The Exotic Research Conference scheduled in Seattle for March 25-28, 1999 has been changed to Phoenix/Mesa, Arizona. July 22-25, 1999. Those who previously preregistered will be contacted individually to make arrangements for refunds or transference of registration to the Phoenix Conference. If you would like to contact me, I can be reached at (520) 424-3581. http://www.exoticresearch.com

SEVENTH RUSSIAN CONFERENCE ON COLD

**NUCLEAR TRANSMUTATION (RCCNT-7)** 

The Organizing Committee of the Seventh Russian Conference on Cold Nuclear Transmutation (RCCNT-7) hereinafter expresses its deep apology and notifies you about rescheduling the Conference. It will be held on September 26 through October 3, 1999. The reason for the change is the situation with the International Cold Fusion Conference in Italy that has also been rescheduled for 2000.

The Conference is going to take place in hotel Olimpiyskiy in Dagomys near Sochi (one of the best Russian resorts on the shore of the Black Sea) on September 26 through October 3, 1999.

The program of the Conference includes the following subjects: 1. Experimental researches of Cold Fusion and Nuclear Transmutation; 2. Cold Fusion and Nuclear Transmutation theoretical models; 3. Cold Fusion applied technologies and devices.

The languages of the Conference will be Russian and English. If you want to take part in our Conference you should inform me by E-mail or fax until July 1 for I will be able to organize your providing with visa and hotel reservation. Please inform us of your e-mail address.

The registration fee of \$900 for participants covers: - conference proceedings and program; - a transportation from Sochi airport to hotel and back; - a hotel stay in Sochi; - the daily meals (breakfast, dinner and supper) during on September 26 through October 3; - the organizing fee.

Phone:(095) 464-78-81, (095) 946-15-51 P.O.Box 169 "Erzion" Center 105077 Moscow Russia Fax:(095) 151-89-65

E-mail: prfnart@hotmail.com

# **Commercial Column**

The following companies (listed alphabetically) are commercializing cold fusion or other enhanced energy devices: [Listings with your additional copy, or boxed, for small annual service fee.]

# **COMPANY**: PRODUCT

American Pure Fusion Engineering and Supply: Warren Cooley, 1-800-789-7109 or 503-585-6746. Email to: Coolwar@aol.com

**Clustron Sciences Corp.**: Contact: Ron Brightsen, 703-845-8531.

**ENECO** is in the business of commercializing the exciting new field of low energy induced nuclear reactions in solids via patent licensing, joint-ventures, and co-operative research. ENECO, University of Utah Research Park, 391-B Chipeta Way, Salt Lake City, Utah 84108 USA. Contact Fred Jaeger, Voice 801-583-2000, Fax 801-583-6245. Email: jaeger@ENECO-USA.com

Fusion Information Center (FIC): Research and development of new energy systems. The world's most complete resource depository for cold fusion research information, as well as other new energy research including zero-point energy; space energy research; electronic, electromagnetic, and mechanical over-unity devices and transmutation. We are the publishers for *New Energy News*, and *the Journal of New Energy*. Voice 801-466-8680, Fax 801-466-8668. Contact Hal Fox.

**E-Quest Sciences**: Contact Russ George, FAX 415-851-8489.

German Association for Vacuum Field Energy: DVS-Secretariat, Feyermuehler Str. 12, D-53894 Merchernich, Germany. Tel: 011-49/(0)2443-8246 Fax: 011-49/(0) 2443-901880 E-mail: dvs@gptec.com Internet: www.gptec.com/dvs.

**Holotec AG**: Clean Energy Technology, contact André Waser, Gen. Mgr., Bireggstrasse 14, CH-6003, Luzern, Switzerland. Phone 011 41-41 360 4485, or Fax 011 41-41 360 4486.

**Hydro Dynamics, Inc.**: Rome, Georgia. Contact James Griggs, Voice 706-234-4111 Fax 706-234-0702.

**JET Energy Technology, Inc.**: Energy Production and Utilization and Control. Weston, MA. Contact Dr. Mitchell Swartz, Voice 617-237-3625. Fax 617-237-3625. http://world.std.com/~mica/jet.html

Labofex, Experimental and Applied Plasma Physics: Ontario, Canada. Contact Dr. Paulo N. Correa. Tel 905-660-1040 Fax 905-738-8427

**Magnetic Power Inc.**: Sebastopol, CA. Contact Mark Goldes, voice 707-829-9391, Fax 707-829-1002.

Nova Resources Group, Inc.: Denver, CO. Call Chip Ransford. Phone 303-433-5582.

**Trenergy, Inc.,** is developing new technology to stabilize high-level radioactive wastes. Contact at 3084 East 3300 South, Salt Lake City, UT 84109, Voice 801-466-8680, Fax 801-466-8668.

**UV Enhanced Ultrasound**: Hong Kong. FAX 852-2338-3057.

"YUSMAR" Scientific-Commercial Company: President: Dr. Yuri S. Potapov, 277012 Kishinev, Moldova. Phone and Fax 011-3732-233318.

