

# New Energy News

VOLUME 7, NUMBER 4

ISSN 1075-0045

SEPTEMBER 2000

Editor: Patrick Bailey

Web Page: [www.padrak.com/ine/](http://www.padrak.com/ine/)

E-mail: [nen@padrak.com](mailto:nen@padrak.com) or [halffox@utah-inter.net](mailto:halffox@utah-inter.net)

\*\*\*\*\*

## EDITOR'S NOTE:

Hereafter, New Energy News (NEN) will be sent by email in two forms: Regular ASCII (text, the most basic form for computer handling of alphabetic characters) and also as a \*.pdf file. If you have Adobe Acrobat on your computer you can easily read any file with a \*.pdf file extension. If you do not have Adobe Acrobat, you can download it from the internet for free. Alternatively, mail \$2 (for S&H) to NEN, 3084 E. 3300 South, Salt Lake City, UT 84109, together with YOUR MAILING ADDRESS and we will send you an Adobe Acrobat CD-ROM in the mail.

inquiries about The Institute for New Energy activities should be sent to Patrick Bailey, President Email: [ine@padrak.com](mailto:ine@padrak.com)

\*\*\*\*\*

## ITEMS FOR NEN

If you find new-energy items that you believe others would like to read, send them by email to Patrick Bailey, editor, [nen@padrak.com](mailto:nen@padrak.com)

If you do not have access to email, please mail articles to Nen (see address above). We will give credit to the first person that sends in any particular item. Your help will make NEN a better source of new-energy information.

\*\*\*\*\*

## EEOC RULES IN FAVOR OF LAVIOLETTE

Courtesy Richard Shamp, Washington, D.C.

Curt Suflee, "EEOC Backs 'Cold Fusion' Devotee," Washington Post, Wed. Aug 23, 2000, page A23.

The article states that Paul A. LaViolette was fired from the U.S. Patent and Trademark Office(PTO), appealed to the Commerce Department which upheld the action of the PTO, and appealed to the Equal Employment Opportunity Commission (EEOC) as a job- discrimination case. The EEOC did not rule as to whether the technology of cold fusion was scientifically correct or not but did rule that the Commerce Department acted improperly. The firing of Thomas Valone was apparently due to complaints by Robert Park, a self-proclaimed spokesman for the American Physical Society. In his many (usually monthly or more often)

email letters to many government officials, especially to the Department of Energy, Park attacks many of the proposed or experimentally proven new sciences in words chosen for emotional impact, i.e., not using the precise non- emotional words a scientist would use.

Park's apparent attacks are against any new technology that would threaten the funding for classical, academic scientific efforts, such as for the hot fusion funding. Recently, Park has added a phrase: "Opinions are the author's and not necessarily shared by the APS, but they should be."

Park has been successful in the following:

1. The adoption by the DOE of refusal to fund any "cold fusion" project.
2. The cancellation of a contract awarded to Professor George Miley.
3. The withdrawal of a patent awarded to Dr. Randell Mills.
4. The firing of Paul LaViolette from his patent examiner job.
5. The policy of the Office of Patent and Trademarks to not allow an cold fusion patents to be issued. (In Japan over 200 have issued.)
6. The resignation of several eminent members of the APS, including one Nobel laureate.
7. The denial of constitutional rights to hundreds of serious inventors to be allowed to protect their intellectual property.
8. Possibly, saving the government from investing in a non-viable technology, but we do not know of any such case.

\*\*\*\*\*

## **DEDUCTION**

Courtesy of Dr. Robert Bass

Once upon a time there was a shepherd looking after his sheep on the edge of a deserted road. Suddenly a brand new Jeep Cherokee screeches to a halt next to him. The driver, a young man dressed in a Brioni suit, Cerrutti shoes, Ray-Ban glasses, and a YSL tie gets out and asks the shepherd:

- If I guess how many sheep you have, will you give me one of them?

The shepherd looks at the young man, then looks at the flock of grazing sheep, and says:

- All right.

