

# ***Future Energy***



IRI Theme  
Song – 1 min.

*An Integrity in Research  
Initiative into  
Breakthrough Energy,  
Propulsion and Bioenergy*

*by Integrity Research Institute  
Thomas Valone, PhD, PE  
Program Director*

# POPULAR SCIENCE

THE  
FUTURE  
NOW

SPECIAL ISSUE

## FUTURE ENERGY

GAS FROM GARBAGE  
REAL FUSION  
SOLAR SATELLITES  
SAFE NUCLEAR  
AND  
THE LAST DROPS OF OIL

PLUS

How to Buy a Space Shuttle p.28

Superfast Flying Submarine p.24

Ferrari Goes Off-Road p.18 Hottest. Pepper. Ever. p.26



JULY 2011 US\$4.99



Cover of *Popular Science*,  
July 2011

- **Thorium**-fueled molten salt reactors
- **Fusion** energy (ITER)
- **Space-based** solar power
- **Biogas**
- Next-gen nuclear reactors
- and the last drops of oil

# IRI Future Energy Goals



- ◆ Expand **new energy** discoveries including wireless energy
- ◆ Develop the newly discovered modes of transport **propulsion**
- ◆ Create optimum health with bioenergy **electromedicine**

[Futureenergy.org](http://Futureenergy.org)

[BioEnergyDevice.org](http://BioEnergyDevice.org)

[IntegrityResearchInstitute.org](http://IntegrityResearchInstitute.org)



First Ever Zero-Point Energy Panel of Experts



IntegrityResearchInstitute.org

Future Energy  
Proceedings of the  
First International  
CONFERENCE ON  
FUTURE ENERGY  
COFE  
APRIL 29 - MAY 1, 1999  
Integrity Research Institute

Energy  
Propulsion  
Bioenergetics

ELECTROGRAVITICS  
SYSTEMS  
Thomas Valone, PhD  
REPORTS ON A NEW PROPULSION

HARNESSING THE GREEN WORK  
OF NATURE  
THE SCIENCE OF ENERGY  
COVER BY  
TOMAS VALONE, PH.D.

ZERO  
POINT  
ENERGY  
The Future of the Future  
Thomas Valone

Future  
Energy  
Annual

Bioelectromagnetic  
Healing  
A Handbook for the  
Integrity Research Institute  
By Thomas Valone, Ph.D.

Integrity  
Research  
Institute

The scientific integrity  
in emerging energy sciences

nonprofit 501(c)3 organization



GRAVITATIONAL  
CONTROL  
RESEARCH  
By T.T. Brown, Ph.D.  
Integrity Research Institute

ELECTRO  
GRAVITICS  
SYSTEMS II  
Thomas Valone, PhD  
Integrity Research Institute

FASTER THAN LIGHT  
REPORT  
Integrity Research Institute

ZERO POINT  
ENERGY  
TO THE  
FUTURE  
Integrity Research Institute

# 1999 Conference on Future Energy



# nature

11 March 1999 Volume 398 | issue no. 6723

www.nature.com

*CD-Proceedings*  
**CONFERENCE ON FUTURE ENERGY**  
**COFE**  
**29 April - 1 May 1999**

**20 Speakers, 9 of whom are PhDs & 15 Audios (All Plenary Sessions) & 14 Audios (All Workshop Sessions) & 23 Papers Published**

**ADOBE ACROBAT**

**in  
 nds  
 arning**

## US State Department gets cold feet about cold fusion

At the centre of a publically modified research on unconventional energy sources which, he said, had been genetically bred to be scaled down or cancelled because of doubts about the credibility of the research.

[WASHINGTON] A meeting that was to have been held at the US State Department next month to highlight research on unconventional energy sources seems likely to be scaled down or cancelled because of doubts about the credibility of the research.

The First International Conference on Free Energy was to have taken place on 29 and 30 April at the State Department auditorium. The conference is sponsored by the Integrity Research Institute (IRI), a Washington-based group that promotes energy concepts ranging from "senior research" to "assisted nuclear reactor" to "cold fusion".

After a meeting between Foley, Valone and others on Monday (8 March), the department remained undecided as to whether it will cancel or curtail its involvement in the conference. One source said the organizers were considering moving it to a hotel.

Valone, who is also a patent examiner with the US Patent and Trademark Office, found himself in hot water with his own agency last year when he sent out an Internet notice to "all able-bodied infinite energy



The First International

## Conference On Future Energy

Integrity Research Institute

## WORKSHOPS

Holiday Inn Bethesda  
 Bethesda, Maryland

Saturday, May 1, 1999

## Science & Government Report

SHUNNED BY AGENCIES, 'FREE ENERGY' CONFERENCE FINALLY FINDS A HOME

It was billed as a conference on free energy, but its organizers, who'd thought they had their meeting place lined up since it changed from the government, ended up having to pay. Disinclined from the State Department, after one of the few scientists in the agency was tipped off by the book publisher's, without notice, organizers then tried to move over to the Commerce Department, where the sizeable auditorium apparently is available to any department employee who provides sufficient notice. Also, the same person who ruled on free energy to State, the American Physical Society's Robert Park, took it upon himself to banish them from Commerce as well, and succeeded.

Park, who calls against fringe science in the APS weekly top sheet "What's New," admits that he alerted both Peter Zornowman, the science adviser at State's Arms Control and International Security division, as well as a top official of Commerce's National Institute of Standards and Technology, whom he won't name, about the conference's true nature. A brief e-mail to the organizers from the Department of Energy was quickly quashed, apparently without Park's intervention.

In the end, the Washington-based Integrity Research Institute, which organized the event, had to settle for a Holiday Inn in nearby Bethesda for the three-day event that ran through May 1. Cold fusion guru Eugene Mallove, who publishes *Jeffrey Energy* magazine, came through with the funds needed to rent the rooms.

All the posters helped the conference to attract an enthusiastic, if small, crowd. Various schemes for free energy were touted, including cold fusion, a "radiant energy" device that extracts radio frequency energy from lightning bolts, and energy beamed from the moon for clean fusion fuel. An onsite bookstore dispensed works ranging from electromagnetic, the "anti-gravity" technology that some claim helps to power the B-2 stealth bomber, to biographies and the complete patent collections of Nikola Tesla, the Serbian immigrant who invented the alternating current motor and helped Westinghouse beat out Thomas Edison to establish AC electricity as the standard. What free energy aficionados advise most about Tesla was to research later in life of a wireless delivery system for electricity. Just as with other free energy schemes, they say, the state of industry could see no way to profit on such a scheme, and pulled their support for Tesla's work.

But the highlight of the conference was an appearance by Steven M. Green, the former emergency room physician



Volume XXIX, Number 9, May 15, 1999  
 ISSN 0968-9551

who heads the nonprofit Center for the Study of Extraterrestrial Intelligence. Working versions of flying saucers, he informed attendees, have been built by a super-secret consortium of the big defense contractors, and he himself is on the board of a small company, which he won't identify, that is building a prototype saucer.

What do flying saucers have to do with free energy? The same counteracting electromagnetic fields that allow UFO's to ambulate gravity and allow travel at faster than the speed of light could make the world's fossil-fuel based economies obsolete overnight, says Green. He claims the technology that allows UFO's to defy gravity is well-known to the military industrial complex, but is kept under wraps in order to not destabilize the entire world.

Attendees weren't all there just for free energy. Steven Elwick, an electrical engineer who publishes *Electric Research*, shows in development an alternative medicine to his magazine for good measure. Elwick lives in a trailer in the desert outside Phoenix, and he'll be just fine when chaps begin in the cities come January 1, 2000, he told SCF.

Park, who dropped by on the opening day, says he was informed by an organizer that an armed guard was in attendance. SCF, which popped up a day later, was in the middle of a cordial conversation when a buzz went up. Park had been sighted again. But this time it turned out to be a false alarm.

### NO RECORDS SET AS NINE WOMEN ARE ELECTED MEMBERS OF ACADEMY

No giant step toward gender equality was set last month when the National Academy of Sciences elected nine women to membership. The figure is shy of the record of 11 who were let in during 1996, but is one higher than last year's 0/0.

The academy admitted a total of 60 new members this year during its annual meeting last month. The number of women who held membership in the august body now stands at 114, four higher than last year, or just over 6% of total active membership of 1825.

Two women were among the 15 non-voting foreign associates admitted to the academy. Despite their addition, the number of female foreign members actually declined by one during the year, to 14, even as total membership in the category rose there, to 313.

**Conference on Future Energy**

**Betavoltaic Battery**

- Home-printed
- 200+ pages
- Published by Integrity Tech
- 200+ energy sources
- No assembly needed
- Dr. Paul Brown, inventor
- Order: 4-833-411

**Nuclear Electricity Sources**

**Dr. Paul Brown Bruce Perreault**



Photo Courtesy of Ms. Jeane Manning



# Future Energy Surge of 2009



*SPESIF 2009*



- World Future Energy Summit, **Abu Dhabi**, Jan. 19-21, 2009
- SPESIF Future Energy Source Workshop, **Huntsville AL**, Feb. 24-26, 2009
- Future Energy Forum, **Bilbao, Spain**, June 9-11, 2009
- Conference on Future Energy, **Washington DC**, Oct. 9-11, 2009 (COFE3 was third in a series, tenth anniversary)

**Futureenergy.org**

# Programs Fulfilling IRI's Non-Profit Mission



**Energy**  
**Propulsion**  
**Bioenergetics**

[www.IntegrityResearchInstitute.org](http://www.IntegrityResearchInstitute.org)



# **IRI Future Energy Projects**

- **Electric Antioxidant Clothes**
- **PREMIER High Voltage Electrotherapy**
- **Pulsed Electromagnetics (EM Pulser)**
- **OsteoPad Electric Bone Hardener**
- **Tunneling Diode Array Energy Generator**
- **Spiral Permanent Magnet Motor**
- **Inertial Shield and Electrogravitics**
- **Public Education (books, conferences, Future Energy eNews, videos, audios)**