**Zenergy Corp.**: Founded in 1996 to facilitate the introduction of commercially viable energy alternatives. 390 South Robins Way, Chandler, AZ 85225. Contact Reed Huish, 602-814-7865, Fax 602-821-0967, e-mail: info@zenergy.com

Note: The Fusion Information Center has been acting as an information source to many of these companies. We expect to augment our international service to provide contacts, information, and business opportunities to companies considering an entry into the enhanced energy market.

# **INFORMATION SOURCES**

**Advanced Energy Network Newsletter**, quarterly. Advanced Energy Network, P.O. Box 691, Rondebosch 7700 Capetown, Rep. South Africa.

Antigravity News and Space Drive Technology, bimonthly newsletter, pub. J.E.Cox Enterprise, P.O. Box 655, Marietta, GA 30061-655 (Phone 770-218-9693). Per year \$36. U.S., \$48 foreign.

**Cold Fusion Times**, quarterly newsletter published by Dr. Mitchell Swartz, P.O. Box 81135, Wellesley Hills MA 02181. Home Page: http://world.std.com/~mica/cft.html

*Cycles*, an R&D newsletter, published by Dieter Soegemeier, Editor, GPO Box 269, Brisbane, QLD.4001, Australia. Phone/Fax: +61 (0)7 3809 3257

**Electric Spacecraft Journal,** quarterly, edited by Charles A. Yost, 73 Sunlight Drive, Leicester, NC 28748.

Electrifying Times, 3/year magazine. 63600 Deschutes Market Rd, Bend, OR 97701 541-388-1908, Fax 541-388-2750, E-mail <etimes@teleport.com> www.teleport.com/~etimes/

**Elemental Energy**, monthly newsletter, edited by Wayne Green, 70 Route 202N, Petersborough, NH 03458. Email: <design37@aol.com>

Foundations of Science, free newsletter pub. 4-6/yr., ed. David L. Bergman. Common Sense Science, Inc., P.O. Box 1013, Kennesaw, GA 30144-8013. 770-565-5504 < Dbergman@CompuServe.com> www.cormedia.com/css

**Fusion Facts** has become a section in the *Journal of New Energy*.

**Fusion Technology**, Journal of the American Nuclear Society, edited by Dr. George Miley, 555 N. Kensington Ave., La Grange Park, IL 60525.

Future Technology Intelligence Report (FTIR), monthly newsletter, making available technological information now omitted from establishment media. Back issues available at substantially lower cost on the InterNet at <www.tarapublishing.com> FTIR, P.O. Box 2903, Sacramento, CA 95812 <ASu2431426@aol.com>

**Institute for New Energy (INE)**, organization to promote and help find funding for new energy research.

Visit our **Home Page**: www.padrak.com/ine/ which contains many important scientific papers and current reports on all areas of research.

E-mail: halfox@slkc.uswest.net ine@padrak.com

Salt Lake City, Utah. Voice 801-466-8680,

Fax 801-466-8668.

**New Energy News** monthly newsletter for INE, highlighting the research and development in the worldwide new energy arena. Edited by Hal Fox.

Infinite Energy, bi-monthly magazine. P.O. Box 2816, Concord, NH 03302-2816. Voice: 603-228-4516. Fax: 603-224-5975 E-mail 76570.2270@compuserve.com

A.Keith Brewer International Science Library, a non-profit organization having a Tesla collection; new energy books, publications and videos; one of the German Association of Vacuum Field Energy archives. 325 N. Central Ave., Richland Center, WI 53581; Phone: 608-647-6513; FAX: 608-647-6797; e-mail: <a href="mailto:drbrewer@mwt/net:">drbrewer@mwt/net:</a> web site: <a href="mailto:www.mwt.net/~drbrewer">www.mwt.net/~drbrewer</a>.

**Journal of New Energy**, quarterly, presenting papers representing the new areas of energy research, leading-edge ideas in the development of new energy technology, and the theories behind them. Published by the Fusion Information Center, Inc. Editor: Hal Fox. Address & phone above.

KeelyNet BBS - Jerry Decker, 214-324-3501 Internet: www.keelynet.com E-mail: jdecker@keelynet.com

Planetary Association for Clean Energy Newsletter, quarterly, edited by Dr. Andrew Michrowski. 100 Bronson Ave, # 1001, Ottawa, Ontario K1R 6G8, Canada. Web page: <a href="http://energie.keng.de/~pace">http://energie.keng.de/~pace</a>

**Positive News and Living Lightly**, quarterly, edited by S. Crockett-Burrows. The Six Bells, Bishops Castle, Shropshire SY9 5AA UK. Tel: (01588) 630-121 / 122

**Space Energy Journal**, quarterly, edited by Jim Kettner & Don Kelly, P.O. Box 1136, Clearwater, FL 34617-1136.

The above list of commercial and information sources will be growing. New listings will be added as information is received. Send information to *NEN*, 3084 East 3300 South, Salt Lake City, UT 84109.

# Free Energy: The Race to Zero Point

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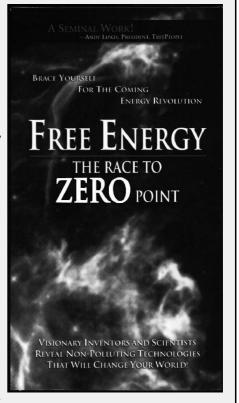
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Order from: FIC, 3084 E. 3300 South, Salt Lake City, UT

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