The young man parks the car, connects the notebook and the mobile, enters a NASA site, scans the ground using his GPS, opens a data base and 60 Excel tables filled with algorithms, then prints a 150-page report on his high-tech mini-printer. He then turns to the shepherd and says:

- You have exactly 1586 sheep here.

The shepherd answers: - That's correct, you can have your sheep.

The young man takes the sheep and puts it in the back of his jeep. The shepherd looks at him and asks: - If I guess your profession, will you return my sheep to me?

The young man answers: - Yes, why not.

The shepherd says: - You are a Management Consultant!

- How did you know? asks the young man.

- Very simple, answers the shepherd: - First, you come here without being called. Second, you charge me a sheep to tell me something I already knew. Third, you do not understand anything about what I do, because you took my dog!

\*\*\*\*\*

## 384 REACTOR ACCIDENTS IN RUSSIA

[From: "DontBlowIt.org" <[webmaster@dontblowit.policy.net](mailto:webmaster@dontblowit.policy.net)>]

<http://www.time.com/time/europe/magazine/2000/0918/russianukes.html>

A confidential report prepared by a group of experts earlier this year for the Russian government said that during the past 50 years there have been 384 reactor accidents with release of radiation, causing 58 deaths and 214 cases of acute radiation poisoning - and that does not count the Aug. 12 sinking of the nuclear submarine Kursk.

[TIME EUROPE September 18, 2000, Vol. 156 No. 12]

\*\*\*\*\*

### THE INE DATABASE - DATA REQUESTED

By Dr. Patrick G. Bailey, President, INE

The vision of the INE is to provide the one organization to look at and examine all devices and experiments that anyone wants to contribute to us in the field of energy conversion. Over the years, we have established the INE Database to identify these devices (and experiments) and to document all of the data we have gathered. WE NEED YOU HELP!

We have over 130 devices now listed in our database, and several more that I know of that need to be added. We also need a lot of additional data on the devices that we do have listed. You Can Help! ADOPT Your Favorite Device and Contribute Data!!!

All of the devices that exist in the INE Database can be seen on the INE Website via <http://www.padrak.com/ine/DBGUIDE.html>. Each device has its own webpage with all of the data that we have on that device listed on its webpage. The data for each device follows a specific set format that is the same format for each device; and this data format can be seen at <http://www.padrak.com/ine/DBTEMPLATE.html>. JUST COPY THIS, AND FILL OUT THE DATA AND EMAIL IT IN TO ADD OR MODIFY THE DATA ON ANY DEVICE! It's that easy!!!

We recognize that the data that we have thus far is far from complete, and we need your help to make this database as accurate as possible. Additional data fields may also be added soon to allow for more categories of data, like what results the inventor claims and what researchers have actually found. When new data fields are added, they will appear in the Template Webpage, and also in each webpage for all the devices. The device webpages are automatically generated by a complex computer program, so new data fields can be easily added as the needs arise.

The devices are also listed in four ranking webpages, sorted by the device's name, the inventor's name, a scientific interest sort, and a ready-for-commercialization sort. The latter two sorts are made based upon the data we have available, so new data is needed if you want to see more accurate sorts of these devices.

Your help is urgently needed and requested. Please help us!

\*\*\*\*\*

## THE HYDROGEN POWERED FUEL CELL CAR - STATUS

By Patrick Bailey, President of INE

Hydrogen powered fuel cells - for cars - in a big stock company - NOW? No one told me! I had to see it on the morning news on TV: The company is called "Energy Conversion Devices", and its stock symbol is "ENER". You can check it out at

[http://www2.marketwatch.com/quotes/quotes.asp?source=htx%2Fhttp2\\_mw&ticker=ener&table=s=table](http://www2.marketwatch.com/quotes/quotes.asp?source=htx%2Fhttp2_mw&ticker=ener&table=s=table)

<http://cbs.marketwatch.com/news/newsroom.htx> .

The company is evidently over 5 years old, and the stock was at around \$5 a share in late 1998, until a huge surge in buying the stock in the first few months of 2000 brought the stock price quickly up to \$30 a share, and now it is in the \$35 per share range (but watch out - the stock price looks cyclic - over 4 years!).