**[Futureenergy.org](http://Futureenergy.org) and [BioenergyDevice.org](http://BioenergyDevice.org)**



# INTEGRITY RESEARCH UNIVERSE

COST

\$250K

\$100K

\$10K

\$5K

\$1K

100%

80%

60%

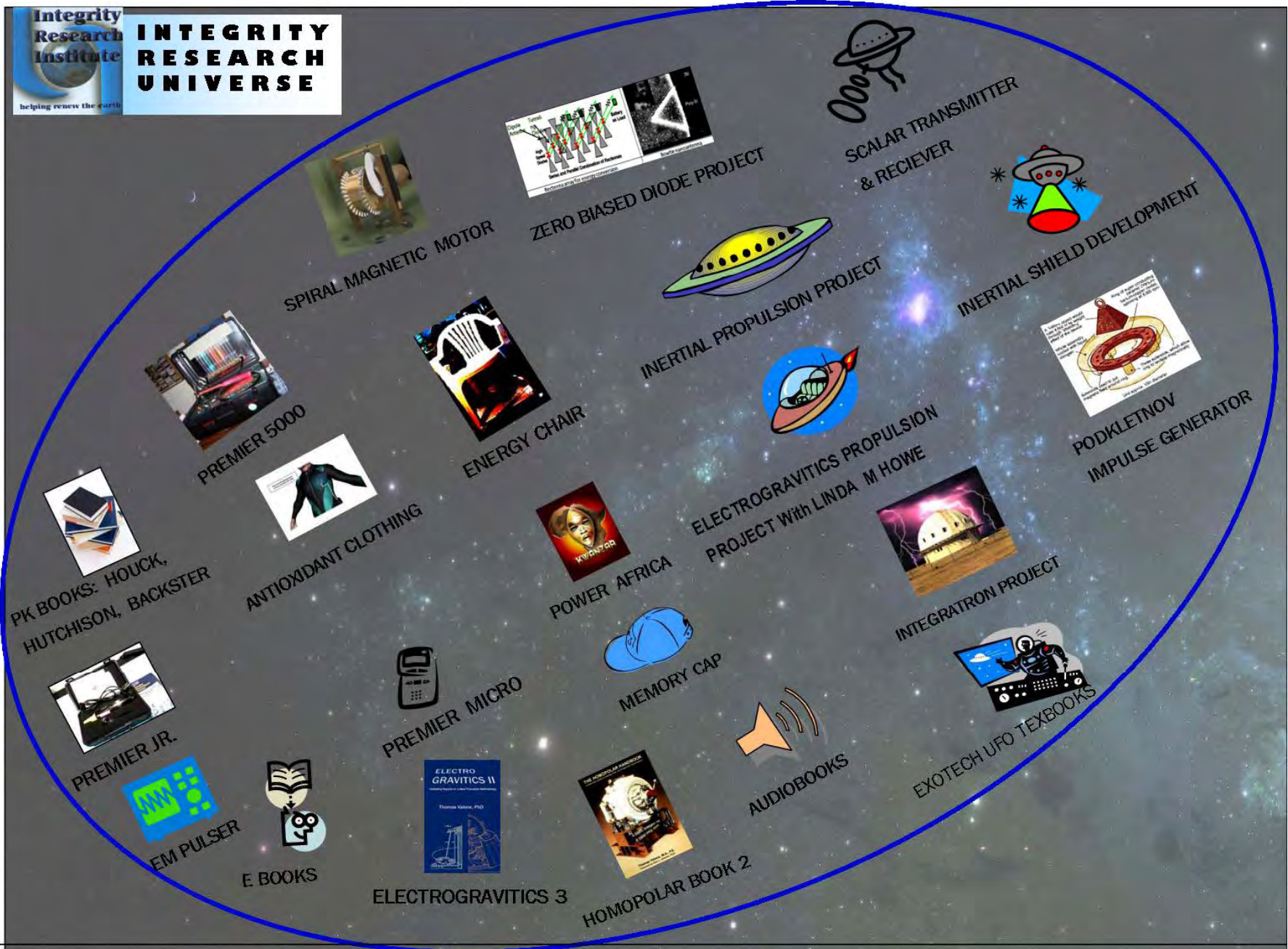
50%

40%

20%

10%

DEVELOPMENT



# Athena

- Goddess of Wisdom and Light which can represent the science of high voltage

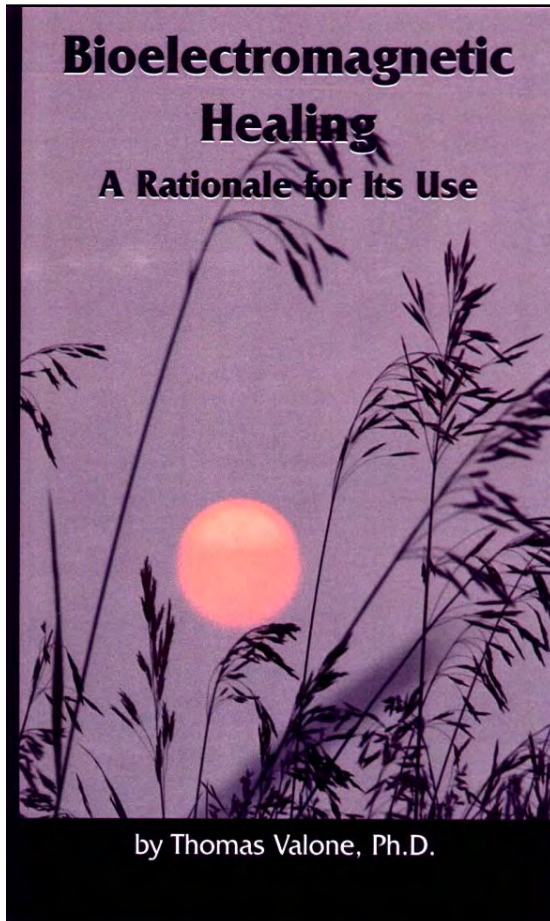
**Bioelectromagnetics**

- Daughter of Zeus
- Goddess of Lightning



# BIOENERGETICS PROGRAM

## Energy Medicine Projects



- Electric Clothes, OsteoPad, PREMIER
- HF EMF can be “pulsed” – called PEMFs
- Low **transmembrane potential TMP** = disease = low Na-K pump & ATP impairment
- **External high voltage PEMFs increase TMP**
- Boosting TMP while creating electron transfer to fight free radicals helps the immune system and gives the body **MORE ENERGY**
- Electric gradients vs. chemical gradients

**“Electrons are antioxidants and high voltage EMFs strengthens immune response.” – Dr. T. Valone**

# Electrons are Antioxidants

## FREE RADICALS STEAL ELECTRONS

creating more free radical DAMAGE in a chain reaction (10,000 times)

## Damaged mitochondrial DNA causes aging

## ANTIOXIDANTS STOP FREE RADICALS WITH ELECTRONS

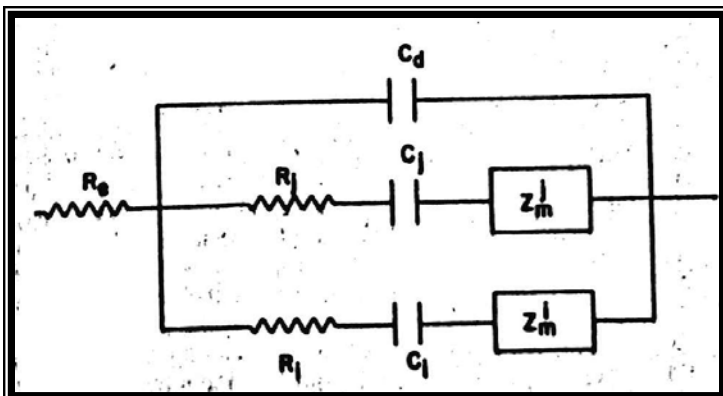
### References

- **“Oxidative damage causes aging”** - *Life Enhancement*, Oct. 2004
- “Dying before their time: studies of prematurely old mice hint that DNA mutations underlie aging.” *Science News*, July 10, 2004, p. 26
- “Mice and mitochondria” Martin, *Nature*, 2004, V. 429, p. 357,417

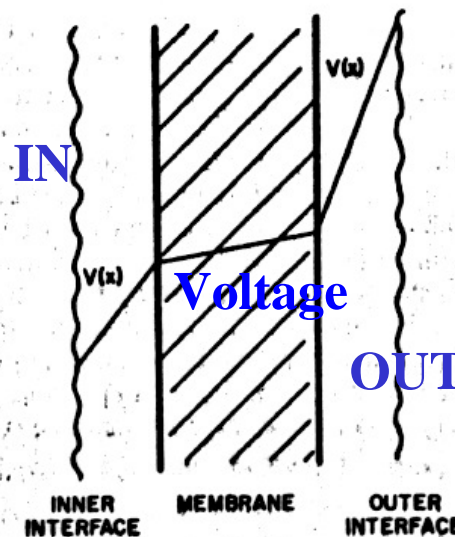
# CELL MEMBRANE



**TransMembrane Potential = TMP = 10 million volts per meter!**



Membrane equivalent circuit



Voltage-gated channels: **TMP = -70 to -100 mV** in healthy individuals. **TMP is 100kV/cm** with a capacitance of 1 microfarad/cm<sup>2</sup>

# Bioenergy Products

PAGE 19

## PREMIER JUNIOR LINE (*Photonic Rejuvenation Energizing Machine & Immunizing Electrification Radiator*)

Our bestselling bioenergy machines, have just been improved and expanded to 4 different models. Based on Tesla and Rife Technologies and the Azure Patent, these machines energize the body in a very short exposure. Uses the Nobel gas tube to deliver antioxidant electrons into the body tissues which studies show directly neutralize free radicals. Invigorating and disinfecting, helps disease resistance. All come with a 30 day money back guarantee and 1 full year warranty for parts and labor.

### PREMIER Jr. 100 or 200

These models include the High voltage coil, small case and 1 tube. The model 100 has a Y-shape which is ideal for neck and extremities treatment and the 200 model has a small mushroom shape ideal for concentrated treatment in one area. Both are just as effective. \$ 495.



### PREMIER Jr. Model 500

This model has the same benefits as the others plus 4 tubes: 1 mushroom small, 1 mushroom large, both ideal for concentrated energy in one area. 1 Y-shaped, excellent for neck and knee areas. 1 comb-shaped ideal for scalp, fingers and toes. Large high impact case included. \$795.



### PREMIER Jr. Model 300

This model includes the high voltage coil, high impact medium size case and two tubes: 1 small mushroom and 1 Y-shaped. Having both tubes gives you complete coverage of all body parts and a choice for your specific need. If you want to treat your neck or extremities, use the Y tube. If you want to concentrate on one area, use the mushroom tube. \$ 595.



# Photonic Rejuvenation Energizing Machine & Immunitizing Electrification Radiator (PREMIER)



Dr. Richard Gerow  
with Model 200



PREMIER Junior  
Model 100



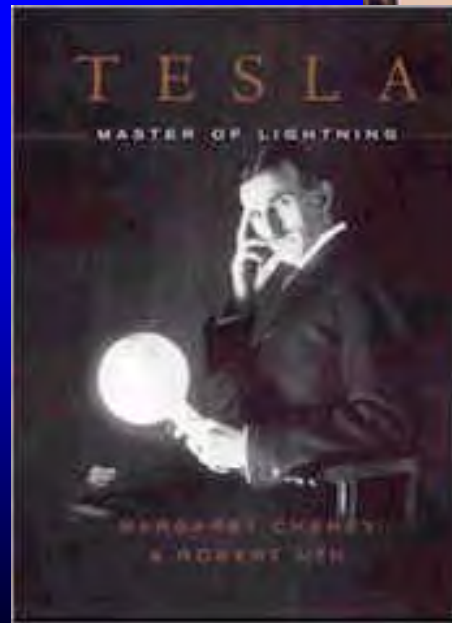
Dr. Jacqueline Panting  
using Model 2500



# Energy Chair

## IRI Bioenergy Project

- Recreation of the Autocondensation Couch in a more compact form
- HV broadband PEMFs
- Whole body TMP boost
- Debut at Whole Person Healing Conference 2005



# Bone Knitting OsteoPad™

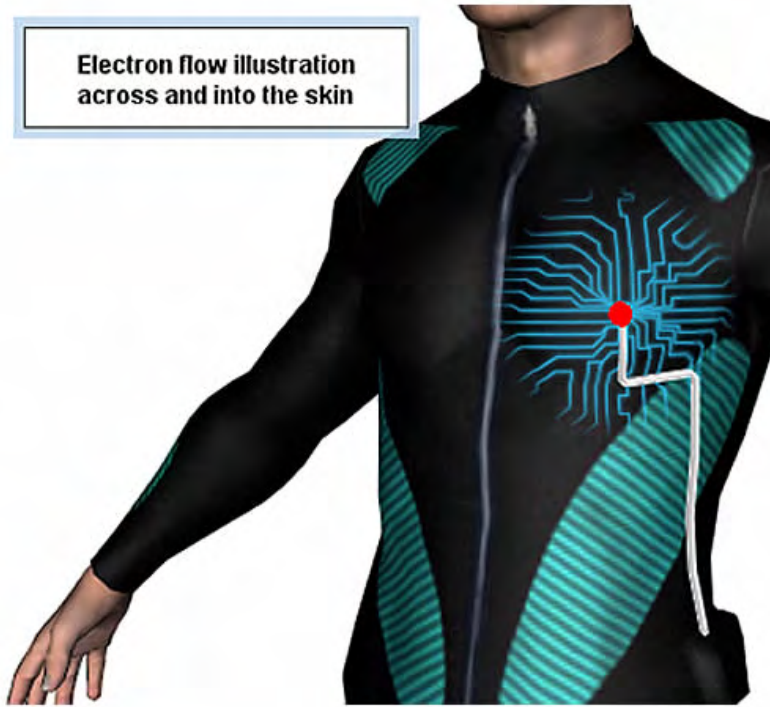
- 1 out of 2 people will develop **osteoporosis**\*
- **OsteoPad™** provides a patented EM signal proven to stimulate calcium transport across bone cell membrane, just like weight bearing exercise creates piezoelectric signals
- **Heals bone fractures in ½ of the time**
- Strengthens bones of elderly *while they sleep*, reversing osteopenia and osteoporosis
- In development by IRI in cooperation with Dr. Manning who patented an early version

\*Time, October 25, 2004, p. 101

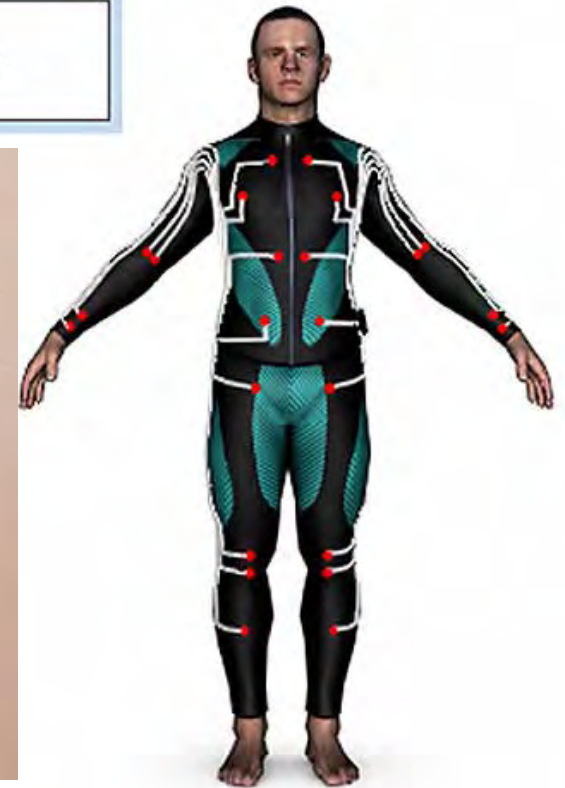
# Electric Antioxidant Clothing

Patent pending – Dr. Jacqueline Panting

Electron flow illustration  
across and into the skin



Flow of electrons



Supplying antioxidant microcurrent electrons to skin-tight clothing boosts energy and performance for athletes and regular people

# Dr. Andrija Puharich MD

## Nerve Deafness Project

- Restore and test his TD 1000 audio stimulator which cured nerve deafness
- Donated to IRI by Puharich family
- US Patent 3,563,246

[54] **METHOD AND APPARATUS FOR IMPROVING NEURAL PERFORMANCE IN HUMAN SUBJECTS BY ELECTROTHERAPY**  
13 Claims, 3 Drawing Figs.

