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PROMOTION BY DESTRUCTION

By Hal Fox, Editor

One of the heartening aspects of the development of the technology of cold fusion has been the willingness of most scientists to be mutually supportive in the presence of organized efforts to destroy cold fusion. It appears that greed, jealousy, or a naive idea of corporate strategy has now begun the destructive impact of hiring lawyers to attack competitive cold fusion inventions.

We greatly regret to report that the Clean Energies Technologies, Inc. has directed attorneys to file an objection to the issuance of the Pons-Fleischmann patents in Europe. What can possibly be the concept behind this technology destroying decision? The background is that almost no U.S. patents on cold fusion have issued to any inventors in the U. S. except to Dr. James Patterson. By contrast over a hundred patents on cold fusion have issued in Japan. The reported reason for the Patterson patents to issue has been that he requested special treatment due to his advanced age. In addition, it is apparent that the patents do not advertise that the patent applications were cold fusion inventions.

This editor has been among those many persons involved in the development of cold fusion technology and other enhanced-energy systems who have helped build a consortium of mutual support among many inventors, scientists, and corporate groups. This mutual support is designed to counter the intense anti-cold fusion efforts funded by U.S. scientists whose careers have been supported by taxpayer funds. The end result has been that the group seeking to destroy cold fusion has been successful in preventing the patent office from processing the over 300 patent applications and also successful in preventing the use of government funds to be allocated to cold fusion.

An additional result of this attack against cold

fusion has been the reduction of funds to hot fusion research by over 250 million dollars per year. Had this same group made the suggestion that just five percent of the fusion budget be applied to investigate cold fusion, there would have been great progress made by the combination of both scientific groups working in harmony. Jealousy and greed is seldom a win-win combination.

This editor suggests that the decision by CETI management will end up being just as disastrous to the success of the **Patterson Power Cell™** as the misguided efforts of the hot fusioners to try to destroy cold fusion. It is forecast that the CETI group will be lambasted and severely criticized in every publication and every group meeting of new-energy adherents except where CETI advertising dollars compromise editorial comments. Of course, those who have been attacking cold fusion will rejoice at this schism in the ranks of the cold fusion adherents. What better can the hot fusioners ask for than that the minuscule amount of funds available to the development of cold fusion be devoured by senseless internecine fighting.

The decision by CETI has come at the same time that new discoveries and new inventions have been announced, or are being readied for announcement, that are highly competitive to the CETI technology. CETI by their action is destined to become roadkill on the road to the development of new-energy technology. Meanwhile, we are devoted to the combined success of all new-energy groups who

continue to strive to solve the world's energy problems.

[This Editorial was faxed to the President of CETI, and he was invited to respond in writing, to be published with this Editorial. As yet, he has not responded. -Ed.]

THE NEW ENERGY SPECTRUM

Harold Aspden

For several years now, since I woke up to the prospect that one day our world may derive its power needs from the quantum activity of the omnipresent aether, I have tried to correlate information about the energy anomalies that I find particularly relevant to my interpretation of aether physics. Readers of the April 1997 issue of *NEN* will see mention of my latest Energy Science Report No. 10, which has been my way of reporting on my research interests in recent times. That Report shows that the New Energy Spectrum extends into the biophysical world of the human body, which seems to exhibit, deep in its molecular structure, a form of room temperature superconductivity and even a microscopic motor action in the our body cells.

I have been struggling, however, to keep at my experimental pursuits on magnetism, reluctance motors, and what I call 'vacuum spin', whilst trying to generate interest in my early theoretical research on the aether topic, and whilst keeping abreast of developments that I hear about from the world at large. I wish here to comment on three topics that I believe contribute to the New Energy Spectrum. I had planned that two of these would be the subjects of my Energy Science Reports Nos 11 and 12. Also I intended to keep writing such Reports until I had exhausted the material I have in my files, particularly on the themes of cold fusion and thermoelectricity. In any event, I will henceforth be completing this program by publishing instead on my Internet web pages. However, *NEN* readers may like to have some hint concerning my plans for three of these items.

Common sense should tell us that energy proper does not travel at the speed of light.

First, the experimental findings of Dave Gieskieng (Arvada, Colorado) deserve particular mention. Year after year he experimented in transmitting radio waves across deep canyons. He used an antenna designed to send an E wave in quadrature phase with an H wave and compared the results with conventional dipole antenna transmission which forces the E and H waves to propagate in phase. His findings convinced me that normal radio transmission sheds all the wave energy as heat over a short range from the transmitter but a quadrature phase EM wave (whether formed *ab initio* or as a residue of the conventional wave) still ripples on, not transporting energy, until intercepted by another antenna, **where energy in the local aether is then tapped**. Common sense should tell us that energy proper does not travel at the

speed of light. Just imagine two waves traveling through one another in opposite directions and think through the physics of the energy deployment without getting too embroiled in mathematical symbols concerning photons! The experimental findings of Gieskieng should not have been ignored!

Second, on my brainchild, the 'supergraviton' theme, and its relevance to warm superconductivity, cold fusion and permanent magnetism, I will be reporting on this subject in a very comprehensive way, drawing attention to the copious data which supports my proposition that the range close to 101 atomic mass units plays a special role in the dynamic resonance of molecular forms in perovskites, organic matter, etc., and atomic groups in metals. This is marginally below the supergraviton mass of 102.18 amu, because the supergravitons lose a little effect in spreading their action over several atomic sites. I believe thermal energy is regenerated as electricity in the truly resonant states that one can then attribute to certain substances. I will, however, be pointing to recorded evidence of the tuning effects of hydrogen absorption by such molecules.

Third, I will be drawing special attention to the 'free energy' implications of a U.S. patent just cited against one of my patent applications. It is U.S. Patent 4,435,663 granted to IBM and dated 6 March 1984. Its title is **Thermochemical Magnetic Generator**. What is described, however, is "a

thermochemical magnetic generator which uses hydrogen as a working gas and magnetic intermetallic compounds which absorb hydrogen as the working magnetic material." The description of the invention says that "thermomagnetic generators are devices that convert heat into electricity." The description further shows that hydrogen is not consumed, it is trapped in an enclosure and merely transferred forwards and backwards from one absorbing substance to another cyclically under the regulated control of heat input. The magnetic transitions induce output electricity in a coil wrapped around the chamber housing the working substance. This patent presents experimental data showing that the mere cyclical variation of hydrogen gas pressure resulting from the heat cycle will generate electricity. This is a room temperature device but the magnetic state of the intermetallic compound transits through the Curie temperature, converting ferromagnetic state to non ferromagnetic state, merely in response to hydrogen pressure, as thermally controlled. My interest is aroused by the fact that the chemical composition of the lanthanum pentacobalt working substance varies by absorption of hydrogen and a group of three such molecules, without the hydrogen, has a mass that is an integral multiple of 100.15. The operative cycle used by this IBM device cycles the composition between states

This patent presents experimental data showing that the mere cyclical variation of hydrogen gas pressure resulting from the heat cycle will generate electricity.

where each molecule has 3.5 or 4.5 hydrogen atoms, respectively. This makes the mass transition one between an integer multiple of 100.96 and 101.19 amu. As I see it this is evidence of the 'fine-tuning' of the supergraviton resonance and, indirectly, it does have bearing on the 'cold fusion' theme. However, do not rush to procure a copy of that IBM patent in the hope of building an energy generator. The practical potential seems to me to be very limited. What is important, however, is the experimental confirmation of the physical principles which I can see us harnessing in future power generators.

To conclude I mention that on March 26, 1997, I was granted GB Patent No. 2,278,491 entitled 'Hydrogen Activated Heat Generation Apparatus.' It has 18 claims and is part of my, albeit theoretical,

efforts to contribute something to the cold fusion theme. I also mention that the British Patent Office has notified me that on April 16th the grant of my GB Patent 2,283,361 will be published. This is entitled 'Refrigeration and Electric Power Generation.' It bears upon the thermoelectric theme, the subject of my Energy Science Report No. 3, but it also exploits the 101-102 amu supergraviton resonance theme by disclosing why oxidized polypropylene is a room temperature superconductor and showing how this can be incorporated in a thermoelectric power converter. A group of seven molecules in the chain structure of oxidized polypropylene $[C_3H_6O]_7$ has a molecular mass that is 4 times 101.5 amu.

Fusion Briefings

PLAYING THE LOSE-LOSE GAME

Associated Press staff, "Federal budget cuts pull the plug on N.J. fusion reactor," *Deseret News*, 5 April 1997, page A12.

Many (or maybe only some) scientists being funded by tax money for over the last four decades decided that cold fusion was not to be tolerated nor allowed to have any of the over \$500 million per year allocated to hot fusion. Now, it seems the hot fusion program is being closed down, for example the recent orders to shut down the Princeton Tokamak Fusion Test Reactor after 15 years of operation. The Princeton laboratory had been funded at \$111 million in 1992 and the next fiscal year the amount declined to \$52 million.

If, in 1989, the hot fusion scientists had suggested to the DOE that three percent of the hot fusion budget should be diverted to cold fusion, there would have been \$15 million per year spent on cold fusion by DOE.