Here is part of a news article I found on the above URL entitled

[http://www2.marketwatch.com/quotes/articles.asp?symb=ENER&sid=1784&source=htx/http2\\_mw&guid={D19B95F5-14A8-4A6D-A06E-2DDCFC44E618}](http://www2.marketwatch.com/quotes/articles.asp?symb=ENER&sid=1784&source=htx/http2_mw&guid={D19B95F5-14A8-4A6D-A06E-2DDCFC44E618})

"Energy Conversion Devices Reports on Hydrogen Stored in a Solid For Fuel Cells: The Auto Industry's Game Changer" - PRNewswire:

WEDNESDAY, SEPTEMBER 13, 2000 10:58:00 AM EST

TROY, Mich., Sep 13, 2000 /PRNewswire via COMTEX/ -- Robert C. Stempel, chairman of Energy Conversion Devices, Inc. (ECD) ENER, has witnessed his share of advanced automotive technology. During 34 years with General Motors, including two years as chairman and CEO of the world's largest corporation, Stempel personally fostered major advancements in pollution control, front-wheel drive, electronic engine controls, occupant-safety systems, and electric propulsion. So when Stempel heralds ECD's latest advancements in energy storage as a "game changer," it's clear that he's touting something more profound than the latest spill-proof cupholder.

Propulsion experts agree that cars in the near future will be electrically-driven and fuel cell powered to satisfy the need for environmentally-responsible transportation. A consensus is also forming – in both automobile industry and energy supply sectors -- that hydrogen will be the ultimate fuel of the 21st century. Enter ECD's game-changer. "It's our intention to lead the way to a hydrogen economy," said Stempel, "ECD's metal-hydride storage systems offer a cost effective, safe and efficient means of transporting the energy necessary for vehicles of the future."

ECD's latest strides in metal-hydride technology build on pioneering work begun in the 1960's by the company's co-founders, Stanford R. and Dr. Iris M. Ovshinsky. During four decades of research, ECD has earned 350 U.S. and 800 foreign patents covering disordered and amorphous materials, their product applications and manufacturing processes. Most recently (August 2000), the American Chemical Society named Stan and Iris Ovshinsky as "Heroes of Chemistry

2000" for creating clean and renewable energy technology, including rechargeable batteries and hydrogen-fuel technology. The Ovonic Battery Company was formed as an ECD subsidiary in 1982 to apply this expertise in the nickel-metal hydride (NiMH) rechargeable batteries invented by the Ovshinskys. Last year, 13 ECD licensees sold nine hundred million consumer NiMH batteries for notebook computers, cell phones, and other portable electronic devices. NiMH batteries are also the preferred power source for current electric and hybrid vehicles.

\*\*\*\*\*

## **NEW POLYMER COATING IMMOBILIZES CHERNOBYL RADIOACTIVE WASTE**

Environment News Service

September 18, 2000

Contributed by Patrick Bailey, Presidnet INE

<http://ens.lycos.com/ens/sep2000/2000L-09-18-02.html>

WASHINGTON, DC, September 18, 2000 (ENS) - A newly developed white silicon polymer coating known as EKOR can completely encapsulate nuclear waste and prevent radioactive contaminants from dusting or seeping into the environment. The substance which is now being demonstrated at the damaged Chernobyl nuclear reactor could solve problems of nuclear waste management anywhere in the world, its developers say.

In March, the EKOR coating was applied in a successful demonstration that contained radiation from the destroyed nuclear reactor at Chernobyl near Kiev, Ukraine. Robots applied the polymer to cover the largest fuel containing mass under the failed Reactor 4 at Chernobyl, the most radioactive spot on the planet.

Another, more extensive application, is planned for October to develop and fine tune the methods and equipment for applying EKOR coatings to nuclear waste.

When Reactor 4 was destroyed by an explosion and fire in April 1986, molten nuclear fuel collected beneath the ruined reactor where it has been emitting deadly radiation ever since. Many substances have been applied in attempts to contain radiation from the fuel masses and surrounding radioactive dust at Chernobyl, but all have disintegrated within three or four months from the effects of the radiation.