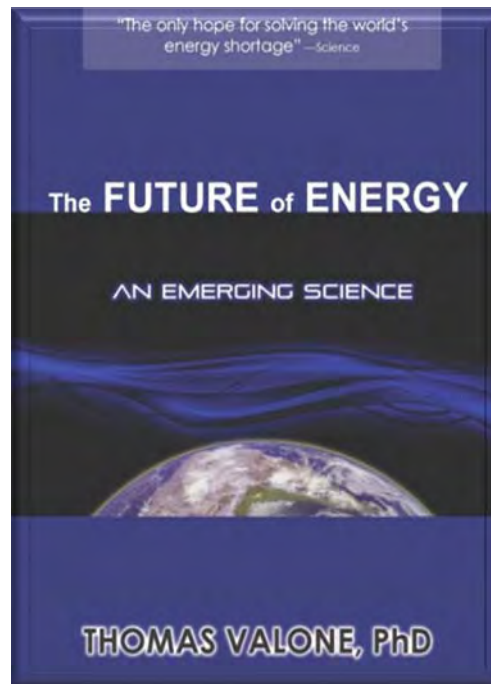
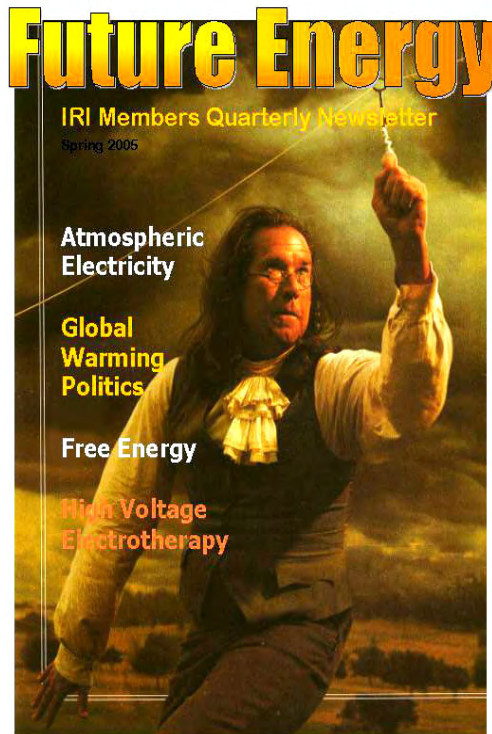
[52] U.S. Cl. .... 128/422;  
331/47, 331/56  
[51] Int. Cl. .... H05g /00  
[50] Field of Search..... 128/362,  
380, 404, 409, 413, 419, 420, 421, 422

**ABSTRACT:** A method of patient rehabilitation by electrotherapy including periodically electrically stimulating the patient in the region of his facial nerve system by a controlled alternating electrical treatment signal, which signal is an amplitude modulated, double sideband signal of less than 100 kHz. The treatment signal is applied to the patient's head through a pair of electrodes comprised of two bare electrodes or two insulated electrodes, or one insulated electrode and one bare electrode. The patient's head is an element in an LC series resonant circuit established with the treatment signal source.

# Integrity Research Institute

[IntegrityResearchInstitute.org](http://IntegrityResearchInstitute.org)

- ENERGY RESEARCH AND EDUCATION WITH SCIENTIFIC INTEGRITY
- Conferences, Books, Reports, Products & Future Energy eNews



- **ADVOCACY FOR THE COMMON GOOD** without favoritism
  - nonprofit 501(c)3 organization that accepts tax-deductible donations

# ENERGY PROGRAM

June 25, 2002

CNN Moneyline

LOU DOBBS

CNN TOM VALONE

PRES., INTEGRITY RESEARCH INST. 5:31p ET  
HOLLYWOOD WALK OF FAME CNN ROUND BALL REJE

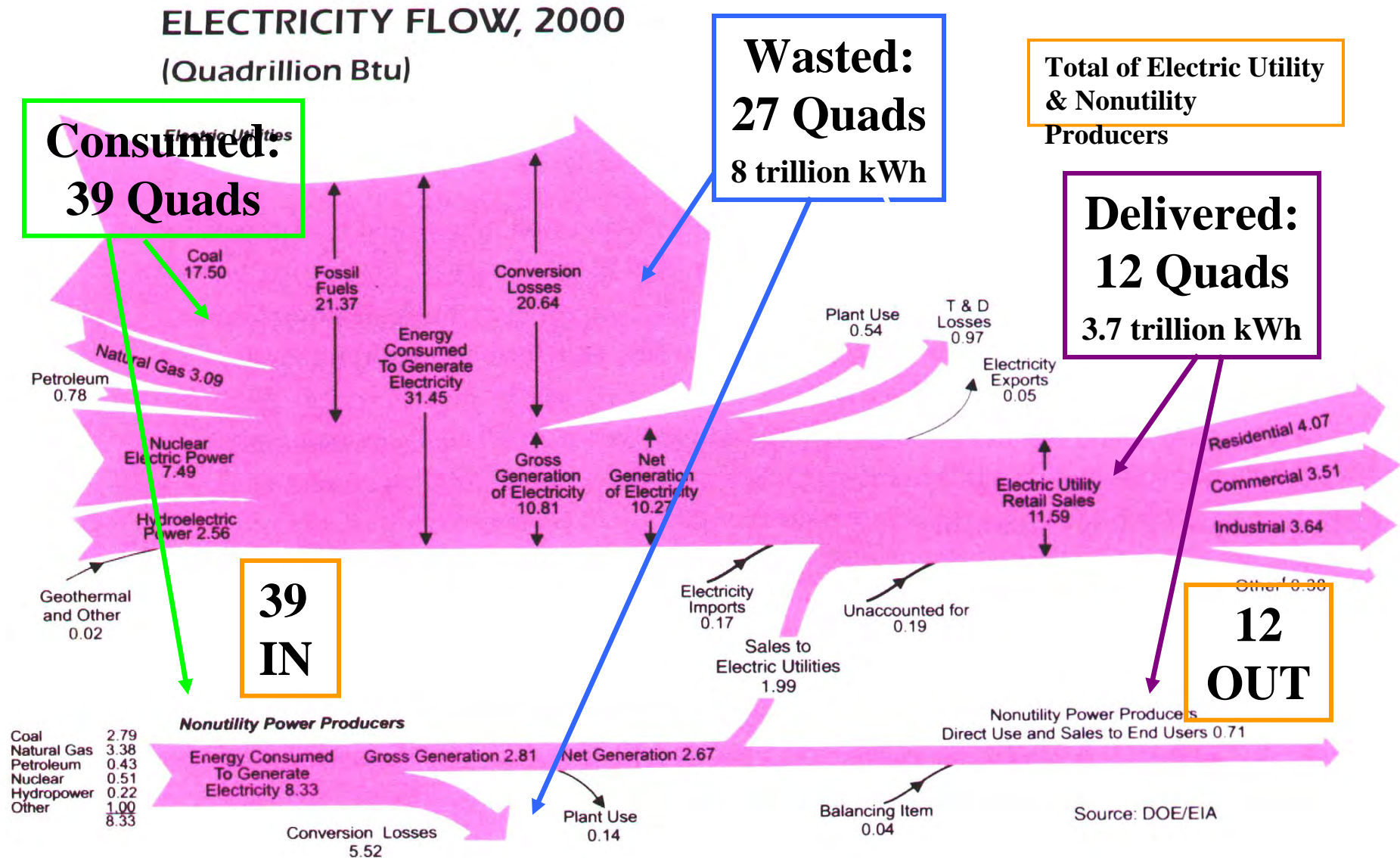
# WATCHMEN Movie Clip 2009



With a capitalist approach to energy

# 2/3 of US Electricity is Wasted

Ref: DOE & U.S. Energy Association, 2002





Shell Oil addresses the present one million new people per week population growth in “Energy for the Future” (2 min.)

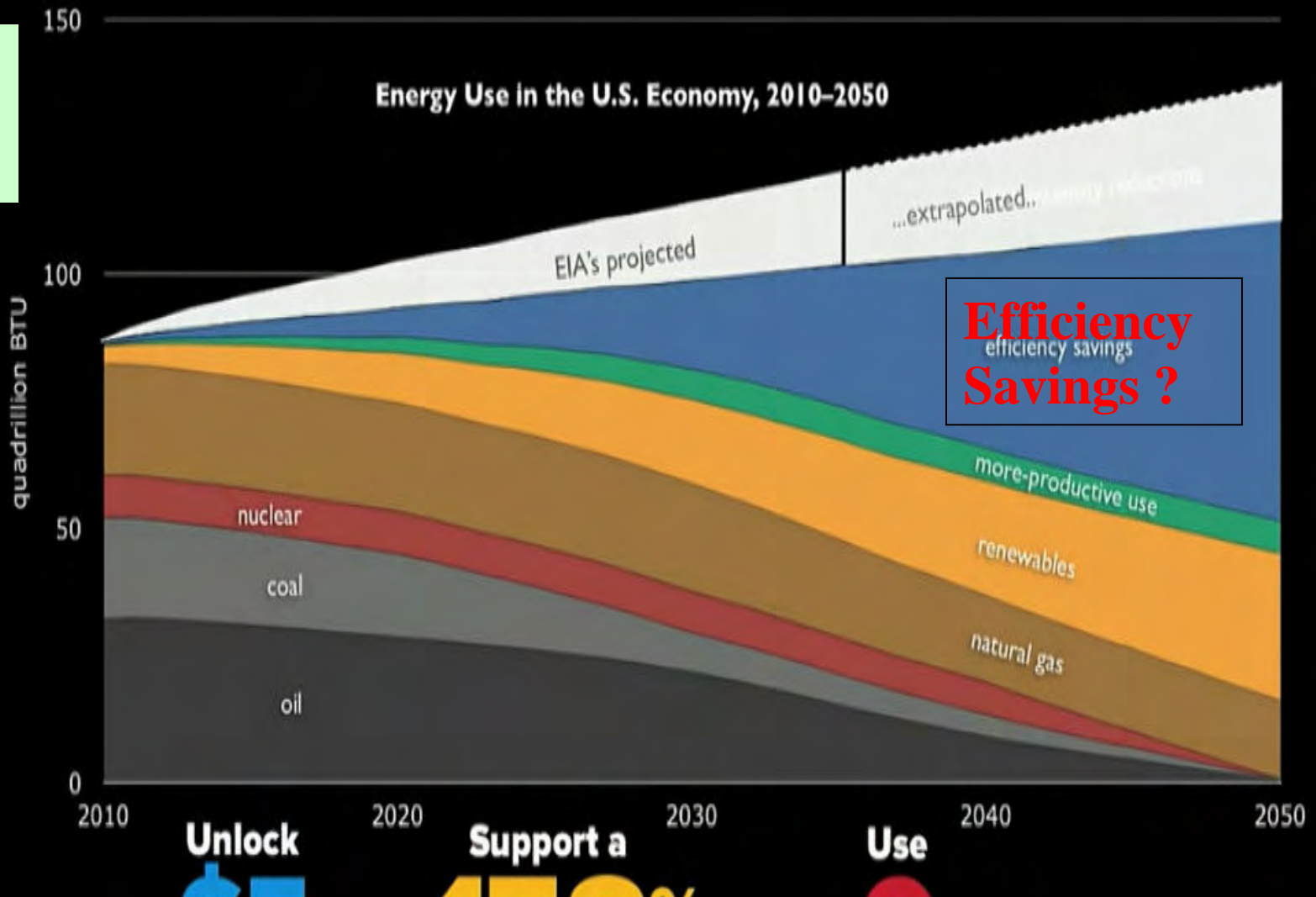


[http://www.youtube.com/watch?v=J2khSYZC9ks  
&list=PL1A4D83E7390B2A47](http://www.youtube.com/watch?v=J2khSYZC9ks&list=PL1A4D83E7390B2A47)