In 1994, the mammoth reactor set the world record for fusion power by generating 10.7 million watts for about one second according to the article. That figures out to be 10,700 kilowatts for one second or about 3 kilowatt hours or 30 cents worth of electricity. It is estimated that the thousands of successful cold fusion cells have generated at least 1,000 times as much in **excess** electrical power. The Princeton Tokamak never did generate more power out than was being used for power input and power support for the unit. **If, in 1989, the hot fusion scientists had suggested to the DOE that three percent of the hot fusion budget should be diverted to cold fusion, there would have been \$15 million per year spent on cold fusion by DOE. If the hot fusion scientists had not arranged for a trumped-up denial of cold fusion by the ERAB subcommittee, and had reported the truth, there would have been corporate funds being spent. If the hot fusioners had not arranged for the patent office to decline all cold fusion patents so that no patents could be issued, the U.S. would have had a welcome lead in the world of cold fusion and its more rapid developments. However, the hot fusioners (or their leaders) played a game of selfishness, greed, and denial – a classical lose-lose game.**

Meanwhile, Randall Mills and the Blacklight Power, Inc. [see page 8], began [as Hydrocatalysis Power Co.] by showing that nickel and light water could produce excess heat. Mills then moved to nickel and hydrogen gas, demonstrated higher-temperature excess heat, obtained financial backing, and is now being supported by utility companies. Their stock has gone from \$0.75 per share to over \$1,000 per share! Blacklight Power will be one of the leaders in new energy. The Princeton Tokamak Fusion Test Reactor will be a footnote in history where science took a dead-end approach to the development of energy.

*For all sad words of tongue or pen,
The saddest are these: 'It might have Been!'
John Greenleaf Whittier (1807-1892)*

R&D Magazine LOOKS AT COLD FUSION

David Kestenbaum, "Cold Fusion – Science or Religion?" *R&D Magazine*, vol 39, no 5, April 1997, pp 51-56.

EDITOR'S SUMMARY

Quoting a balanced group of cold fusion experts and skeptics (Steven Jones, Eugene Mallove, Michael McKubre, George Miley, Douglas Morrison, et al.), the article is fair in its discussion of cold fusion. The Patterson Power Cell™ is featured in the article, as is George Miley's work to show that there are lots of nuclear reactions associated with cold fusion. Michael McKubre is quoted as saying, "The whole generation of people who have actually seen something with their own eyes will have to die, before cold fusion dies." This editor believes that the skeptics will die off first. We have sent some information to *R&D Magazine* commended them for printing this article and offering to tell them more about **Plasma-Injected Transmutation**.

GENE MALLOVE IN THE NEWS

If you stay in the theater long enough after enjoying the movie, **The Saint**, you will see Dr. Eugene Mallove, Science Advisor, in the long list of credits. Gene Mallove is quoted in the *Concord Monitor* (Friday, 4 April 1997, in article by Sarah Schweitzer, "Passionate About Cold Fusion") as saying: "People don't go to the movies to hear a science story. But they'll say 'I wonder why they're talking about cold fusion? I thought it was dead. Maybe those producers know something I don't know'."

Gene Mallove, "Fusion Confusion Runs Hot and Cold," *Wall St. Journal*, 31 March 1997, letter to editor.

Summary: Gene Mallove tells the *WSJ* that they have some errors in a Feb. 28 Marketplace article entitled, "How Do We Know Dolly Isn't a Hoax?" In this letter Mallove sets the record straight and tells *WSJ* readers that many scientists have replicated the cold fusion work of Pons and Fleischmann, especially McKubre and associates at SRI International and Lonchampt of the French Atomic Energy Agency, who replicated the boiling cell cold fusion experiment of Pons and Fleischmann. Mallove strongly states: "This careless abuse of the facts on so important a matter as our emerging energy future is inexcusable." Hurray for Gene Mallove!

SOLID-STATE PLASMA FUSION

Yoshiaki Arata, Yue-Chang Zhang (Arata Hall, Osaka Univ., Japan), "Generation and Mechanism of Solid-State Plasma Fusion (Cold Fusion)," *Koon Gakkaishi*, vol 22, no 1 (1996), pp 29-47 (in Japanese). *Chem. Abs.*, vol 124 (1996).

AUTHORS' ABSTRACT

When deuterium nuclear fusion takes place continuously in a solid, the tremendous released energy will heat the solid drastically and reaction products will be emitted spontaneously from and/or confined as the "frozen state" in the host solid. In other words, there are two kinds of reaction, i.e., energy release and product formation. The reaction should increase proportionally with an increase in the number of fusion reactions for a long period. As a result, a tremendous amount of reaction product, i.e. helium, should be accumulated in the host solid as the frozen state in ordinary temperature. Therefore, the Pd host solid was heated to high temperature in vacuum, and then a large amount of helium released from the solid was detected by mass spectroscopy. Namely, in the present experiment, the solid-state plasma fusion (cold fusion) was verified by the detection of a tremendous amount of helium as well as huge excess energy. It is theoretically demonstrated in detail that violent shaking of localized lattice in host-solid causes energetic deuterium "strongly coupled plasma" which enables generation of solid-state plasma fusion.

ACHIEVED FUSION

Yoshiaki Arata, Yue-Chang Zhang (Osaka Univ., Japan), "Achievement of Solid-State Plasma Fusion (Cold-Fusion)," *Proc. Jpn. Acad., Ser. B*, vol 71B, no 10, 1995, pp 304-309. *Chem. Abs.*, vol 124 (1996).

AUTHORS' ABSTRACT

Using a Quadrupole Mass Spectrometer (QMS), the authors detected a significantly large amount ($10^{20} \sim 10^{21} \text{ cm}^{-3}$) of helium, which was concluded to have been produced by a deuterium nuclear reaction within a host solid. These results were found to be fully repeatable and supported the authors' proposition that solid state plasma fusion (cold fusion) can be generated in an energetic deuterium strongly-coupled plasma (SC plasma).

This fusion reaction is thought to be sustained by localized "lattice-quake" in a solid-state media with the deuterium density equivalent to that of the host solid. While exploring this basic proposition, the characteristic differences when compared with ultra high temperature-state plasma fusion ("hot fusion") are clarified. In general, the most essential reaction product in both types of deuterium plasma fusion is considered to be helium, irrespective of the well-known and/or unknown reactions, which is stored within the solid-state medium in abundance as a residual product, but which generally can not enter into nor be released from a host solid at room temperature. Even measuring instruments with relatively poor sensitivity should be able to easily detect such residual helium. An absence of residual helium means that no nuclear fusion reaction has occurred, whereas its presence provides crucial evidence that nuclear fusion has, in fact, occurred in the solid.

NUCLEAR PRODUCTS

I.B. Savvatimova, A.B. Karabut, (NPO "LUCH," Podolsk, Russia), "Nuclear Reaction Products Detected at the Cathode after Glow Discharge in Deuterium," *Poverkhnost*, vol 1 (1996), pp 63-75 (in Russian). *Chem. Abs.*, vol 125 (1996).

AUTHORS' ABSTRACT

Impurity concentrations were measured in the Pd cathode (99.9% pure) before and after experiments in a glow discharge in D, H, and D + H by SMS, SIMS, and X-ray microprobe analysis. Changes in the concentration of some impurity elements (Ag, B, Ni, Zr, and Br) were observed upon changing the composition, the flux of the bombarding ions, and other parameters. The Ag concentration was maximally increased by a factor of 250 after the irradiation of Pd with D ions (to 35 mA/cm^2) in the analysis zone ($20 \text{ mm}^2 \times 10 \text{ }\mu\text{m}$) or by a factor of $10^4 - 10^5$ in local areas of $\sim 1 \text{ }\mu\text{m}^3$. Concentration of other elements were changed by a factor of 5-20 or $10^2 - 10^4$ in a $10\text{-}\mu\text{m}$ or $<1 \text{ }\mu\text{m}$ layer, respectively. The isotope ratio of B, Ni, Zr, Br, Ca, etc., and the mass ratio of 109/107 in surface layers of the cathode samples were changed.

ENERGY \neq NEUTRON EMISSION

José F. Fernandez, Fermin Cuevas, Miguel Algueró, Carlos Sánchez (Dip. Física Mats. C-IV, Univ. Autónoma de Madrid), "Experimental Investigation of Neutron Emissions During Thermal Cycling of TiD_x ($x \approx 2.00$)," *Fusion Tech.*, vol 31, no 2, Mar. 1997, pp 237-247, 32 refs, 8 figs, 4 tables.