The ruined reactor and the nuclear fuel masses on the ground floor below are not really protected by the concrete structure that now partially covers the mess. Rainwater enters the building and carries the radioactivity into the soil and groundwater. Birds fly through and become contaminated.

International donors have collected millions of dollars to build a new concrete structure over the reactor, but construction has not yet begun.

EKOR was certified for use by the Ukrainian government in August after an initial application of the composite at Reactor 4 proved that EKOR is radiation resistant, does not degrade even after long term exposure to radiation, and can withstand extreme physical, chemical and biological assaults on its structural integrity.

The substance was developed by Russian scientists at the Kurchatov Institute in Moscow. Some of these scientists went to Chernobyl shortly after the explosion and realized that a way of

containing the deadly radiation must be found. The Institute covered the costs of research and development of the polymer.

Kurchatov Institute scientists also developed advanced robots to apply the EKOR coating in the dangerous working conditions under the failed Reactor 4 where humans would suffer the lethal effects of the radiation.

Once created in the laboratory, the rights to produce and market EKOR were acquired by Eurotech, a publicly traded international technology holding and marketing company based in Washington, DC. Eurotech provided the funds to take the polymer from the laboratory stage to testing and demonstration in the field.

Eurotech president Don Hahnfeldt estimates the total development cost of EKOR to date is approximately \$3 million.

Eurotech is currently working with NuSil Technology in Santa Barbara, California to test and prepare EKOR for commercial production in North America where hundreds of nuclear waste sites are emitting radiation.

EKOR is non-toxic, highly fire and heat resistant and can be applied wherever the radioactive material is located, on all surfaces, wet, dry, clean or dirty, according to Peter Gulko, a major shareholder and former director and president of Eurotech. Originally from Kiev himself, Gulko provides liaison between Eurotech and its affiliates in Russia and Ukraine.

To prevent radioactive waste and contaminants from spreading, the ideal encapsulating material must not degrade or decay over centuries of prolonged exposure to radiation and environmental corrosion.

Once applied, the material must form an impervious barrier to water and prevent contaminated materials from leaching into the environment. The substance must be nonflammable and non-toxic, causing no harmful effects to the environment. After exposure to radiation, the material must be disposable as environmentally safe non-radioactive waste if necessary. Gulko says EKOR meets all these criteria.

Recent fires near the Hanford Nuclear Reservation in Washington State, the Los Alamos National Laboratory in New Mexico and at the Idaho National Engineering and Environmental Laboratory illustrate the potential for future nuclear accidents.

At power plants across the United States and in other countries, thousands of tons of spent nuclear fuel are waiting for safe disposal. Radioactive wastes left from Cold War plutonium production for nuclear weapons at Department of Energy facilities across the United States, at the Mayak nuclear complex in Russia, and elsewhere around the world. All of these materials are emitting radiation.

Only one facility in the world, the Waste Isolation Pilot Plant (WIPP) in the state of New Mexico, USA, is an operating geological repository designed for permanent disposal of long lived radioactive wastes. It accepts transuranic, but not high-level nuclear wastes for storage in salt caverns half a mile below the surface of the Earth.

Scientific evaluation of Yucca Mountain, Nevada for the permanent disposal of high-level nuclear waste has found that even in this arid environment, water might come in contact with

the containers in which the waste would be held, eventually eroding the containers and allowing radioactivity to escape.

The greatest problem in nuclear waste management is that many of the facilities designed to store and dispose of these wastes have failed to prevent the leakage into the environment, leaving the groundwater, surface water, soil and air at risk of contamination.

If the EKOR coating continues to perform as it has in the first demonstrations, some of the most dangerous nuclear waste in the world might be more manageable.

\*\*\*\*\*

### **THE INE WEBSITE EXPANDS WITH PICTURES!**

By Patrick Bailey, President INE (ine@padrak.com)

As a result of the recent INE Conference, an arrangement has been reached whereby the INE can now post longer articles and many B&W pictures on the INE website!

An INE member has volunteered to use some his vast website file space to host large articles and B&W pictures for the INE! (B&W \*.gif and \*.jpg picture files.)