# Reinventing Fire provides a credible path to a U.S. economy free of oil and coal by 2050

Book release in 2011

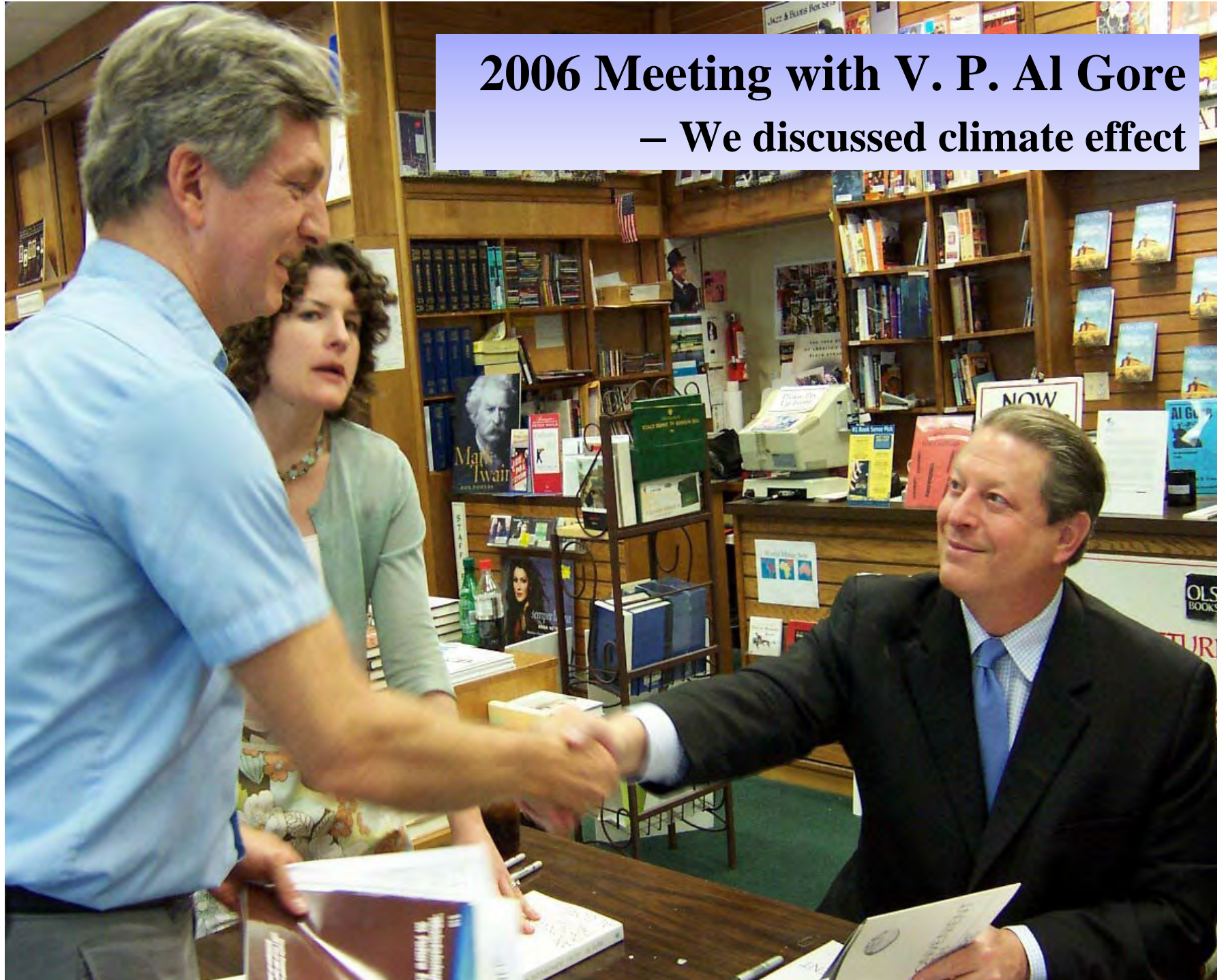
Reinventing Fire video on YouTube



**Efficiency Savings ?**  
efficiency savings

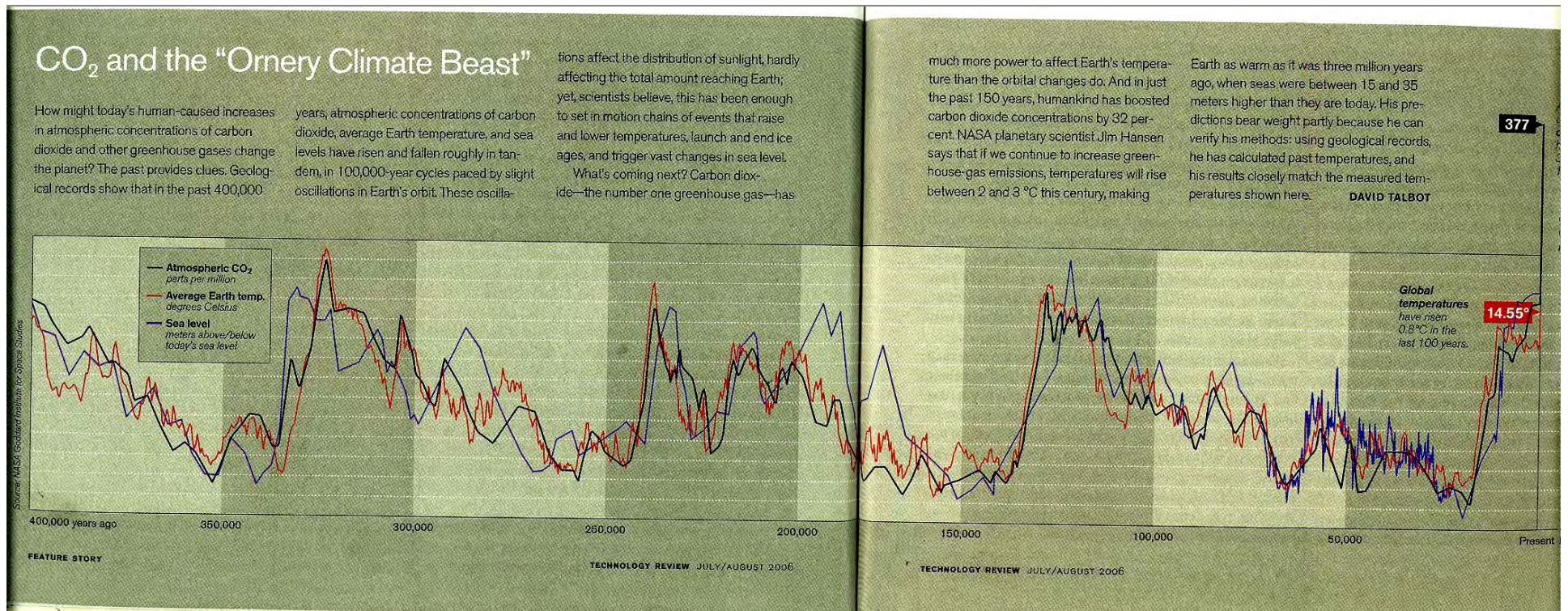
Rocky Mountain Institute, [RMI.org](http://RMI.org), founded by Amory Lovins

**2006 Meeting with V. P. Al Gore**  
– We discussed climate effect



# Earth's Most Recent 400,000 Year Climate History

credit: Dr. Jim Hansen, NASA Goddard Inst. for Space Studies



MIT's *Technology Review*, July/August, 2006

# CO<sub>2</sub> and the "Ornery Climate Beast"

How might today's human-caused increases in atmospheric concentrations of carbon dioxide and other greenhouse gases change the planet? The past provides clues. Geological records show that in the past 400,000

years, atmospheric concentrations of carbon dioxide, average Earth temperature, and sea levels have risen and fallen roughly in tandem, in 100,000-year cycles paced by oscillations in Earth's orbit. These osc

**Global CO<sub>2</sub> Level in 2013**

400 ppm

Temp Gap: 4°C (7°F)

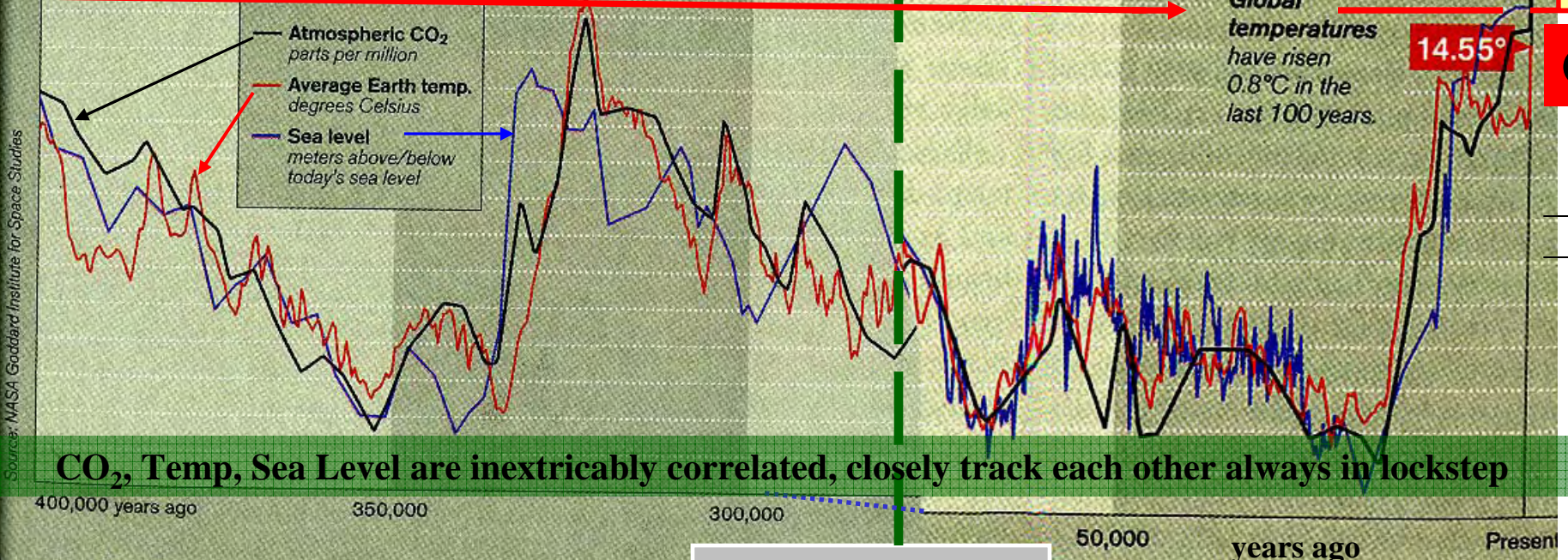
**Sea Level Gap**

**Baseline:**

**0 m Sea Level = 290 ppm CO<sub>2</sub> = 15 °C World Temp**

Global temperatures have risen 0.8°C in the last 100 years.

14.55° C



**CO<sub>2</sub>, Temp, Sea Level are inextricably correlated, closely track each other always in lockstep**

**Break in graph**

Source: NASA Goddard Institute for Space Studies  
 FEATURE STORY  
 Technology Review, July/August 2006

**Projected Sea Level Rise is 80 meters**

**KEY to graph: 10 ppm = 0.5°C = 10 meters**

--- Graph enhancements by Thomas Valone, PhD, PE  
 November, 2006

# A WORLD 4°C WARMER

It may happen in our lifetime. **Shanta Barley** investigates what life will be like

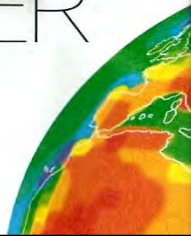
BY 2055, climate change is likely to have warmed the world by a dangerous 4°C unless we stop pumping greenhouse gases into the atmosphere the way we do now. This is the startling conclusion of a study by the UK Met Office, unveiled at a conference in Oxford this week.

Why so soon? Because temperature rises caused by greenhouse gas emissions are expected to trigger dangerous feedback loops, which will release ever increasing amounts of greenhouse gases. The nature and scale of these feedback loops is a subject of vigorous debate among climate scientists, but warmer oceans, for instance, may liberate more

dissolved CO<sub>2</sub>, and plants may decay faster in a warmer climate. The Met Office ran 17 different models with these feedbacks. All concluded a 4°C world by 2055 was likely if emissions continue to rise. Even if we are lucky, we are still likely to hit 4°C by 2070.

WH  
yours  
130 c  
confe  
increa  
15°C  
of the  
Califo  
rise b  
Stefa

Institute for Climate Impact Research, Germany. Even the less pessimistic estimate of a 0.65-metre rise by 2100 would put at least 190 million people a year at risk from floods, says Rahmstorf's colleague Jochen Hinkel.



**Then in 2009,  
TWO DIFFERENT  
CLIMATE GROUPS:  
SAME  
PREDICTION**

## The Amazon - gone

In a 4°C world, climate change, deforestation and fires spreading from degraded land into pristine forest will conspire to destroy over 83 per cent of the Amazon rainforest by 2100, according to climatologist Wolfgang Cramer at the Potsdam Institute for Climate Impact Research in Germany. His climate models show global warming alone

## The Nation

Washington Post, 9/25/09, p. A4

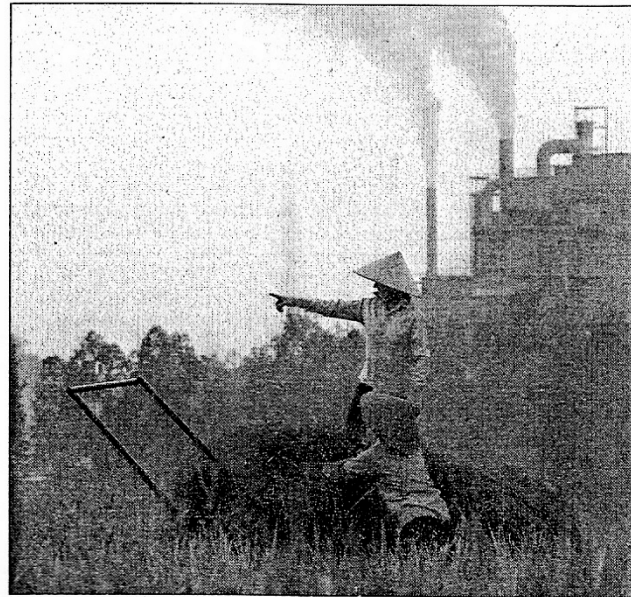
# New Analysis Brings Dire Forecast Of 6.3-Degree Temperature Increase

By JULIET EILPERIN  
*Washington Post Staff Writer*

Climate researchers now predict the planet will warm by 6.3 degrees Fahrenheit by the end of the century even if the world's leaders fulfill their most ambitious climate pledges, a much faster and broader scale of change than forecast just two years ago, according to a report released Thursday by the United Nations Environment Program.