AUTHORS' ABSTRACT

The production of neutrons from D + D reactions in thermally cycled titanium deuteride (TiD_x) ($x \approx 2.00$) is investigated in depth. Special attention is given to cubic-tetragonal (δ - ϵ) phase transition that TiD_x experiences near room temperature as a possible triggering mechanism of "cold fusion nuclear reactions." The (TiD_x) ($x \approx 2.00$) samples, possessing well-known properties about the δ - ϵ transition, are cycled at temperatures (from -60° to 60° C) where the phase transition takes place. The cold fusion signature is investigated by measuring the neutron flux of the sample during the experiments. No significant neutron signal above the background level is found during thermal cycling of the TiD_x samples. It is concluded that in the samples investigated, no correlation exists between the δ - ϵ transition and the trigger of the D + D reactions. Background deviations give an upper limit of the rate of the $D + D \rightarrow {}^3He + n$ reaction of $\lambda < 10^{-23}$ fusion/p·d·s.

EINSTEIN WOULD HAVE CALLED IT "COLD FISSION"

Chuck Bennett

In a newly released article by Moon [1], the author introduces the label of "cold fission" to describe the transmutation reactions associated with recent "table-top" experiments manifesting mass-energy release. Einstein would have welcomed this discovery as something different and better, because to the average person he is credited with a naive transition from $E = mc^2$ to the atom bomb. And he certainly was a compassionate pacifist who would rather see his postulate of mass-energy harnessed in a small table-top environment that is useful rather than an insidious device that can flash a city to oblivion in a split second.

Einstein [among others] reasoned that rest mass, m_0 , must have energy, m_0c^2 . This was later proven to be true from the initial discovery of isotopic mass change in beta decay all the way to modern mass-energy changes in fission and fusion. More recently, we have seen the discovery of how low-temperature fusion and transmutation releases subtle mass-energy within the lattices and electrolytes of new hydrogen energy systems. Some of these transmutation reactions have the characteristics of traditional fission, i.e., a splitting of atoms to lower atomic numbers having an overall loss in mass, and the subsequent release of excess mass-energy to account for the loss in mass.

The sequential triad of energetic triggers consisting of a conventional activation such as chemical or electromagnetic, that triggers a fission reaction that, in turn, triggers a fusion reaction is the exact formula for the hydrogen bomb. But to have this reduced to a micro-scale that can be controlled in the laboratory to produce useful energy is a major step in the goal to safely harness the use of mass-energy. And the resulting fusions do not necessarily have to be d-d type fusion of pairs of identical isotopes. We have seen the release of energy in fusions of protons colliding into larger nuclei that produce benign isotopes that also result in the release of excess energy to account for an overall loss of mass of the sum of the constituents [e.g., Neal-Gleeson Process].

Thus in summary, all types of known and newly discovered mass-energy reactions are emerging from low temperature table-top experiments, including a new type of fusion consisting of collisions with protons or deuterium ions into larger atoms in lattices and/or electrolytes. Then we have a whole new system that is not in any textbook anywhere. This is why the application of known traditional fusion systems fails to explain the results of table-top mass-energy experiments in terms of the "Coulomb barrier" postulate.

New theories, new aethers, and new particles [2-12] have established a new science that goes back to where Einstein left off following the publication of groundbreaking and historical articles in 1905 [13,14]. In the interest of peace and "infinite energy," Einstein would have wanted it this way.

References:

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3. M. Twain, "Aether Workshop," preparation for Workshop, (to be held at Stanford University, July 18-20, 1997). Plasmatronix, Intl., P.O. Box E, Menlo Park, CA 94026, Phone 415-569-3299.
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12. C. Bennett, "Einstein's Mass Dilation as AEther Drag," to be published, March 1997.
13. A. Einstein, "On the Electrodynamics of Moving Bodies," *Annalen Derphysic*, vol 17, no 5, September 26, 1905, pp 891-921.
14. A. Einstein, "Does the Inertia of a Body Depend Upon its Energy?" *Annalen Derphysic*, vol 18, no 3, November 21, 1905, pp 639-641.

NEW PATTERSON-CRAVENS PATENT

US Pat. 5,607,563; **System for electrolysis**; James A. Patterson, Dennis Cravens; issued 4 Mar. 1997; appl. 4 Dec.1995; 16 claims, 2 drawing sheets.

Abstract: An electrolytic cell and system for electrolyzing and/or heating a liquid electrolyte

containing water having a conductive salt in solution flowing through the cell. The electrolytic cell includes a non-conductive housing having an inlet and an outlet and spaced apart first and second conductive foraminous grids connected within the housing. A plurality of spaced beds of closely packed conductive micro-spheres are positioned end to end within the housing in electrical contact with the first grid adjacent the inlet. The individual microsphere beds are electrically isolated from one another in the absence of the liquid electrolyte. The microspheres are generally uniform in size and density and include a plated layer formed of metallic hydride which is readily combinable with hydrogen or an isotope of hydrogen with hydrazine to form a conductive, preferably flash-coated metal layer. An electric power source in the system is operably connected across the first and second grids whereby electrical current flows between the grids within the liquid electrolyte.

Space Energy

FINNISH GRAVITY RESEARCH

Martin Gottschall, "Finnish Scientists Discover Artificial Gravity," *Nexus*, vol 4, no 3, April/May 1997, pp 37-40.

SUMMARY

This is a thorough account of the articles in both the *Skywatch* (8 Sept. 1996) and the (London) *Sunday Telegraph* (1 Sept. 1996) articles, which were nearly identical. The description of the discovery is reproduced in *Nexus*, from those articles. It goes on to discuss the current research in superconductors, likely experimental processes in, and replication of, gravity experiments along with anomalous observations. It is projected that the Finnish experiments produced a non-conservative field effect, from the *Sunday Telegraph's* description of the scientist's observations. The possible application of this technology to power generation is also discussed

Miscellaneous

RANDALL MILLS HITS THE BIG TIME

Maria Coole (staff writer), "Stock Offering Powers Energy Co.," *Sunday News*, Lancaster, PA, page D1.

With the promise of a new energy source, BlackLight Power Inc., Dr. Randell L. Mills' company (formerly known as Hydrocatalysis Power Corp.), has now filed its largest private stock offering (nearly \$5 million) in Pennsylvania. PacifiCorp Holdings Inc., the public utility company from Oregon, was its 1996 million dollar investor.

BlackLight's technical developments are impressing people with money and commercial savvy. Mills stated that numerous power companies have said that, if his process is validated, it will become a dominant power source for all applications. Mills claims it is already validated, with high over-unity claims in heat production in studies such as one run at Penn State University by Dr. Jonathan Phillips, professor of chemical engineering. Tests are being conducted at other facilities, also claiming large heat output, 100 to 1000 times higher than for burning the same amount of hydrogen.

With \$3.9 million already invested, and \$4.9 million in shares being made available this year, BlackLight is the best funded of all U.S. new energy R&D companies. Another EastCoast utility company is also making proposals to BlackLight.

"Refusing to see is more of a risk than taking a look at it," was a comment by a representative of Technology Insights, a California consulting firm. That is a statement that the DOE should realize is very true of much of new energy research.

NUKE WAKE ISLAND

Courtesy of Dick Champ

Lorraine Woellert, Staff Writer, "Nuclear Waste on Wake Island?" *Washington Times*, April 10, 1997.

EDITOR'S SUMMARY

Some friends of former U.S. presidents are seeking Congressional help for permission to make Wake Island a dumping ground for high-level nuclear waste from Russia. The idea of the corporation **U.S. Fuel & Security, Inc.**, is to fill Wake Island's lagoon with concrete and store containers of nuclear waste on the lagoon platform. The entire Hawaiian congressional delegation are against any such storage of nuclear wastes in or on Pacific islands.

NUKE NEVADA?

Courtesy of Dr. Robert Bass

Brian Greenspun, Editor, "Murkowski determined to sacrifice Nevada on nuke altar," *Las Vegas Sun*, April 10, 1997, pg A-1 and A-3.

EDITOR'S SUMMARY

U.S. Senator Frank Murkowski (Alaska) is chairman of the Senate Energy and Natural Resources Committee. As Greenspun says, "That's the gang which has been working so hard to shove the nation's civilian nuclear waste down Nevada's throat by threatening half the U.S. Congress with visions of lawsuits, lawyers and their own personal backyard dumpsite if they don't stick it to Nevadans this week." More than 80 nuclear power plants in the U.S. are busy creating **spent fuel pellets** which the U.S. government has the responsibility for handling. Currently, the spent fuel pellets are stored on-site. There is a great need for a process by which these fuel pellets can be reduced from high-level radioactive wastes to, at least, low-level radioactive wastes that are much easier to handle. Greenspun states: "And I would submit that there is no greater case to be made for the survival of our significant tourist industry than a nuclear-free environment in which our guests can feel confident that the water they drink and the air they breathe is free of radioactive contamination." Greenspun also comes up with a poignant plea: "Given enough time and resources, I am certain that 21st century science can come up with even better, safer, and more reliable solutions." Safer and more reliable than reprocessing or packaging, transporting, and storing for 10,000 years in Nevada.

It is a wonder of twentieth-century science that we have now found methods for the amelioration of radioactive wastes. Now if we can just get that information through both the scientific communities and to the politicians, we might just be able to solve the nuclear waste problems.