The INE website will soon be utilizing this badly needed additional space, and this will all be transparent to the user! Just click and go!

Authors take note that we can now post those long papers and complex pictures you have on the INE website. I prefer all articles to be in text-only format. However, with this new website space, we can do large PDF files with those complex equations from any source. Just email your files to me. Goeth for it!

\*\*\*\*\*

### **METHANE ICE: THE KEY TO GLOBAL WARMING?**

Contributed by Patrick Bailey, President INE

From an email referenced below.

Date: Tue, 19 Sep 2000  
From: Dave Hayes <act@efn.org>  
Subject: Energy shortage?

We all know how gasoline prices have shot up. Supposedly because there is a shortage of crude oil. But.....When was the last time you heard talk of an energy shortage? Probably does not ring a bell, because there has not been talk about an energy shortage in quite a while. Why not?

The reason is a substance called Methane Ice. It turns out that there is more energy trapped in methane ice than all the known oil, coal and natural gas put together. How much more? Perhaps even twice as much energy. What is methane? Natural gas is primarily methane, and there are plenty of busses and cars running on that at the moment.

Where do you find Methane Ice? Apparently on almost all coastal shelves at depths greater than 600 feet. What is it? It is water that has methane gas trapped in it. Despite the fact that methane is a greenhouse gas, little is ever said about any possible 'global warming' effects of natural releases from undersea deposits. But, when methane is released into the atmosphere, it quickly decomposes into carbon dioxide! Now while the sky is falling environmentalists are hollering about carbon dioxide, they say little about methane coming from the ocean. But, atmospheric methane is rising faster than carbon dioxide. What are natural sources of methane? Swamps and gas expelled from bovine animals. Seen any wetlands increasing lately?

These facts are not secret, just not much presented to you by the Ministry of Truth (your TV station). Take a look for yourself at some of the evidence:

"Ice that burns":

<http://www.sciam.com/1296issue/1296scicit7.html>

"End of the last Ice Age from Methane Ice?"

<http://www.newscientist.com/ns/980328/nlandslide.html>

"Methane Ice trapped in the Arctic"

<http://www.newscientist.com/ns/980328/nlandslide.html>

What do the U.S. Department of Energy and other agencies say? Log on to these websites to see:

[http://www.fe.doe.gov/oil\\_gas/methanehydrates/oilgas\\_hydrate.html](http://www.fe.doe.gov/oil_gas/methanehydrates/oilgas_hydrate.html)

<http://www.llnl.gov/str/Durham.html>

<http://marine.usgs.gov/fact-sheets/gas-hydrates/title.html>

<http://walrus.wr.usgs.gov/resources/hydrate.html>

Finally but not last, a site that debunks global warming:

<http://www.vision.net.au/~daly/>

\*\*\*\*\*

## **THE AHMADOV OVER-UNITY DEVICE (USING IONIZED CESIUM)**

Email by Jerry Decker

Through Patrick Bailey, President INE

Hi Folks!

Something you might be interested in checking out, a Russian claim of overunity using ionized cesium.

<http://www.escribe.com/science/keelynet/m9131.html>

Received the following email from a Russian inventor which needs to be posted to the list. He claims a working free energy device which as I see it is much like Chernetskii

<http://www.keelynet.com/energy/chernet1.txt>

<http://www.keelynet.com/energy/plasmafe.txt>

<http://www.keelynet.com/energy/frolov1.htm>

Interesting that the 300 times light speed experiment was accomplished in ionized cesium....

Subject: New power amplifier

Date: Wed, 20 Sep 2000 13:59:10 +0400

From: Akhmedov, Balashirin A. - AkhmedovBA@AZNET.ORG

To: jdecker@keelynet.com

Dear Sir,

Permit me to introduce myself to you. My name is Balash Ahmadov and I am from Baku, Azerbaijan. I have been engaged in alternative energy technologies more than 9 years. After many years of research work, I have created a new method of power generation. To learn more about my research, log onto the Internet address:

<http://members.density.com/Balash/>

Please note that I created the new power amplifier. You can ask; How? I discovered the new process in physics. In that process happens current increasation in the circuit. By increasing the current, the power increases. I demonstrated my experimental results to other physicists in Azerbaijan and they appreciated and confirmed my results. I named that process "Effect Ahmadov".