The new overview of global warming research, aimed at marshaling political support for a new international climate pact by the end of the year, highlights the extent to which recent scientific assessments have outstripped the predictions issued by the Nobel Prize-winning U.N. Intergovernmental Panel on Climate Change in 2007.

Robert Corell, who chairs the Climate Action Initiative and reviewed the UNEP report's scientific findings, said the significant global temperature rise is likely to occur even if industrialized and de-

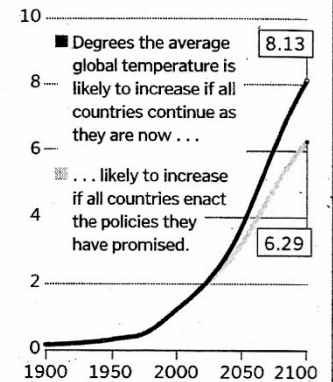


Farmers are overshadowed by a smoke-belching cement factory outside Hanoi. Even with sharp emissions curbs, temperatures may rise disastrously.

## Warming Trend

Researchers say global temperatures as likely to rise more than six degrees by the end of the century even if every country enacts all climate legislation it has promised to enact to date.

## Temperature increases, in degrees Fahrenheit



SOURCE: Sustainability Institute

THE WASHINGTON POST

**PRIZE FIGHT**  
Time to revamp  
the Nobels

# News

WEEKLY October 3 - 9, 2009

# Future Earth

New Scientist, 10/3/09

# Prometheus

- Son of Titan Iapetus, Steals Fire from the Gods to give to Mankind and is punished.
- Represents our current stage of Irresponsible Energy usage and disregard for consequences.
- Rescued by Hercules, thus showing that a **Herculean effort** is needed to overcome irresponsible usage.



# President Clinton on Climate and Energy





# **EEStor Ultracapacitors**

## **for Electric Vehicles, Laptops**

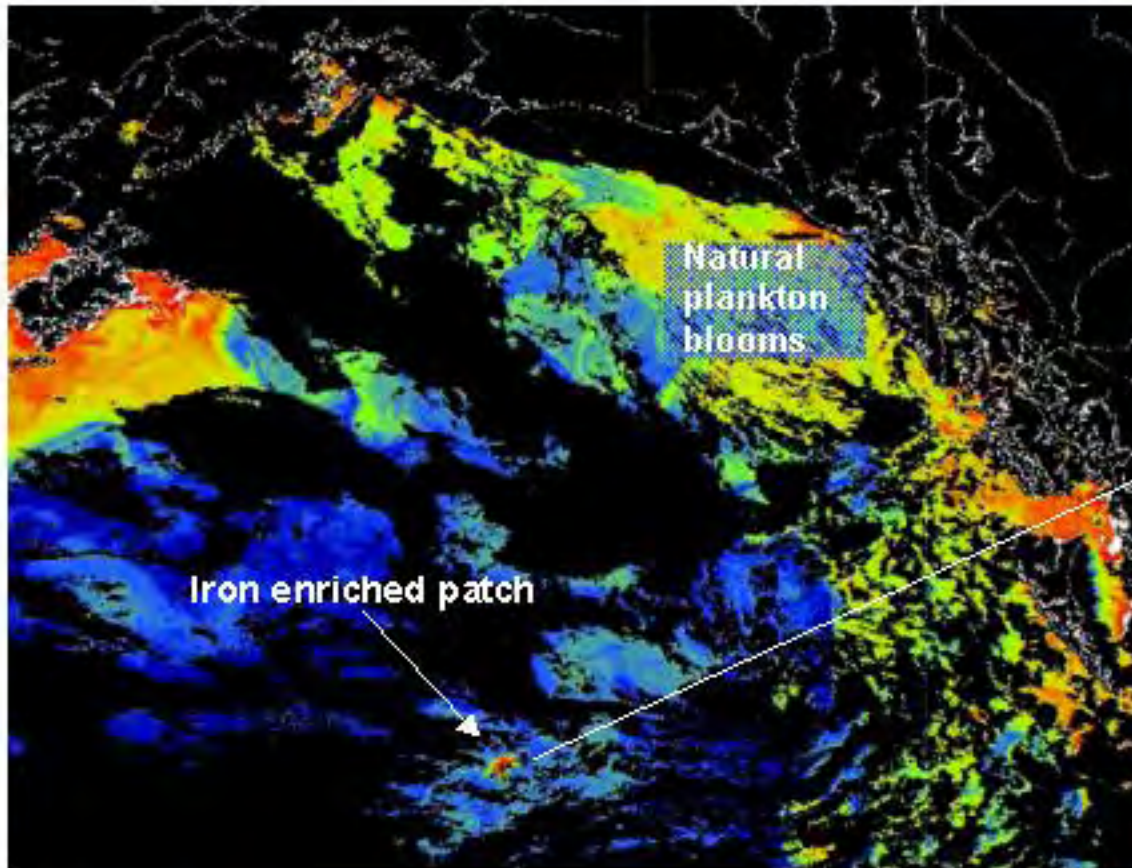


**ZENN car will be the first application of EEStor capacitors late in 2012**

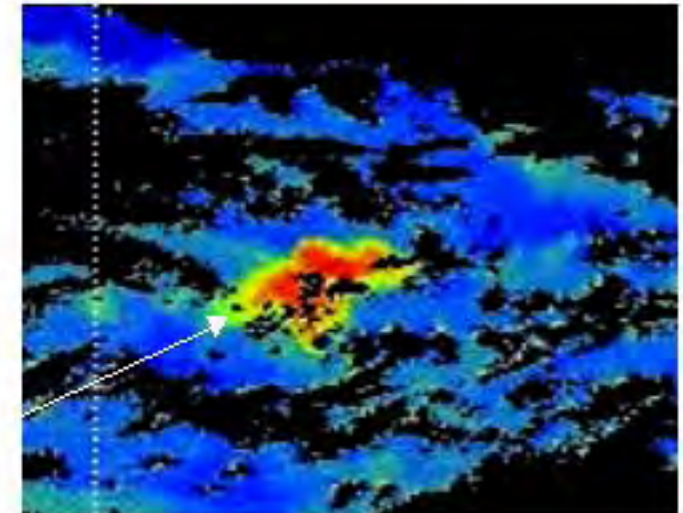
**Technology Review, Jan 22, 2008**

- **EEStor Inc. based in Texas**
- **10x more energy than batteries**
- **Half the cost of batteries**
- **No replacement needed over life**
- **Quick recharge**
- **ZENN Cars collaboration**

Iron stimulated blooms are very similar to natural blooms



**SERIES (2002) iron fertilization patch near Alaska compared with a natural bloom**



**Close-up of the SERIES bloom (~ 2000 km<sup>2</sup>) 20 days after iron application**

**A Planktos bloom will be 5-10 times this size ... still a small fraction of the surrounding natural blooms**

2012 success published in Nature magazine

# Iron Seeding for Plankton Bloom CO2 Capture Vindicated

SPACE TECH ENVIRONMENT HEALTH LIFE PHYSICS&MATH SCIENCE IN SOCIETY

## My New Scientist

[Home](#) | [Environment](#) | [News](#)

See Russ George DVD  
IRI's COFE2 in 2006

### Geoengineering with iron might work after all

18 July 2012 by [Michael Marshall](#)  
Magazine issue 2874. [Subscribe and save](#)  
For similar stories, visit the [Climate Change](#) Topic Guide

**Editorial:** ["We can't afford to neglect ways to halt global warming"](#)



PRINT



SEND

IF YOU want to help stop climate change, try tipping some iron into the sea. For years, this geoengineering idea has been considered a busted flush, but new results suggest it really can work.

Tiny floating algae called phytoplankton pull carbon dioxide out of the atmosphere. When they die, the plankton sink to the seabed, taking the carbon with them. Over thousands of years, this strips CO<sub>2</sub> from the air, lowering temperatures.

But many ocean regions are short of iron, which plankton need to grow, so the process does not occur. Adding iron should stimulate plankton growth in these areas.

That was the theory, at least. In practice, it is charitable to say the results have been mixed. For many people, the idea died in 2009, when a field trial called



Algae love iron (Image: [Power & Photo Library](#))

# Capturing Ambient Electromagnetic Energy To Drive Small Electronic Devices

July 8, 2011 by Editor Ray Kurzweil

Georgia Tech School of Electrical and Computer Engineering professor Manos Tentzeris holds a sensor (left) and an ultra-broadband spiral antenna for wearable energy-scavenging applications. Both were printed on paper using inkjet technology.

Researchers at **Georgia Tech** School of Electrical and Computer Engineering have discovered a way to capture and harness energy transmitted by radio and television transmitters, cell phone networks, and satellite communications systems by scavenging ambient energy from the air.

The researchers used inkjet printers to print sensors and **ultra-wideband antennas** on paper or flexible polymers, functioning from 100 MHz to 60 GHz.

**Energy Harvesting  
is now Mainstream  
Free Energy!**

Prof. Model has Terahertz antennas



B  
R  
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A  
K  
T  
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R  
O  
U  
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H

# Innowattech – 500 kW per km

- Piezoelectric panels for roadways and train tracks
- Generates electricity from passing vehicles
- Game changing invention ready for installation
- Should be developed in this country as well
- Advocated by IRI in *Future Energy Annual 2012*

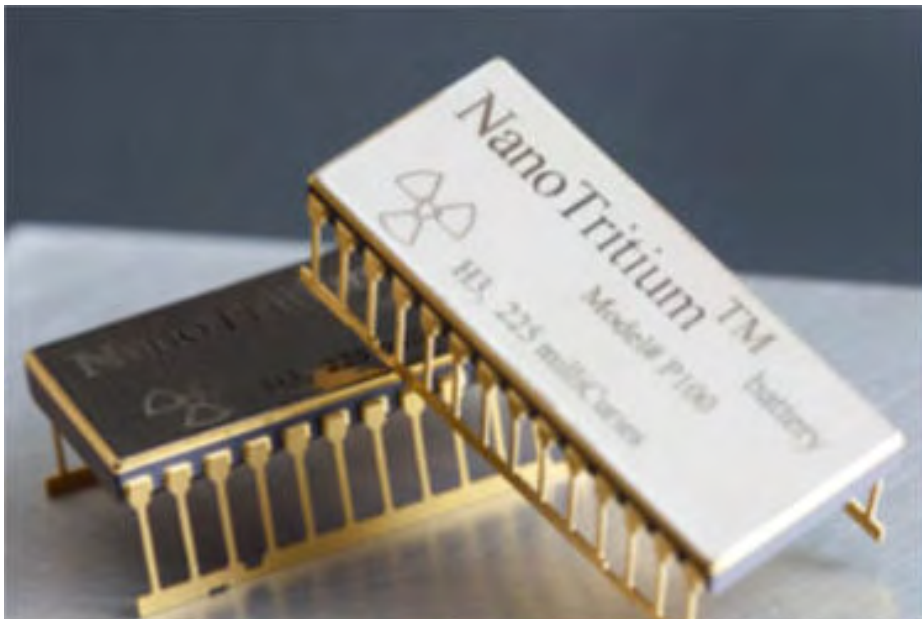


Piezo panels ready for insert



# Tritium Betavoltaic Battery

## BREAKTHROUGH



CityLabs.net Model P100

BetaBatt Inc. - SBIR grant from NSF

U of Wisconsin solved degradation with liquid electrodes

- ECN magazine 7/2012
- Nanowatt power - AFRL
- **20 – 40 year lifespan**
- IRI advocacy for 10 yrs.
- Paul Brown IRI COFE 1999, Patent # 4,835,433
- IEEE Spectrum, 2004 “Daintiest Dynamos”
- **Ray Kurzweil** “Ten Coolest Technologies - PC magazine, 7/12/06

# BREAKTHROUGH Polymer Generates Energy ONLY from a Wet Surface

- <http://bcove.me/31dl8lll>
- MIT reports a polymer with a piezoelectric layer *generates electricity* only from a **moisture gradient** without any pressure!
- 30 second MIT video shows movement as polymer dries and then flattens out to get wet again – a true free energy generator!

NewScientist

Moisture turns film into artificial muscle

10 January 2013 by [Jacob Aron](#) - New Scientist

# Magnetic Field Gradients

## The Stern–Gerlach Experiment and Electron Spin

*Modern Physics, Schaumm's Outline Series, Gautreau , McGraw Hill, 1978*

In the *Stern–Gerlach experiment*, performed in 1921, a beam of silver atoms having zero total orbital angular momentum passes through an *inhomogeneous* magnetic field and strikes a photographic plate, as shown in Fig. 21-1. Any deflection of the beam when the magnetic field is turned on is measured on the photographic plate.

**Their experimental setup:** The magnetic field  $B$  is more intense near the pointed surface at the top than near the flat surface below, creating a slope in a graph of  $B$  vs.  $z$ , which is the gradient  $dB/dz$ .