RALEY'S LAUNCHES FIRST LIQUEFIED NATURAL GAS FLEET IN CALIFORNIA

Raley's, the 87-store supermarket chain, will launch the first commercial fleet of liquefied natural gas-fueled trucks in the state of California. Ten new "Clean Air Machines" - representing 20 percent of Raley's trucking fleet - are due to roll out on the highways April 16 from Raley's Distribution Center in Sacramento, CA.

"We'll be taking about five *tons* of nitrous oxides out of the air annually," explains Michael J. Teel, president of Raley's. By purchasing the more expensive and experimental liquefied natural gas (LNG) trucks, Raley's is making a pioneering investment in environmentally friendly technology.

According to the California Trucking Association, liquefied natural gas reduces smog-producing nitrous oxide emissions by 60 percent compared to diesel fuel. Use of the LNG fuel also eliminates visible soot, contributing to cleaner air and cleaner-running vehicles.

"The new fuel will replace 100,000 gallons of diesel each year," says Teel. "We think this will make a significant contribution to the health of our communities. As a responsible local business, we think it's worth the investment we're making in a newer, cleaner technology."

Raley's contribution is augmented by a grant of \$600,000 from the Sacramento Air Quality Management District. The grant helps pay for the more expensive LNG trucks and for the building of an LNG refueling station. The station will be located at the Distribution Center and will be available for public use.

Cummins Engine Company, the world's largest producer of heavy duty diesel and natural gas engines, is designing and manufacturing the

engines. The engines go into Kenworth trucks, manufactured in Seattle, WA.

The trucks will be painted a "clean-air" blue with white clouds, distinguishing them as LNG-powered vehicles. A sign on each door of the cab reads "Raley's Clean Air Machine."

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COSMOLOGY NOTES

Greg Hodowanec

I. Some Further Mini-MRA Test and Remarks

These tests were made with the original Mini-MRA design. Basically; $f_o \approx 80$ kHz, $t_i + 5$ mH (5:1), $C_1 = 980$ pF (Ag-mica), $R_s \approx 3.3\Omega$ and $R_L = 1$ k Ω . The 25 MHz Scope was used in the evaluations - all waveforms **good** sinusoidal. My tube signal generator was used. See previous Notes for more details [for instance, *NEN*, vol 4, no 9, Jan 1997, pp 9-11; and vol 4, no 7, Nov 1996, pp 11-12].

A. Pertinent Test Data

<u>TEST</u>	<u>Pin</u>	<u>Pout</u>	<u>P.G.</u>
#1	1.61 mW	18 mW	11.2 x
#2	4.5 mW	49.2 mW	10.8 x
#3	9.8 mW	50.4 mW	5.2 x

Remarks:

- #1 Tube generator at full drive
- #2 Tube generator with 2.5 K slanted out
- #3 Tube generator driving 6AQ5 amplifier

B. 6AQ5 Tube Amplifier

The 6AQ5 was operated at a plate voltage of 105 volts only since that was only available from the original supply for the original pre-amplifier Phono unit. As a result of this very low plate voltage, the 6AQ5 amplifier became distorted at one peak at drives above 10 mW. A minimum plate voltage of 150 volts is normally required for the 6AQ5 tube. However, Test #3 showed that there was a limitation to the small pulse transformer used which was **not a dissipation limitation!**

II. REMARKS

1. The rough tests indicate that the power limitation of the small pulse transformer is most likely related to the **magnetic saturation** of the **small** ferrite core used here. The saturation effects start at about the 4.5 nW drive level and a 50 nW output level. At higher driver levels, there is **no** real increase in power output and thus a proportionate drop in power gain. These tests indicate that the nature and size of the transformer core is **most** important and the key element in the MRA, especially the Mini-MRA. The saturation effect is believed to be due to the factor that all **available** domains in the core which **can be "flipped"** at the resonant frequency are being flipped! These domains must be easily flippable for the MRA to be an efficient energy 'exacting' device.

2. That this effect may be so is indicated by the factor that if some additional ferrite is 'coupled' to the original core, there appears to be an **increase** in available power output with only **very slightly** degraded power gains. Adding a permanent magnet **externally** to the core appears to have **no** effect on the MRA performance. This would seem to indicate that the domains in the permanent magnet are fairly firmly 'locked' and thus quite difficult to 'flip.' McClain and Wootan, in their large version of the MRA, apparently were able to 'flip' the domains at higher drive levels and at certain frequencies. The domains in the Mini-version were found to be 'flippable' at all test frequencies with some being more effective than others.

3. These simple tests also appear to verify 'Sparky' Sweet's VTA as a version of the MRA device. In Sweet's case, the magnets were 'de-magnetized,' and also were 'conditioned' to 'flip' readily at some specific frequency, apparently 60Hz in his case. Here, the high 60Hz leakage flux (which is rampant) could possibly act as a 'pump' to flip the domains - possibly with the help of a **strong** local leakage field? Once interaction is obtained with the aether, ie., the universe, the interaction could **build-up** and become **self-sustaining!** Don't rule out 'Sparky's' accomplishments just yet - it may have been quite **real!**

4. As pointed out in a previous Note, the Swiss M-L device is most likely also a version of the MRA device. If permanent magnets were used in the **converter** unit, then perhaps operation has to be at some specific frequencies. If highly 'flippable' domain ferrite cores are used (unmagnetized) then the unit could be less frequency sensitive, possibly

more **effective** at certain frequencies in which they have been 'conditioned.' ala Sweet?

III. CONCLUSIONS

1. Simple tests (per Mini-MRA considerations) could lead to better understandings of the **coil interactions** in free energy devices based upon coils and magnets. These understandings could further lead also to an understanding of the Sweet VTA device and the Swiss M-L device, both of which apparently (?) have been shown to be effective (though not without some problems still to be resolved). Perhaps, these considerations might be involved in some of the other free-energy devices using coils.

2. I have been releasing 'speculative' remarks and some experimental results in the hope that some *NEN* readers will be able to follow up on this work. I am highly limited in my efforts, and while I will not yet drop these investigations, I always look forward to your **thoughts** as well as possible experimental results. The **simplicity** of these tests (with the certain precautions that I have pointed out) should enable many of you to readily investigate this phenomena and thus verify it to your satisfaction whether it is real or not. I very strongly believe the MRA-type devices to be real.

CONFERENCE NOTE:

Dr. Hans A. Nieper, Medical doctor and scientist, was the speaker at Temple University on March 17, 1997 for about 75 attendees at a conference sponsored by The Center for Frontier Sciences. Dr. Nieper provided his audience with information on Vacuum Field Energy. His presentation included a video of the ML converter operating.

TAPPING THE TORSION FIELDS OF SPACE

Don Reed

The report published in the March 1997 issue of *New Energy News* by Alexander Frolov regarding the Russian research on torsion fields [1] is potentially significant for the development of new

paradigms in physics and energy science. He recounts rare replicable evidence of the first official successful demonstration, known to this author at least, of the production of certain physical effects by the engineered coupling of electromagnetic fields to torsion or vacuum fields. These findings help place on a solid rational foundation previous speculations about these hypothetical fields, predicted primarily from a theoretical model. The following is a compilation of those research findings on torsion fields which not only complement the Russian model, but help corroborate or support evidence from various other key researchers of vacuum energy, and can, perhaps, provide helpful suggestions for ongoing experimental research efforts.

The remarkable series of papers by V. De Sabbata and M. Gasperini [2,3,4] have shown by positing a wave equation for torsion potential which is a nonlinear function of the electromagnetic field tensor, that torsion coupling can be produced if vacuum polarization is first achieved. This is due to the fact that torsion cannot couple directly to the photon field (standard Hertzian electromagnetic plane waves), but can couple to the spin fields of the electron and positron which are a product of vacuum polarization. Now, since a photon, according to quantum field theory, can disintegrate into a virtual electron-positron pair for a certain fraction of the time, the electromagnetic field producing the pair is thus affected, though indirectly by the torsionic background. It is then concluded that since there is no linear vacuum polarization for a traveling electromagnetic wave in empty space, an electromagnetic wave must propagate through another electromagnetic medium to produce torsion. This is quite similar to the milieu in which the Hutchison lift and disruption effects were produced [5]. Specifically, a propagating torsion wave can be produced if two polarized monochromatic plane waves are propagating at a right angle [3]. In this particular case, the solution for the torsion potential gives a monochromatic scalar wave function, and the space filled with electromagnetic radiation behaves like a dispersive medium for the propagation of torsion. This system is also reminiscent of Tom Bearden's description of the "scalar interferometry" process [6]. Those who want to experiment in this regard using two laser beams, should be advised that the choice of polarization mode is crucial for the possibility of torsion production [3].

What physical effects will constitute evidence of a torsion wave-coupling? Since the torsion potential is also a function of the gravitational constant, one could expect to observe a distortion in either gravitational potential or pace of time in the proximity of a torsion beam [7]. A noticeable change in the half-life of a radioactive substance, or alteration in the mass of an object could provide such a test. Also, since the torsion field produces the attraction of like electric charges [1], this unique property could provide an explanation for the formation of Shoulders' condensed charge units in which the Coulomb barrier is breached [8]. This is another system in which time compression or gravitational field changes should be looked for, as an adjunct to this process.