My process was not known in physics. This is a new process. The other physicists in Azerbaijan advised me to file for a patent of my invention in Azerbaijan. The process was shown on SpaceTV (Azerbaijan) on 6 August. In that show I presented my research results. In my demonstrations, I am using the 'black box' principle. As I remarked above, in my process current increase occurs in the circuits. So, if the current begins to increase by 5 times, then the magnetic field in the motor coils also increases by 25 times. These are not theoretical conclusions, this is experimental fact.

I decided to help my friends to use my power amplifier to create a new electrocar, so that after applying my device, we won't need to recharge the accumulator. Recharging of accumulator batteries will happen automatically when electrocar moves. I am sure that this electrocar would create a sensation in the car markets.

Looking forward to hearing from you.

Balash

P.S. I heard that in your site you announced that my device is not workable. Please note that you are deeply wrong. I wanted to file for a patent of my invention. That is why I could not post on the Internet the full description of my invention. Therefore no one in the world is able to reproduce my results.

If anybody wants to see my power amplifier in action then I invite that person to Azerbaijan. I have already solved the energy problems of mankind. The problem in that they don't know this. I am looking into the future and I believe that time will solve this problem. But in the future, they will discover that they already made a mistake and spent billions of dollars in vain.

--

KeelyNet - Order out of Chaos - <http://www.keelynet.com>  
discussion archives <http://www.escribe.com/science/keelynet/>  
KeelyNet - PO BOX 570309 - Dallas, TX 75357-0309  
Jerry W. Decker - Voice - 214.324.8741 - FAX - 214.324.3501

\*\*\*\*\*

## INDIA TRIP REPORT

Email from Toby Grotz

Tewari's machine is as usual measuring overunity. 9 KW electrical energy in and 9 KW electrical energy out plus 3 - 4 KW heat out. (I squared R loss across the brushes). Tewari has found a method of reducing the effect of Lenz's law. His next model will be a substantial improvement over the current unit. The current unit was funded for 3 years by the GE of India, Crompton Greaves Ltd. CGL admitted in an email to me from the Manager of their Industrial Systems group, who is an electrical engineer with a background in motor and generator efficiency measurements, that the SPG was over unity. CGL is not pursuing the invention because they do not see a market for a low voltage high current machine.

I was a guest of the Nuclear Power Corporation of India in their guest house across the Kali river and upstream from Tewari's house and lab. My trip and time was sponsored by an engineering design company based in Chile which is evaluating the SPG for use in an industrial process.

Tewari is organizing a Conference for October 2001. Lodging and meals will be free as long as the space holds out at the Guest house (A three story hotel set in the lush jungle on the Kali river.) Transportation by bus from Goa (a very popular tourist resort south of Mumbai (Bombay)) will also be provided. Conference attendance fee will be compatible with what a professional living in India would expect to pay. (Senior Engineers make \$600/month). Demonstrations of his equipment will also be provided. Announcements will be made on <http://www.tewari.org>

I visited Sai Baba's ashram (a self contained city of at least 10,000) while in India and got a dormitory style room with four other guys (Malaysia, Japan, France, Ukraine) for 25 cents per day plus about 75 cents per day for food. I can say that whoever he is, Sai Baba is without a doubt the most unique person on Earth, and certainly has done great work for the benefit of the people of India. The overwhelming spirituality of India is in great contrast to our society. I sat in the security office at the Bangalore airport and talked about God, chakras, the aether, and how the material universe is formed, with the soldiers and security agents who carry those well worn, nicked and dented automatic weapons.