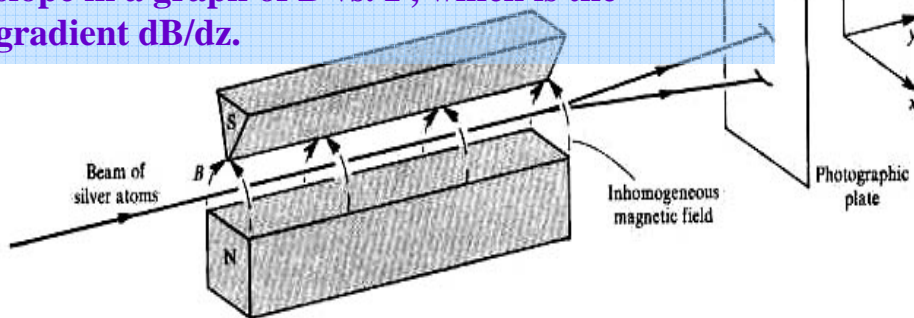
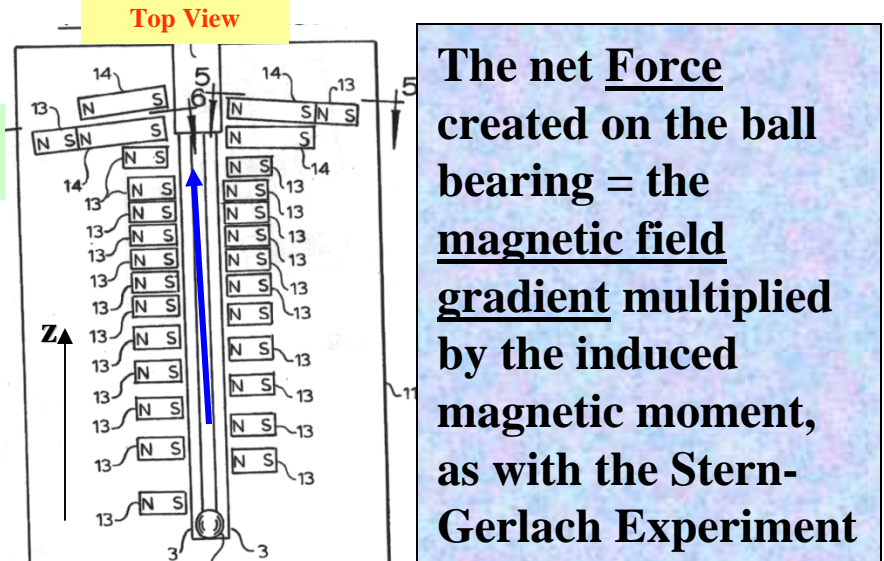


Fig. 21-1

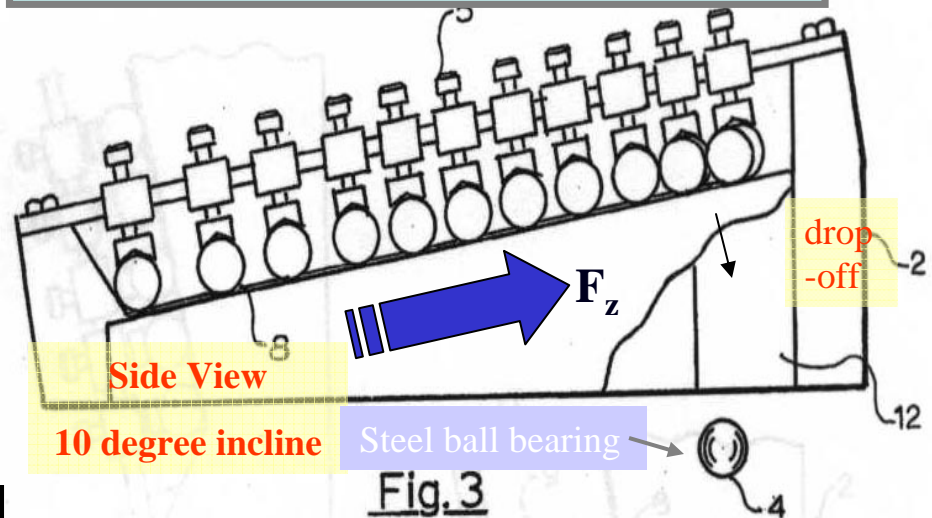
The purpose of the *inhomogeneous* magnetic field is to produce a deflecting force on any magnetic moments that are present in the beam. If a homogeneous magnetic field were used, each magnetic moment would experience only a torque and no deflecting force. In an inhomogeneous magnetic field, however, a net deflecting force will be exerted on each magnetic moment  $\mu_z$ . For the situation of Fig. 21-1,

$$F_z = \mu_z \cos \theta \frac{dB}{dz} \quad (21.1)$$

where  $\theta$  is the angle between  $\mu_z$  and  $B$ , and  $dB/dz$  is the gradient of the inhomogeneous field

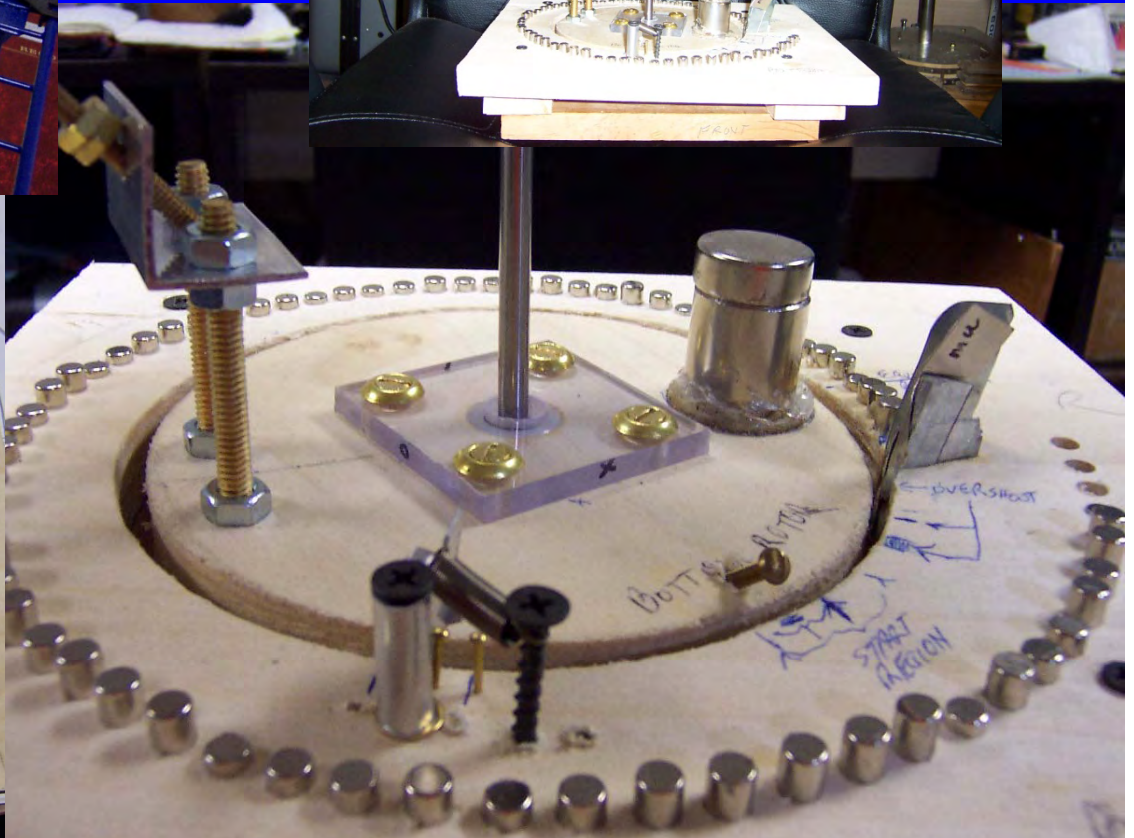
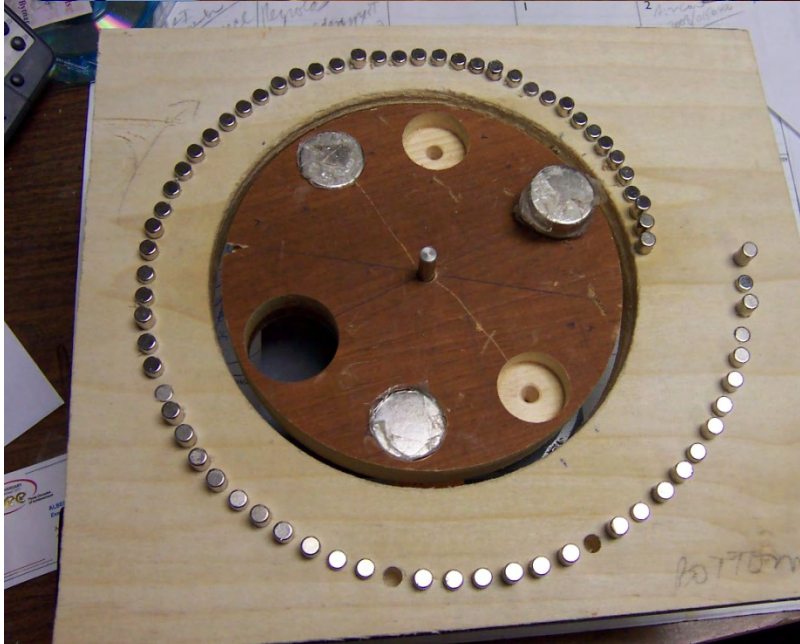
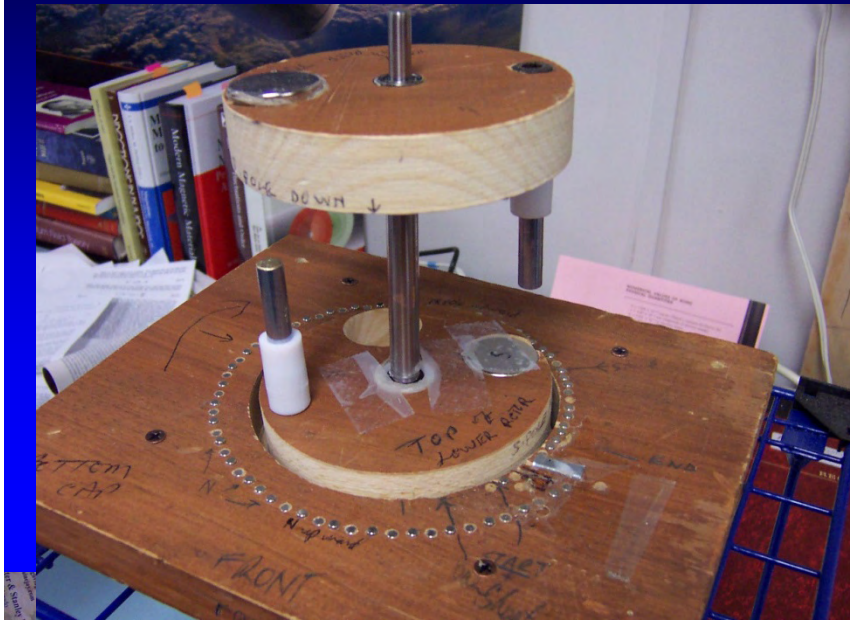


**Hartman Patent #4,215,330**





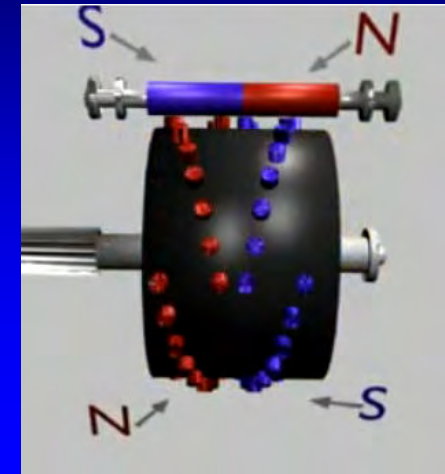
# Valone's Spiral Magnetic Motors



# V-Gate Spiral Magnetic Motor



Roobert33



<http://www.youtube.com/watch?v=bssBA6EzM4>



# Science Times

The New York Times

Jan 21, 1997

TUESDAY, JANUARY 21, 1997

## Physicists Confirm Power of Nothing, Measuring Force of Quantum 'Foam'

Fluctuations in the vacuum are  
the universal pulse of existence.

By MALCOLM W. BROWNE

**F**OR a half century, physicists have known that there is no such thing as absolute nothingness, and that the vacuum of empty space, devoid of even a single atom of matter, seethes with subtle activity. Now, with the help of a pair of metal plates and a fine wire, a scientist has directly measured the force exerted by fleeting fluctuations in the vacuum that pace the universal pulse of existence.