Moreover, if the condensed charge units are a solitonic product of torsion coupling, then torsion fields can represent a quantized vacuum impedance having a definite speed, direction, and spin, which can be topologically structured by certain electromagnetic geometries [9], or high-intensity field spark discharges [10]. Alexis Guy Obelensky, for one, has written excellently on such processes [11].

One final thought on another avenue of investigation which should be pursued. The property of torsion can be a measurable feature of specific vector fields in either a hydrodynamic or electromagnetic context. Basically, helicity or torsion characterizes the amount of twist or knottedness between the streamlines of the vector field. It is known that Beltrami-Trkalian vector fields, in particular, possess non-zero torsion. Please see reference [12] for more technical background on this subject.

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EDITOR'S COMMENTS

In looking for copies of the references provided by Don Reed, we found the following book: Venzo de Sabbata (Dept. of Physics, Bologna Univ., Italy) and C. Sivaram (Indian Inst. of Astrophysics, India), Spin and Torsion in Gravitation, c1994, World Scientific, Suite 1B, 1060 Main St., River Edge, NJ 07661, 313 pages, indexed. The book is highly mathematical. The thrust of the book is to try to link Einstein's General Theory of Relativity with **spin** in order to eventually achieve an improved understanding of gravitation.

The Preface includes the following remarks: "The spin of elementary particles manifested itself in several new effects in fundamental interactions such as splitting of nuclear energy levels and non-degeneracy of hadronic states in strong interactions, parity violations in weak interactions, etc. The fact that the effects of spin when considered in gravitational interactions can also lead to several interesting physical phenomena in both the micro- and macro-world is not so well known. The literature is mostly confined to specialized articles read by only those few directly working on the subject. Even most physicists working on gravitation theory are not much aware of the interesting consequences of spin-modified gravitation effects, especially those caused by

torsion which is the geometric effect of spin in space-time (analogous to mass causing space-time curvature)."

A descriptive figure for a torsional generator appears as Figure 1 in an article by Vladimir I. Kichigin, et al., "Torsional Fields and Electrochemical Processes at Metal-Electrolyte Interface," *J. New Energy*, vol 1, no 2, pp 27-31. We have written to Dr. Kichigin at Perm University in Russia and have asked for a survey article and for specifics on making and measuring torsion fields. The diagram from Kichigin's paper is reproduced below. Note that the rotating magnet **together with the solenoids** apparently generate the torsion field. One would suspect that the idea of the solenoids shown as open-ended coils suggests some type of scalar phenomena or that the coils are radiating high frequency signals. We will report more as soon as we learn more about this interesting phenomena. Kichigin's description is "Magneto-mechanical version of the torsion generator consists of a flat permanent carbide-cobalt magnet with the vertically oriented N-S polarity. The magnet is rotated about the axis by means of the electric drive. In the area of the permanent magnet position, perpendicular to the N-S magnetic axis, solenoids, generating transverse alternating magnetic field, are mounted. The system is placed

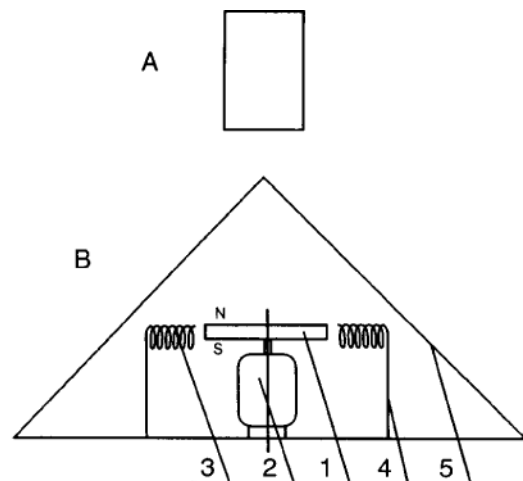


Fig. 1. Schematic diagram of the experimental arrangement.
 A - cell for measuring hydrogen permeability or electrode potentials
 B - torsional generator with permanent magnet (1), rotational electric drive (2), solenoid (3), connecting strip (4), and casing (5).

under a cone-shaped casing, made of insulating material, which is screened by metal foil and grounded." The shielding is apparently used to suppress an electro-magnetic radiation.

Many years ago, a Russian scientist, Albert I. Veinik, discovered a measurable physical field that could penetrate where all electromagnetic radiation was screened out. He called this radiation **N-Rays**. Due to the difficulty of reproducing Veinik's work, N-Rays were ridiculed, especially by Western scientists. It may be that the discovery of N-Rays was the first work with **torsion fields**. Today, when highly skeptical scientists want to ridicule something they compare the work to "**cold fusion, poly water, and N-Rays**." It may be that the poly-water phenomena is related to the recent discoveries that water has the capability of storing certain types of chemical [and other?] information – an explanation for the use of highly-diluted medicines used by homeopathic medical doctors.

1983 PATENT ON SPLITTING WATER

Courtesy of Dr. Andrew Michrowski, PACE

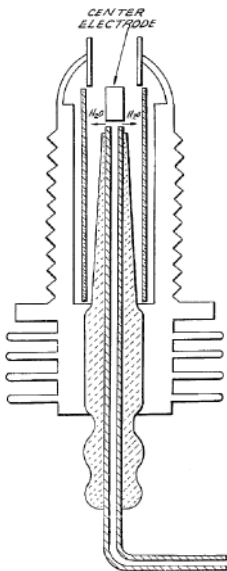
U.S. Pat. 4,394,230; "Method and Apparatus for Splitting Water Molecules;" Henry K. Puharich; issued July 19, 1983.

PATENT ABSTRACT

Disclosed herein is a new and improved thermodynamic device to produce hydrogen and oxygen gas from ordinary water molecules or from sea water at normal temperature and pressure. Also disclosed is a new and improved method for electrically treating water molecules to decompose them into hydrogen gas and oxygen gas at efficiency levels ranging between approximately 80-100%. The evolved hydrogen gas may be used as a fuel; and

the evolved oxygen gas may be used as an oxidant.

The accompanying figure illustrates the mechanism for producing the hydrogen and oxygen.



Editorial

POLARIZING THE VACUUM

By Hal Fox

Dr. Lambertson asked a very pertinent question. To paraphrase, "How do you polarize nothing?" This reminds me of a old ditty sung by a mouse:

*"To be a mouse is one thing
A silly and a dumb thing.
But vacuum, you are nothing.
You're not a thing at all!"*

Many things have poles, particularly magnets (N & S), electric charges (+ & -), and also electrets. Other type of **poles** can be interpreted in spins (up or down, clockwise & counterclockwise). A magnetic material can be considered to be polarized when it is placed in a strong magnetic field from an electromagnet. An electret can be considered to be polarized when it is placed in a strong electric field. If the polarization is retained when withdrawn from the fields, then we have permanent magnets and the permanent electrets.

However, the concept of vacuum polarization stems from some of the concepts of Quantum ElectroDynamics (QED). Assume you have two charges (even two electrons). It is surmised (and drawn into Feynman diagrams) that two electrons can exchange a photon. Under the concept of QED, the photon in this role is really game playing and the photon is not a real, physical particle. It is not observable, it does not satisfy the energy-momentum relationship one would expect of a **real** particle. Therefore, it is dubbed as a **virtual** particle. In the QED concept of the vacuum, rather than being **nothing at all**, the vacuum is endowed with the concept of a boiling sea of **virtual particles**. Such a virtual photon spends its time being a **virtual electron-positron pair**, or being a virtual photon.

Just as we have some concept of a magnetic field or an electric field, the field for these **virtual** particles can be produced by a positive charge **Q** which produces **virtual** particle pairs which are deemed to be **polarized**. In other words the virtual electrons will be attracted by the positive charge **Q**

and the virtual positrons will be repelled. This virtual effect is termed **polarization of the vacuum**.

Although this sounds like a figment of the imagination of a not-too-busy theorist, modern physics states that there are observable effects of the vacuum polarization. A muon can have its energy level shifted. A hydrogen atom can have its energy level shifted (the 27-megahertz portion of the Lamb shift). Vacuum polarization can also cause radiative changes in scattering (of photons).

Some nonlinear QED effects are explained as the results of **virtual pair production and annihilation**. Two photons would have a very, very small cross section (a measure of the probability that two particles will interact). The cross section is too small to have, as yet, been measured. However, the QED prediction is that photons can be scattered when emerging from the **Coulomb field** of an atomic nucleus. This scattering is called **Delbrück scattering** and has been experimentally observed as predicted.

Once you have established a model (a paradigm) of physical reality, then you are inclined to use that model to explain as many experimental observations as you can. When you throw away the **energetic vacuum** and are not allowed to use its interaction with matter as part of your model, you must come up with something else. Part of the **something else** has been quantum electrodynamics (QED). Perhaps, if we allowed the aether back into the model, we could come up with something a lot more simple than QED. One wonders what the sea of virtual positrons and electrons and its **vacuum polarization** would become. One would suspect that the resulting model would be a lot simpler. **Model ideas anyone?** Or don't you want to be involved in shifting the paradigm?