I of course wish you well and hope to see you all again when time permits.  
Toby Grotz [wireless@rmi.net](mailto:wireless@rmi.net)

\*\*\*\*\*

## JAPAN PSYCHOTRONICS INSTITUTE ( JPI )

JPI was founded in 1977 to study the consciousness phenomena such as metal-bending and remote-viewing. And it succeeded in the consciousness parameter in 1983. The JPI's mission is the applications of the new scientific paradigm to consciousness phenomena, new medicine, new energy, and new economics/new business management. JPI's current activities are monthly meetings on Tokyo and the publication of JPI News on membership basis.

From: Dr. Shiuji Inomata, Japan, 29 September, 00  
E-mail: [phi-x@marginal.com](mailto:phi-x@marginal.com)  
Website: [www.marginal.com](http://www.marginal.com)

\*\*\*\*\*

## **HONDA DEBUTS FUEL-CELL CAR**

Associated Press, October 2, 2000

[http://www.discovery.com/news/briefs/20000929/te\\_ap\\_fuelcell.html](http://www.discovery.com/news/briefs/20000929/te_ap_fuelcell.html)

Sept. 29, 2000 - - Honda Motor Co.'s new experimental car doesn't have the roar of a gasoline engine or the polluting exhaust. Instead, it purrs with the soft whir of a fan and the only thing coming out the tailpipe is water vapor.

The Japanese automaker showed its FCX-V3 to reporters today as part of a project with Ford Motor Co., DaimlerChrysler and other automakers to test out a technology of the future: the fuel cell.

Though the automakers won't be sharing fuel cell technology, they will be helping each other cross other hurdles such as developing fueling systems, winning public acceptance and studying possibilities for commercial production.

Fuel cells produce energy from a reaction between hydrogen and oxygen, a clean technology that is expected someday to replace the gasoline engine. But the technology is not likely to take off for at least another decade, in part because it needs a whole new system of fueling. Gas stations would have to make way for fueling stations for hydrogen.

The model will be among the more than 50 fuel cell vehicles tested over the next three years under the California Fuel Cell Partnership, a Sacramento-based project among the state of California, automakers, fuel-cell makers and oil companies. A road-test there is scheduled to start in November.

Analysts say the automakers are competing intensely to keep up in a still uncertain, futuristic technology. So far, observers aren't picking any winners in the fuel cell race.

"It's too early to tell which automaker is ahead of the others," said Masato Ogasawara, auto analyst at Daiwa Institute of Research in Tokyo.

Honda said its new fuel cell car is quieter, nimbler and lighter than its previous models. It stores the hydrogen in a high-pressure tank in the back of the car, where the trunk normally is. But having the tank in the trunk could be dangerous in an accident, as hydrogen is volatile. Honda is working on a better, safer way to store hydrogen so the tank can be placed lower in the car, where a gas tank usually is, said executive chief engineer Yozo Kami.

Honda acknowledged the fuel cell car needs more work: it doesn't work well in cold weather and travels just 110 miles before refueling. Another issue is cost: Honda refused to say how much the fuel cell or vehicle cost, except to say that they were still extremely expensive.

Honda has set 2003 for commercial production of fuel cell vehicles.

\*\*\*\*\*  
PUBLIC SERVICE ANNOUNCEMENTS  
\*\*\*\*\*

**LOW ENERGY NUCLEAR REACTIONS WORKSHOP**  
An interactive lecture-discussion experience

Featuring

Dr. Scott Chubb, Moderator  
Mike McKubre, George Miley  
Robert Bass, Harold L Fox  
Melvin Miles, Mitchell Swartz  
M. A. Imam, K. P. Sinha

November 17, 2000  
9 AM - 5 PM

Holiday Inn, Washington-College Park  
10000 Baltimore Avenue  
College Park, MD 20740  
I-95 and US Route 1 (Exit 25A)  
1-301-345-6700, Rooms: 1-800-HOLIDAY  
Complimentary shuttle to/from Metro subway  
Heated indoor pool, whirlpool, exercise facility  
Complete business center, restaurant, bar

Sponsored by Integrity-Research Institute  
1-800-295-7674 or 202-452-7674  
Fax: 1-301-513-5728  
Email: [iri@erols.com](mailto:iri@erols.com)  
Videotape Services Provided

Registration: all attendees, \$50 advance, \$65 door