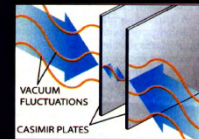
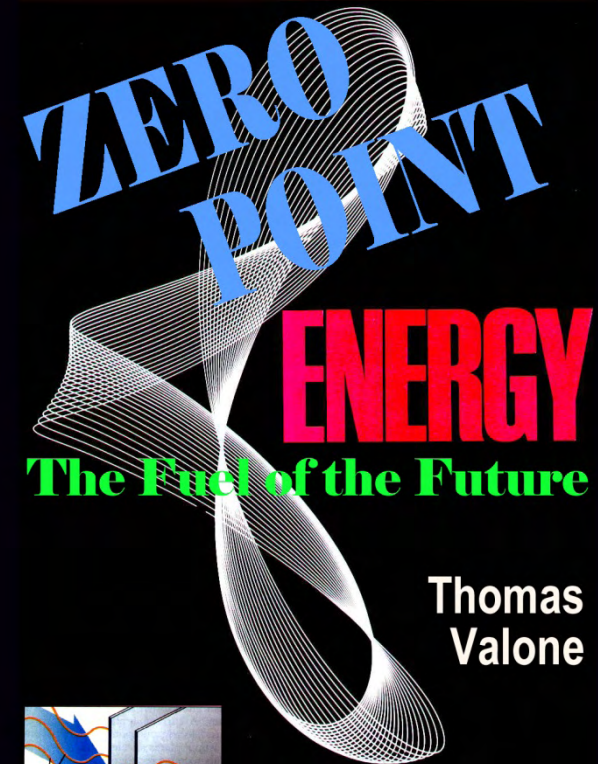
The sensitive experiment performed at the University of Washington in Seattle by Dr. Steve K. Lamoreaux, an atomic physicist who is now at Los Alamos National

Laboratory, was described in a recent issue of the journal *Physical Review Letters*. Dr. Lamoreaux's results almost perfectly matched theoretical predictions based on quantum electrodynamics, a theory that touches on many of the riddles of existence and on the origin and fate of the universe.

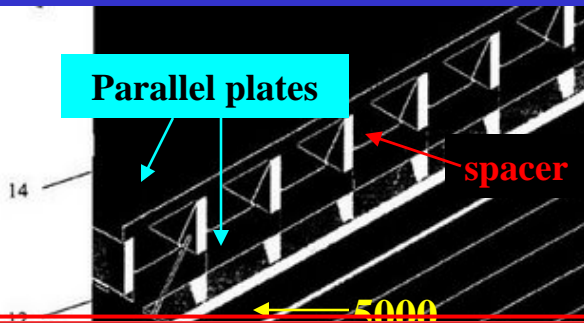
The theory has been wonderfully accurate in predicting the results of subatomic particle experiments, and has also been the basis of speculations verging on science fiction. One of the wilder ones is the possibility that the universal vacuum — the ubiquitous empty space of the universe — might actually be a false vacuum.

If that were so, something might cause the present-day universal vacuum to collapse to a different vacuum of a lower energy. The effect, propagating at the speed of light, would be the annihilation of all matter in the universe. There would be no warning for humankind; the earth and its inhabitants would simply cease to exist at

*Continued on Page C6*



# Quantum Energy Extraction



Haisch-Moddel patent 7,379,286

It is reasonable to expect that a 0.1 microns Casimir cavity would result in a release of 1 to 10 eV for each injection of a He, Ne, Ar, Kr or Xe atom into such a cavity.



## Test of zero-point energy emission from gases flowing through Casimir cavities

Space, Propulsion & Energy Sciences International Forum - 2012  
1 March 2012

Olga Dmitriyeva & Garret Moddel\*  
Department of Electrical, Computer, and Energy Engineering  
University of Colorado  
\*Presenter (also with Jovion Corporation)

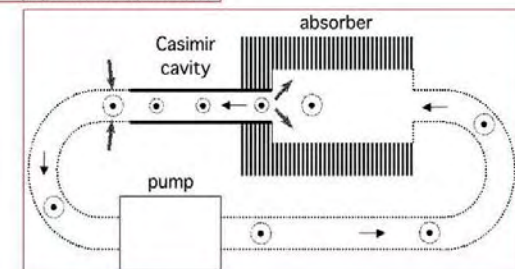
this orbit is  $6.6 \times 10^{15} \text{ s}^{-1}$ , no matter injected into a Casimir cavity the same as experienced by the orbiting assume that the decay to a new will involve gradual release of energy rather than a sudden optical radiation

### Pumping Gas Through Casimir Cavities

United States Patent  
Haisch et al.

Patent No.: US 7,379,286 B2  
Date of Patent: May 27, 2008

QUANTUM VACUUM ENERGY EXTRACTION  
Inventors: Bernard Haisch, Redwood City, CA (US); Garret Moddel, Boulder, CO

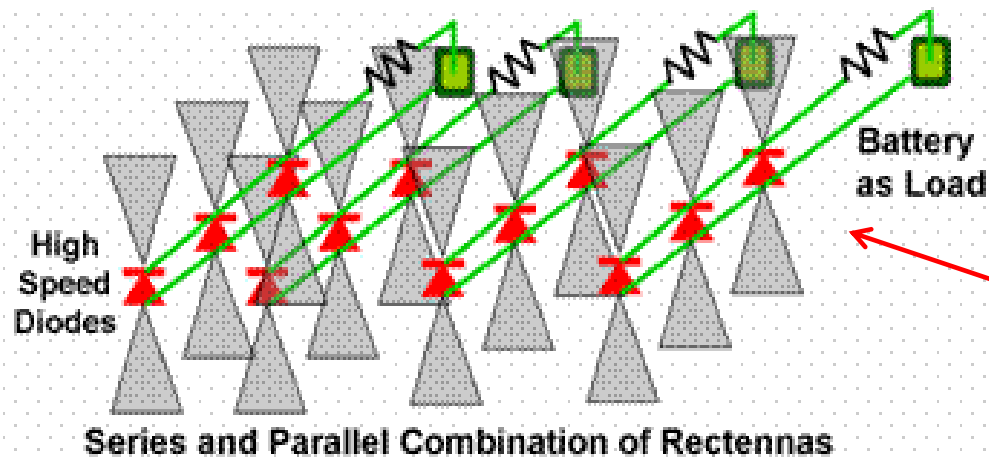


The background of the slide features a scenic view of cherry blossoms in the foreground, with a body of water and a clear blue sky in the background. The blossoms are in various stages of bloom, with some showing white petals and others showing a mix of white and pink. The water is a deep blue, and the sky is a clear, bright blue.

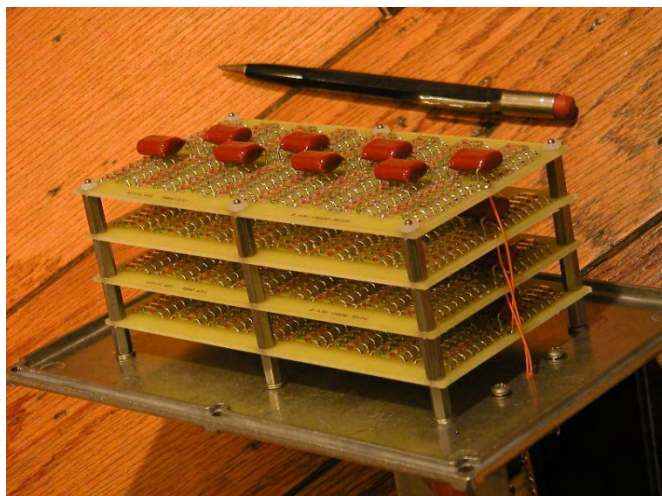
# Haisch-Moddel ZPE Conclusion

“We are in effect extracting energy locally and replenishing it globally. Imagine extracting thimbles-full of water from the ocean. Yes, the ocean is being depleted thereby, but no practical consequences ensue” -- **Haisch-Moddel patent #7,379,286**

# Rectifying Ambient Thermal and Nonthermal Electric Noise



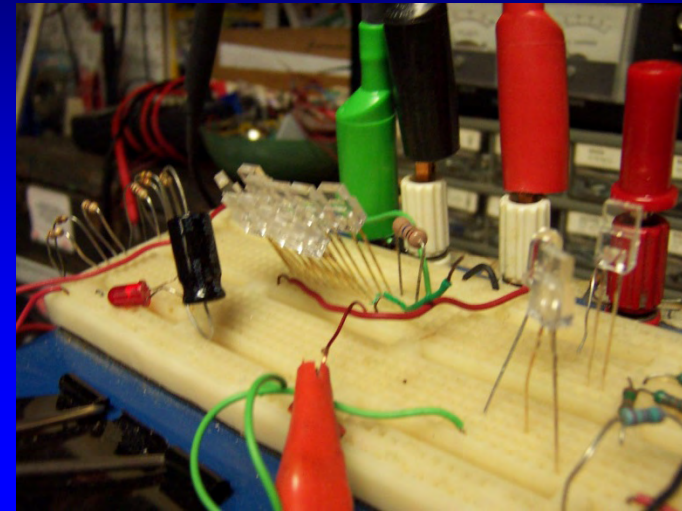
- Prof. Dagenais & Moddel amplifies ambient thermal energy harvested with nanorectennas
- Zero-bias diodes that need no minimum energy to conduct
- Backward tunnel diodes



- Example of a Diode Array

24-hour electrical energy source

# IRI Diode Energy Converter Research

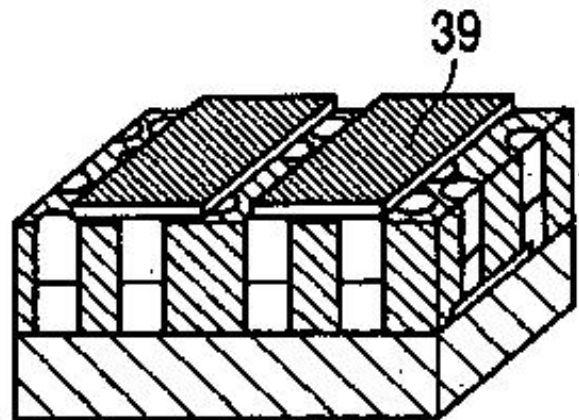
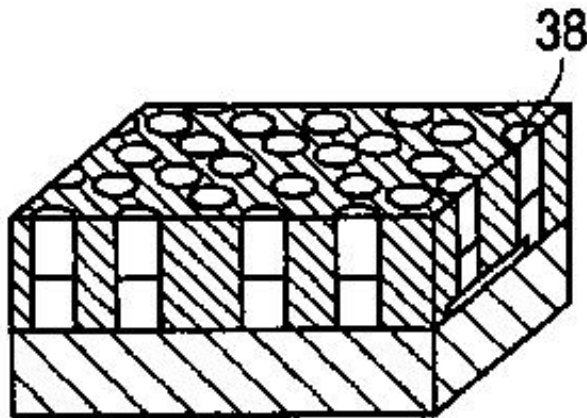


10 Megohm resistor in series with 10 diodes



Keithley 486 Picoammeter reads 2.27 nanoamps constant current with or w/o resistor in series

# Proposed Diode Energy Array Converter (DEAC) Design



1) Kuriyama, Patent #7,183,127 cites Brown patent "Diode Array" #3,890,161

Kuriyama: **1 nm diode pillars** with 3 nm spacing yields  $10^{12}$  diodes /  $\text{cm}^2$

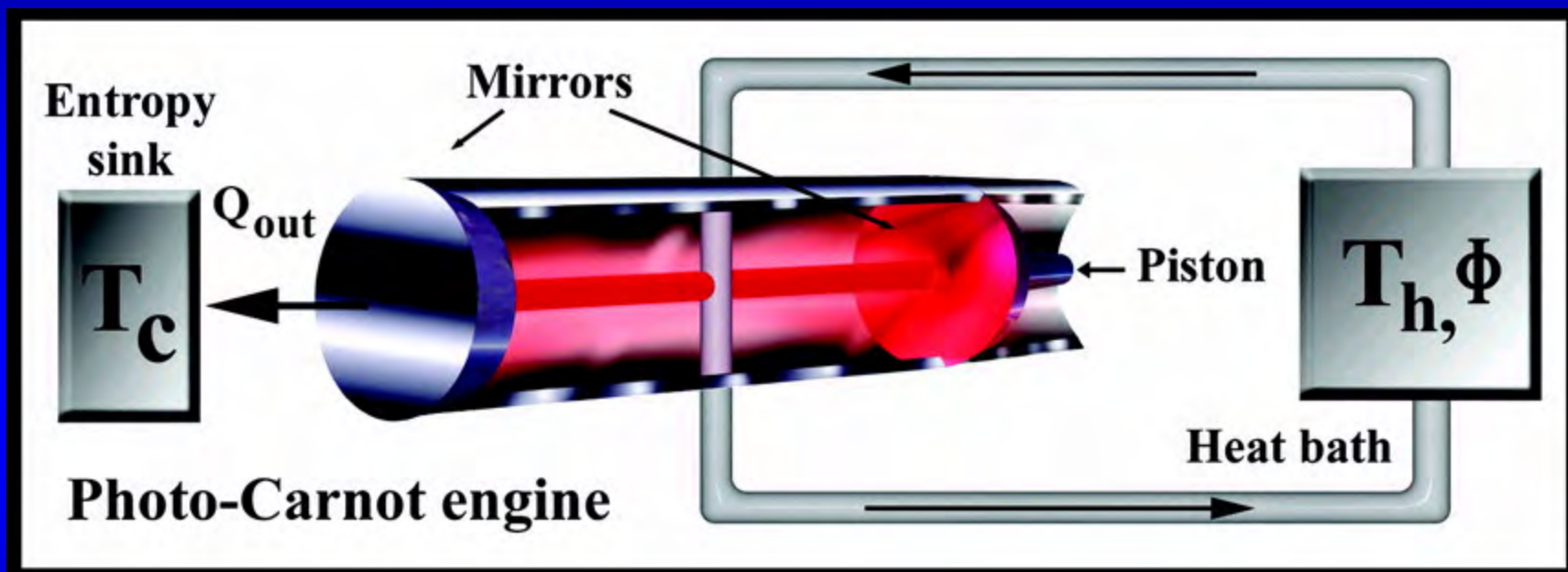
2) Compares favorably to **Hastas, 2003\*** with GaAs Schottky diodes grown by atomic layer molecular beam epitaxy (ALMBE) yielding  $10^{11}$  diodes /  $\text{cm}^2$