[Thanks, Dr. Lambertson, for your faith in our ability to explain things. However, even the experts in QED do not agree on what they are explaining. I hope that this attempt will provide a bit of a **feel** for vacuum polarization. We hope that the only readers that drown in the virtual sea of positron-electron pairs are the **virtual readers**).

WHAT ARE CHARACTERISTICS OF THE AETHER?

By Hal Fox

We begin with the assumption that readers of *NEN* are the best informed readers in the world. Therefore, we ask our readers to respond to the following question: If there is an aether, what are the characteristics of that aether?

Here are some ideas (supported with experiments where we can):

1. The aether is a fluid-like medium in which all matter resides.
2. The aether penetrates the spaces between material particles.
3. The earth spins in the aether but (similar to the fundamental notion of fluid mechanics) there is little relative motion between the earth's surface and the aether. (See Michelson-Morley's experiment for measuring the speed of light).
4. The aether is anisotropic (essential the same in all directions), omnipresent, and energetic.
5. "Waves," such as light waves, travel at about 3×10^{10} centimeters per second. However, light of different frequencies travels at different speeds. The speed of light is measured near massive objects. The speed of light in interstellar space may be different.
6. Light photons can interact with electrons and increase or decrease the mass of the electrons. (See Quantum Mass Theory Compatible with Quantum Field Theory, by Petar K. Anastasovski & Trevor M. Benson, c1995, Nova Science Publishers, Inc.).
7. Aether particles (if the word particle can be properly used) have a very low degree of reaction with matter. However, a small fraction of the aether can be captured by matter.
8. The aether is increased by all type of radiated electromagnetic phenomena. The aether is decreased by small but finite interactions with matter (possibly more intense interactions are found in massive bodies such as planets and suns).
9. The aether flow through ferro-magnetic materials is the fundamental cause of magnetism.
10. The aether flow or interaction with charged particles is the fundamental cause of electric fields. As a result, it may be possible to create an aether shield (such as shown by T. Townsend Brown and suggested by A. Zielinski).

[Readers: There you have a start. Please comment and add experimental evidence for proof or disproof of these aetheric concepts. Ed.]

Book Reviews

New From John Hopkins
For Immediate Release

INSIDER RECOUNTS PROMETHEAN QUEST TO HARNESS FUSION ENERGY - "THE GREATEST TECHNOLOGICAL CHALLENGE OF ALL TIME"

In 1989, the supposed discovery of "cold fusion" generated intense excitement around the world. At last, it seemed that researchers had discovered the cheap, clean, and limitless source of energy promised by science and science fiction for decades. But cold fusion proved to be an illusion, as well as a distraction from the more promising - and exciting - search for true, "hot" fusion. It is this search for real fusion energy that T. Kenneth Fowler chronicles in The Fusion Quest (Johns Hopkins University Press).

Fowler has spent thirty years in fusion energy research at the Oak Ridge National Laboratory, General Atomics, and the Lawrence Livermore National Laboratory, and now teaches at the University of California at Berkeley. He recounts the exploration for sustained fusion energy, beginning with discoveries in classical physics by Newton and Einstein, and concluding with the moment on December 9, 1993 when scientists at the Princeton University Plasma Physics Laboratory produced the first definitive demonstration of controlled fusion energy. For one second, as 3 million watts of fusion energy were generated when a plasma consisting of equal parts tritium and deuterium were superheated, scientists had captured on Earth the power of the Sun.

The Fusion Quest is a comprehensive look not only at past developments in - and the current state of - fusion research but also the future of a science that is constantly progressing toward its goal of sustainable fusion energy. Fowler discusses in

detail [hot] fusion's potential to provide both abundant and environmentally clean energy source that could sustain our industrial society in the twenty-first century and beyond. With clear and accessible language, Fowler vividly describes the complex technology that makes fusion possible, the politics behind big science, and the personalities of the fusion researchers themselves that come together in the science that might prove to be humanity's best hope for future prosperity and progress.

The Fusion Quest \$29.95
by T. Kenneth Fowler
Pub. Date: April 16, 1997, ISBN 0-8018-5456-3
264 pages and 8 pages full-color illustrations

[Unfortunately, Fowler ignores the concept of low-energy nuclear reactions, which **WILL BE** the fusion energy for our future, and it won't take until the 21st Century! - Ed.]

Magazine Reviews

SPACE ENERGY JOURNAL
vol 8, no 1, March 1997

Contents of Note:

D.A. Kelly, "What is the True Status of New Energy - Today?" p 1. [Seeing past the hoopla and flops to the fantastic.]

Alexander V. Frolov, "The Work is Created by Means of Potential Field," pp 14-22.

Introduction: The concept for physical vacuum as an energy source is proved mathematically. It is recognised that space itself has inner structure and it can be used as source of energy if some process is organized to change the structure of space. The existence of reality is described by means of a density probability function for energy. So, any space is the result of some energy process and there is no space that has no energy at all. Some power process can be designed in any point of the space by means of energy transformation.

Win. Lambertson, "Putting Casimir to Work," pp 26-29. [Utilizing the energy of the zero-point field]

COLD FUSION TIMES

Courtesy of Michael Swartz, Editor

Vol 5, No 2, Spring 1997 issue of *Cold Fusion Times* begins with the bad news of CETI filing an adverse report against the issuance of the Pons-Fleischmann patents in Europe. The cold fusion movie "The Saint" is reviewed. A summary of the "Correlation of Excess Heat And Neutron Emission In Pd-LiOD Electrolysis" by H. Ogawa et al., is also provided. Ogawa, et al., report on both excess heat (6.5 watts) and neutron emission above background at a peak around 4 megavolts.

This issue also includes a short article by F. Cellucci et al., from the University of Rome, "X-Ray, Heat Excess and He⁴ in the Electrochemical Confinement of Deuterium in Palladium." This article reports on the correlation of excess heat and nuclear signatures. Also reported in short abstract form are two articles authored by a combination of G.H. Miley, G. Narne, M.J. Williams, J.A. Patterson, J. Nix, D. Cravens & H. Hora. The two titles are "Design Considerations for Multi-Layer Thin-Film Patterson-Type Microspheres" and "Experimental Observation of Massive Transmutation in Multi-Layer Thin-Film Microspheres."

Evan Raglund writes about "Triode Cell Experiments for Controlled Fleischmann/Pons Effect." This article reports on a cold fusion triode that has been in continuous operation since 20 March 1996. Finally, both Jed Rothwell and Elliot Kennel report on the apparent closing of the New Energy Development Office (NEDO) in Japan. Apparently this group is not being funded. However, during the past year Dr. Stanley Pons signed up for another two years of funding.

Cold Fusion Times is a quarterly newsletter published by Mitchell Swartz and available from P.O. Box 81135, Wellesley Hills, MA 02181.

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ELECTROSTATICS NEWSLETTER

Courtesy of Bill Smart, Editor

This newsletter is published "about six times a year" by **Electrostatics Society of America**. This issue mentions the Institute for New Energy and *New Energy News*. Other news is the announcement of ESA's annual meeting scheduled for the University of Georgia, June 29-July 2, 1997. An article by ESA's Secretary/Treasurer, "High-Technology Divining Rod Detects Human Presence," reports on a development of a device which can sense a human presence even through a wall. (We will try to get more information on this device.)

Glenn Schmiegl writes about the relatively new, strong, neodymium magnets. (We will get more information on the source for those of you looking for strong magnets). In another note to the editor, Professor Stuart Hoenig (Univ. of Ariz.) notes that bees appear to be sensitive to magnetic fields. Bard Crowley reports that the *Discover Magazine* is featuring some of the ESA's work on electrostatically-charge pollen as a way of pollinating plants.

The ESA home page is

<http://eng.bu.edu/~mnh/esa.html>

The ESA address is 1525 E. 82nd. St., Indianapolis, IN 46240.

LETTERS

APOLOGIES TO DR. BOCKRIS

The attached letter was received by Dr. John O'M. Bockris on Monday, April 21, 1997; therefore, the matter regarding the seminar's change of venue has been resolved. Out of respect for the individual that submitted the letter, the person's identity will be protected. The following information was forwarded to 1500 faculty, staff, and students on campus and the Board of Regents.

To: Dr. John Bockris
Distinguished Professor
Chemistry Department
Texas A&M University

On behalf of faculty, staff and students that were involved with the decision to cancel the "Alternative Energy Resources & Technology" seminar, please accept this humble apology for the poor judgement that resulted in reversing the decision to not hold the seminar on campus. Based upon the material presented at the seminar at St. Mary's Catholic Student Center, you have proven that your work in cold fusion is legitimate and should be taken seriously. 173 patents in the cold fusion field is convincing evidence in and of itself.

It is truly unfortunate that you have unnecessarily [experienced] so much resistance in sharing your ground breaking research with the University community. I sincerely hope that the other people involved with making the mistake of forcing your seminar off campus will be open-minded enough to allow the Fall 1997 Alternative Energy Conference to be held on campus.

Sincerely, /s/ [name withheld]
Mechanical Engineering Dept.
Texas A&M University

LETTER FROM GREG HODOWANEC

This [letter] was issued in response to some colleagues trying to use conventional transformer theory with the Mini-MRA. **No can do!** The Mini-MRA

is **not** a conventional transformer system, i.e. input power is not **transformed** to output power, per se. The input only needs to **start** 'excitation' of the reactive elements. Interacting with the Rhysmonic frequency of the aether will then build-up this power into useful form in this system. The "Energy Extraction" article will explain the mechanism. (I hope!)

Regards
GH

I. More on the Mini-MRA

With conventional transformer theory a source impedance is 'matched' to a desired load impedance through the turns ratio of the transformer windings. Thus, while there could be an **optimum** turns ratio for the Mini-MRA transformer it will **not be** to transform maximum power from source to load! This would only result in 50% power efficiency as the power must be evenly divided between the source and load.

The Mini-MRA operates on an **entirely different principle**. The source (generator) must supply **only an 'exciting' voltage** (at minimum power levels) to resonate the inductor in its reactive mode. The input power will be determined by the generation of **live** current needed to develop the required voltage across the generator resistance, (as connected to the reactive elements). Thus conventional transformer theory will **not** be involved here. The optimum transformer turns ration will be best determined by **experiment** at this stage of the game. This is because, while there still will be **some** 'reflected' **resistive** impedances involved here, the interaction of the coil reactance with the '**aether**' will **complicate the analysis**. Some other factors will also be involved, such as the frequency of operation as well as the nature and size (geometry) of the reactive core material. Much more work is needed here!

II. Conclusions

New design approaches are required with the Mini-MRA. To try to design Mini-MRA's on the basis of conventional theory (transformer) will only negate the esoteric interactions with the aether and thus result in the conventional 50% transformer efficiencies, i.e. **no** power gains.

LETTER FROM DON KELLY

As we continually review the progress in the new energy field we are always amazed to see the relatively large number of ongoing projects which go on, year after year, without any tangible results or promising end products.

It can only be concluded that these various new energy projects are not based on sound theory and the proper analysis of all the prior art, or these projects lack a suitable and cost-effective **reduction to practice**.

At a time when new energy is needed more than ever before, what we see is a stagnation in overall R&D, with a few notable exceptions coming from the small independent laboratories.

The various **cold fusion** projects are one area which now appears to be attractive, especially with the near-demise of the **hot fusion** efforts. Now that the funding for the **hot fusion project** at Princeton University Labs has been nearly cut in half, we are witnessing the **folding of the H/F tents** in the U.S., which is about time!

It is most unfortunate to note that there is some in-fighting now going on in **cold fusion**, between the various competitors, and it can only be hoped that this will all clear up very shortly!

We have witnessed a number of past N/E projects which have been based on flawed or unworkable theory, such as the "man from Mississippi," the "man from New Jersey," the "two guys from Texas," and the conman from California," and some others who get lost in the backwash of N/E history!

The irony in this present situation in the new energy field is that there are a considerable number of past projects which have somehow been overlooked or "trashed" by researchers over the years. It is difficult to understand why certain past projects have not been restudied and re-started due to their major degree of credibility. The outstanding prior art of Viktor Schauburger, T. Henry Moray, Hans Coler, Peter Mendershot, and the Swiss M-L Converter group are now certainly top candidates for a thorough review, analysis and reconsideration, at this time.

Why is it that we tend to dwell on questionable physical theory and **new** projects, when so much of the meritorious groundwork has already ready been put in place in the N/E field ?

Re-visited N/E projects that are generally based on any one of these past N/E projects would have a very good chance for success as a future energy source to meet our growing demand for abundant energy.

We also need to be weaned away from the idea that we can expect funding support from the various Federal agencies, since we now know that there has been a covert **no-no** to such funding in the post 1980's period! The only funding options open to us are through private U.S. investors, and some overseas groups who seem to be catching on to the positive realities of this new energy field, at this time!

We must all now understand that just **writing to our Congressmen** about the need for N/E is never going to make it happen for us, since these "foggy-bottom" public servants are besieged with more pressing social needs, from far larger constituencies!

There is now a growing need for the redress of grievances against the scientific establishment, in certain specific areas of advanced technologies, as now **handled** by NASA, the DOE, and some other Federal agencies.

One specific area of gross incompetence, and therefore the dereliction of mandate, is NASA's failure to grasp the significance of the following:

1) Gyroscopic/magnetic anti-gravity principles, which can lead to space vehicles which do not use reactive/rocket principles and flight vehicles. (How long must we endure the past firecracker/ rocketry mode of flight and space propulsion?)

2) In the area of **new energy**, the DOE's failure to grasp the true significance of the growing number of valid **cold fusion** projects, can now support the charge of **culpable dereliction of the DOE's basic mandate!**

The only way that we can expect to bring about the needed changes in the true realities into today's applied physics, is to hammer, hammer, and keep hammering on the Chairmen and members of the Senate and House Committees and subcommittees which have **oversight** on the Federal agencies who now stand in **culpable dereliction of their mandates**.

At some point in time, these various Congressional committees and sub-committees will have to conclude that it will be easier to make the required changes in

the offending agencies, than to continue to endure what they will be receiving from us **outsiders!**

LETTER FROM DANA ROTEGARD

Primarily through the good offices of former Bloomington Mayor Kurt Laughinghouse, the Minnesota Cold Fusion Associates has briefed officials in the Minnesota state government and U.S. Senator Paul David Wellstone. Dr. Wellstone and Kurt Laughinghouse were co-founders of the Nuclear Freeze in Minnesota in 1982. Tim Laughinghouse, was the principal speaker for cold fusion on the floor of the 1994 DFL convention. Past experience with nuclear politics has made cold fusion credible to these public persons.

Minnesota, which imports all its energy supplies and has a thriving venture capital and technology community is a natural location for cold fusion research. Retired Control Data founder William Norris complained to Minnesota Public Radio in 1993 that new companies were not getting enough support from the civic establishment and that energy research at the University should get more attention in the media and from the Minnesota legislature. By putting cold fusion explicitly on the agenda on one of America's most seminal political organization, I believe that MCFA members have taken an important step toward giving cold fusion research the level of credibility it should command in the 1990's.

Green Pricing: Consumer Demand for Clean Energy in Electric Cooperatives

To Hal Fox,

As I mentioned in my last conversation to you, I have been field organizing for the State of Minnesota's largest (75,000 members) environmental group Clean Water Action Alliance (CWA), since last October on their drive to block the deregulation and oligopolization of the region's electric utilities. CWA has a very active lobby for alternative energy, particularly wind power. CWA invited Dr. Oriani to give a briefing on the University of Minnesota's cold fusion research in Dec. 1996. (This 50 minute lecture is now on VHS tape.)

Environmental policy groups such as CWA have been unaware of the advances in Cold Fusion and ZPE science that relate to their policy goals **because** of the dysfunctions in American Science reporting. These debates are carried out outside or above the normal

ranges of the science media and not "on the table" as far as their directors are concerned. Dr. Tingsley is probably right in that this problem is not addressable until engineering development in the private sector changes the political landscape.

Since January CWA has been working with Dakota Electric, a rural electric cooperative with about 65,000 members in the south suburbs of the Twin Cities on the Midwest's first **green pricing** initiative. Simply put, the cooperative is looking for about 1000 households to **subscribe** to wind electricity when it constructs a new array of wind turbines in one of the breezier areas of the Minnesota tundra. In a useful accounting and engineering fiction, consumers who want **green electricity** can pay a penny or so a kilowatt hour more to help develop this form of clean energy. In a little more than a month of winter field organizing about 1000+ households have signed expressions of interest. CWA has been recruiting in the suburbs of Burnsville and Eagan (where I field-managed a Sierra Club drive in Feb. 1996). Homeowners with separate farm windmills told me they were already selling power back into the grid (using a separate meter for power out).

The tangible grass roots interest in clean energy even when priced slightly higher than fossil fuel or fission is no illusion. Mark Hugo pointed out in *FUTURICS* in 1992, that a cold fusion or ZPE powered parked car could be the same sort of co-generation source as windmills, solar, or biomass. An active co-generation source that is actually cleaner and cheaper than conventional energy would have incredible market acceptance ...

This success has already starting talk in the Minnesota legislature. I expect other utilities to imitate.

/s/ Dana Rotegard

RE: LETTER FROM PETER MOBBERLEY
(*NEN* March 1997, vol 4, no 11, p 20)

LETTER FROM BERT SCHREIBER:

1. Mr. Mobberley is in error. His ... assumptions ... do not follow the unbroken axiom of the universe. Sum = Parts or Mass = Energy [Conservation of mass-energy]. Simply saying, "that it is not possible that heating etc." does not make it so. Proof [heat generated] by physical measurement at the values so chosen would be extremely difficult

2. Simply, change the degree to wit: Take a suspended 500 pound sphere of lead whose KE is zero. Hit it with a small projectile (.22 slug) which has some KE, value immaterial. The end result is the total KE **remaining** is still zero. Where did the .22's KE go? Into vaporization along with the release of electromagnetic radiation and some KE in the ejecta etc. which is also then radiating 'heat' until all is in balance once again. The KE in -out has not been violated.

3. I have valiantly tried, and failed, to bring to everyone's attention the simple fact which is: ALL ENERGY from its beginning to its end is electromagnetic radiation. Hence, it all must be accounted for. It is all within fixed natural limits.

4. The lowest natural frequency is 1 cycle/sec up to the final highest frequency (and it can be no greater or higher) of about 6.6×10^{22} cyc/sec. [Eta pion decay].

5. His other comments are likewise incorrect. L/t is not velocity but **speed** and has a maximum value and is not a constant etc.. Furthermore, the t in same does not really exist but is a human concept. That is, Length cannot be 'divided' by time as they are two separate dimensions. It is length PER time which is something else again. It reads the same as one would say one has six apples in/per a basket, or 6 apples per basket. One cannot divide apples by baskets.

6. He is also only half correct about gas inside a closed container. It only has an **average** temperature and the **radiation being emitted** must likewise be reflected from the containers inner surface 100%.

Sorry, but all in all, his letter ... should not have been printed in the first place, especially as this rebuttal will probably, too, not see the light of day in *NEN*.

Respectfully,
Bert Schreiber

[It is not *NEN*'s policy to print letters that appear to attack. Therefore, some of the phrases in Bert Schreiber's letter have been deleted. - Ed.]

PETER MOBBERLEY'S COMMENTS ON BERT SCHREIBER'S LETTER:

Here are some quick, off the cuff comments about Bert Schreiber's letter.

Para 1: My arguments do follow the Conservation of Mass energy. In paragraph 10 of my letter I seek to explain the non-conservation of KE as conversion to matter (tiny etc.) thereby conserving mass energy.

Para 2: Notice Bert Schreiber also chooses an inelastic collision in his illustration (lead is very soft). Had he chosen steel, the collision would have been elastic and KE conserved.

Para 3: No - **potential** energy, for example, is not electro-magnetic radiation (consider the chemical potential energy contained in a tank of gasoline which is available for conversion into, for instance, electro-magnetic radiation only if and when required).

Para 4: There are no limits on natural frequencies, tidal frequency for instance is 1 cycle per tide or roughly 0.08 cyc/hr or roughly 2.3×10^{-5} cyc/sec.

Para 5: Of course one can divide apples by baskets. Division of consignment of 6000 apples in 1000 baskets would give us a result of say 6 per basket or mass $16^{2/3}$ baskets per 100 apples.

Para 6: ?

Peter Mobberley

LETTER FROM STEVE SMITH

April 8, 1997

When I first heard the comments of newscasters and so-called "scientists" castigating Pons and Fleischmann for announcing their discovery to the public without going through the "peer" review process, I instinctively knew that something was wrong. An innovator has no peers in the arena of his innovation. I had seen at the university level where all the professors with seniority immediately united to forcibly attack new discoveries of those outside their clique, even though the validity of the discoveries was obvious even to the less educated. They had a vested interest in stomping out the promulgation of any discovery that would threaten their standing and position of authority as tops in their fields etc. and recognize the value of another. When I found the following quote from Ayn Rand in her book, The New Left: The Anti-Industrial Revolution, I thought of *NEN*, since it has been so involved in the arena of reporting innovation and discovery.

"If there is any one way to confess one's own mediocrity, it is the willingness to place one's work in the absolute power of a group of one's professional colleagues. Of any forms of tyranny, this is the worst; it is directed against a single human attribute: the mind - and against a single enemy: the innovator, by definition, is the man who challenges the established

practices of his profession. To grant a professional monopoly to any group is to sacrifice human ability and abolish progress; to advocate such a monopoly is to confess that one has nothing to sacrifice," p 47.

Your friend, Steve Smith

Meetings

INTERNATIONAL SYMPOSIUM ON NEW ENERGY

Memorial Day Weekend
May 23-26, 1997

Marriott Denver Tech Center
Call for information on presenting papers.

Registration fees: \$180 until May 22, \$200 at the door. \$75/day, \$45/half-day.

216 Commerce Drive #4, Fort Collins, CO 80524
Phone 970-482-3731, Fax 970-482-3120
Website: www.acad4newenergy.com
Cust. Service: csrep@acad4newenergy.com

Marriott Denver Tech Center: Reservations
800-228-9290 or 303-779-1100

Intersociety Energy Conversion Engineering
Conference
IECEC - 1997
July 27 to August 1, 1997
Hilton Hawaiian Village, Honolulu, HI

Abstracts in the area of "Innovative Concepts - Cold Fusion" and other Advanced Energy Conversion Technology areas were accepted until January 17, 1997. Draft papers due March 1997, and Final papers are due in May 1997.

More info. available at: [<busassist@aol.com>](mailto:busassist@aol.com)

ICCF-7
International Cold Fusion Forum
Vancouver, B.C., Canada
April 19-24, 1998

With the maturation of the field, ICCF-7 seeks to attract a more diverse audience including additional scientists, research institutes, students, national

funding agencies, commercial interests, journalists, and spouses. It is the objective of ICCF-7 to provide a productive international forum for communication and education.

Calendar:

June 1997: Local Organizing Committee call for 1-2 paragraph abstracts for sampling of potential presentations. Selection rules and evaluation criteria will be provided at this time.

September 1997: Official call for full, one-page abstracts. Final peer review process begins.

December 1997: Final notification to all presenters regarding the format of their presentation.

January 1998: Deadline for final abstracts to be published in ICCF-7 Program Manual and Website.

April 1998: Conference. All presenters must hand in their final papers during the conference for timely inclusion in the publication ICCF-7 Proceedings.

A different topic is planned for each day at ICCF-7. An invited presentation with summary review or global implications for the entire field will begin each day's topic, followed by five oral presentations on the topic. Afternoons will be entirely devoted to enhanced poster sessions, which include a 3-5 minute oral preview and summary. A "Top Ten" poster presenters will be selected by the attendees, and each will conduct an expanded 15 minute presentation to the full audience on Thursday afternoon. Three evening workshops will also be held.

Topics include: Heat & Related Products, Nuclear Processes & Products, Materials & Innovative Approaches, and Theory & Nuclear Physics.

For more information or to get on mailing list, contact:

ICCF-7 c/o ENECO
391-B Chipeta Way, Salt Lake City, UT 84108 USA
Phone (801) 583-2000 Fax (801) 583-6245
jaeger@ENECO-USA.com

CONFERENCE ON THE FUNDAMENTAL STRUCTURE AND MECHANISMS OF THE UNIVERSE

May 30 - June 1, 1997
at the Gold Rush Country, about 2 hrs. from San Francisco in the foothills of the Sierras.

"The conference will be a search for a common structure that will clearly explain the behavior of electromagnetism and matter, forces, space, time, entropy, at a fundamental level, and remove the wave particle duality, and should allow physics to move

forward again." Organized by the Alexandria Foundation.

For further details, refer to web site:
www.kcbbs.gen.nz/users/rtomes/conf-l.htm

An AETHER Conference

is being planned for July or August 1997 at Stanford, CA. Its purpose is to bring together contacts, researchers and theorists on the subject of the Aether. For further info contact: Plasmatronics, Int., P.O. Box E, Menlo Park, CA 94026, Tel. 415-569-3299.

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

CAI, Inc., CAI has acquired rights to develop and produce a new-type of thermal power based on the controlled production of clean nuclear reactions from micro-miniature tokamaks (provided by nature). Contact through FIC, Voice 801-583-6232, Fax 801-583-2963.

Clustron Sciences Corp.: Contact: Ron Brightsen, 703-476-8731.

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

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

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.: Weston, MA. Contact Dr. Mitchell Swartz, Voice 617-237-3625. Fax 617-237-3625.

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 *Fusion Facts*, *New Energy News*, and *the Journal of New Energy*. Voice 801-583-6232, Fax 801-583-2963. Contact Hal Fox.

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 Golde, voice 707-829-9391, Fax 707-829-1002.

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

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 Corporation: 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

Academy for New Energy (ANE) 216 Commerce Drive, Ste. 4, Fort Collins, CO 80524. Tel. 970-482-3731

ANE Newsletter, quarterly publication of ANE, edited by Robert Emmerich.

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

Cold Fusion, monthly newsletter, edited by Wayne Green, 70 Route 202N, Petersborough, NH 03458.

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, a 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 Phone 541-388-1908, Fax 541-388-2750, E-mail <etimes@teleport.com> www.teleport.com/~etimes/

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

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

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

Institute for New Energy (INE), organization to promote and help find funding for new energy research. Salt Lake City, Utah.

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

E-mail: ine@padrak.com

Voice 801-583-6232, Fax 801-583-2963.

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

KeelyNet BBS - Jerry Decker, 214-324-3501

Internet: www.keelynet.com

E-mail: jdecker@keelynet.com

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.

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

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*, P.O. Box 58639, Salt Lake City, UT, 84158.

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