\*Hastas, *J App Phys*, 93, 7, 2003, p. 3990



# Work from a Single Heat Bath

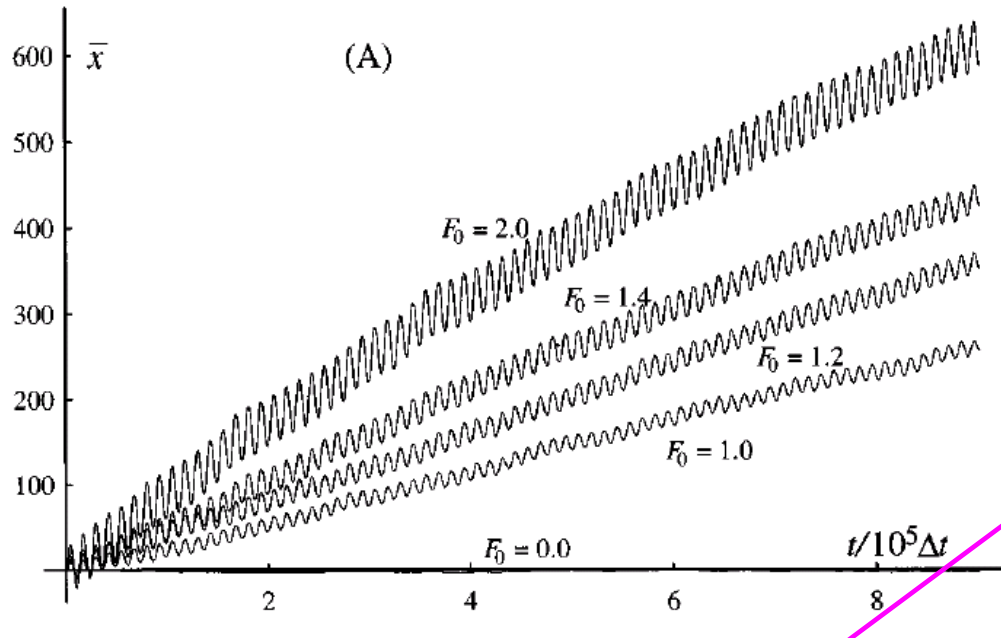
Quantum Coherence Expands the Second Law of Thermodynamics



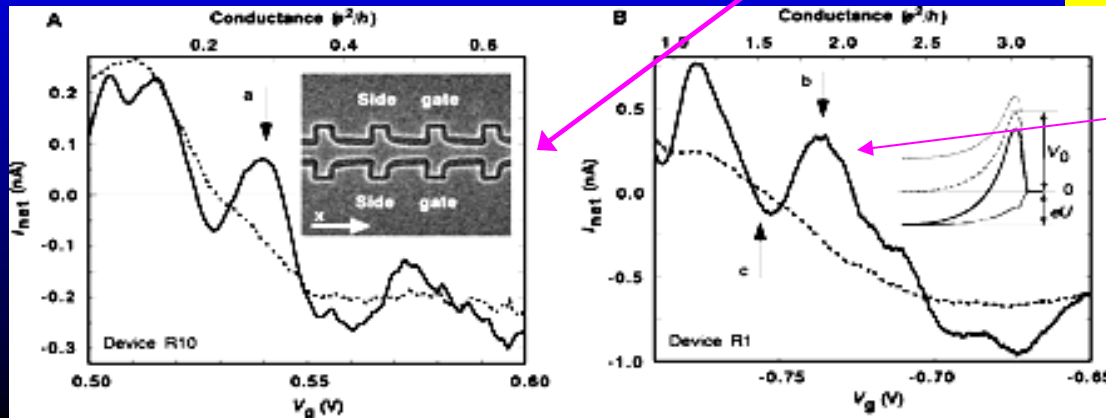
*“Working fluid” is radiation pressure from a microlaser which drives piston*  
Efficiency exceeds a classical engine even when  $T_c = T_h$

Ref.: Scully, *Science*, V. 299, Issue 5608, 2003, p. 862

# Fluctuation-Driven Electricity



- Fluctuation theorem\* predicts negative work
- Periodic boundaries
- Quantum ratchets
- Rectifies thermal noise
- Operate at  $T = 5$  K
- Input avg. force = 0



Temp. dependent current reversal

“Experimental Tunneling Ratchets”  
Linke, *Science*, 286, 1999

\*Crooks, *Phys. Rev. E*, 60, 1999

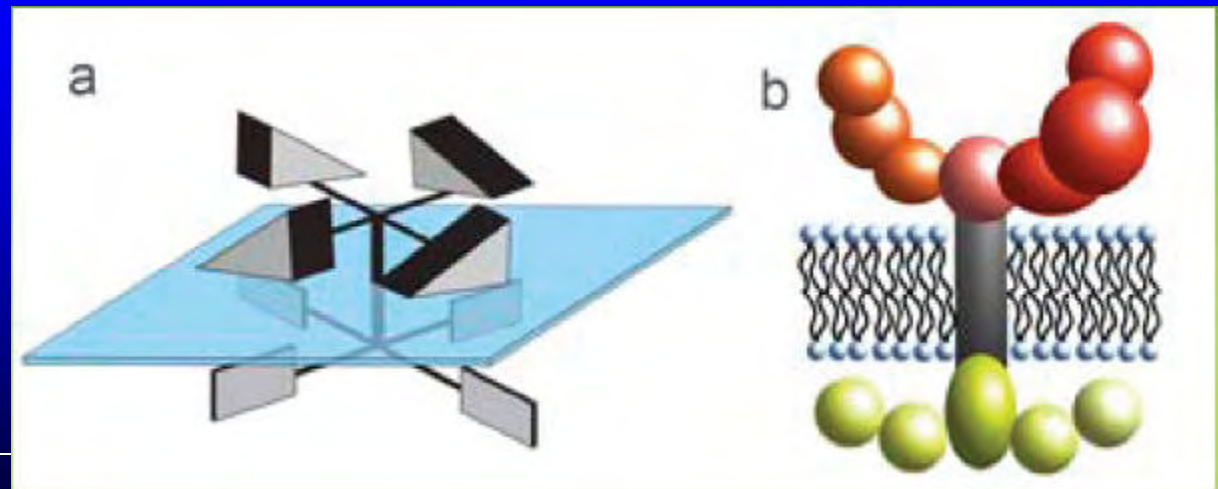
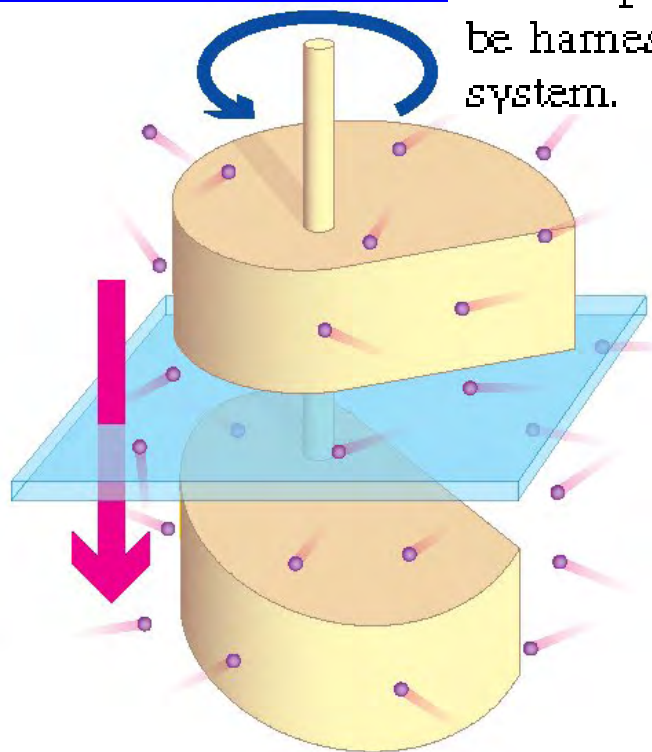
## Brownian Refrigerator

C. Van den Broeck

*Hasselt University, B-3590 Diepenbeek, Belgium*

R. Kawai

ternative, and arguably more promising approach, would be to utilize thermal fluctuations rather than fighting them. A well-documented example is the Brownian motor [1,2], which generates power through the rectification of thermal fluctuations. In this Letter, we present a novel method of microscopic cooling based on a Brownian motor in which, almost paradoxically, thermal fluctuations themselves can be harnessed to reduce the thermal jitter in one part of the system.



**Repulsive Casimir Forces** O. Kenneth, I. Klich, A. Mann, and M. Revzen Phys. Rev. Lett. **89**, 033001 (2002)

“We discuss repulsive Casimir forces between dielectric materials with nontrivial magnetic susceptibility... Indeed repulsive Casimir forces may be found in a large range of parameters, and we suggest that the effect may be realized in known materials. The phenomenon of repulsive Casimir forces may be of importance both for experimental study and for nanomachinery applications... for large permittivity and permeability, the transition between attractive and repulsive behavior depends only on the impedance  $Z = (\mu / \varepsilon)^{1/2}$

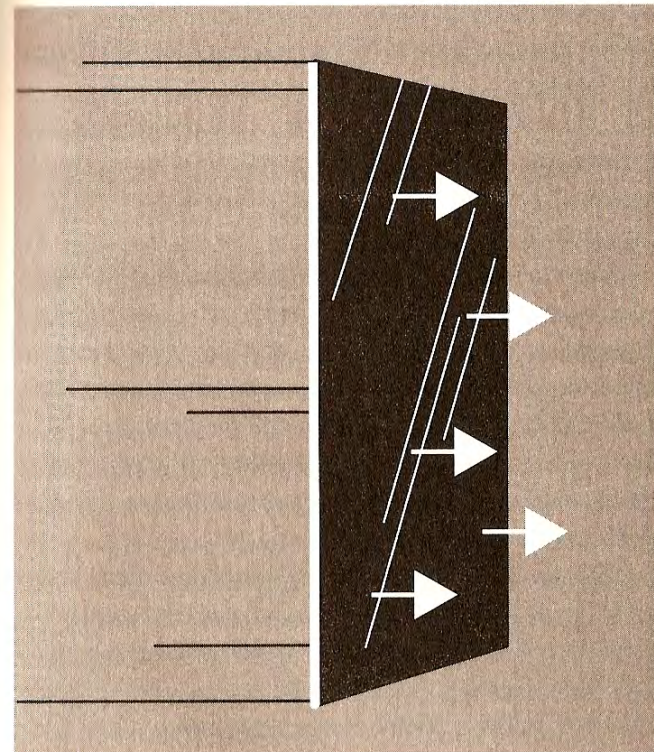
In addition we show that at high temperatures there is always attraction, and thus in some cases, the force changes sign as the temperature is increased.”

This article demonstrates that a push-pull oscillating engine is possible--only a variable ambient temperature input required.

sources of energy pervading the system, since the purpose of the experiments is to test Casimir's prediction, not actually to create a region of negative energy. The experiments confirm the theory. The force of attraction between two perfectly reflecting plates one meter square held a hundredth of a millimeter apart is equivalent to the weight of just a millionth of a gram. But the force grows larger as the plates get closer. With real metal sheets, which are never perfectly flat, the effect is complicated by other factors long before the Casimir force becomes large. However, this hasn't stopped some imaginative theorists from toying with ideas of using the Casimir effect, and other quantum vacuum effects, as the basis of a spacecraft propulsion system.

#### OTHER WAYS OF MAKING NEGATIVE ENERGY

The Casimir effect is the most famous, and easiest, method of producing negative energy by disturbing the quantum vacuum. But there are other ways too. Negative quantum vacuum energy can be created by a single reflecting surface (that is, a mirror) if it is moved vigorously. In the mid-1970s I studied this "moving mirror" effect in great detail with my collaborator Stephen Fulling. We restricted our work to a simple one-dimensional model, but similar results are likely to apply in real three-dimensional space too. We found that if a mirror moves with increasing acceleration, a flux of negative energy emanates from its surface and flows out into the space ahead of the mir-



Negative quantum vacuum energy can be created by a single reflecting surface.



## Observation of the Dynamical Casimir Effect in a Superconducting Circuit

C.M. Wilson, G. Johansson, A. Pourkabirian, J.R. Johansson, T. Duty, F. Nori, P. Delsing

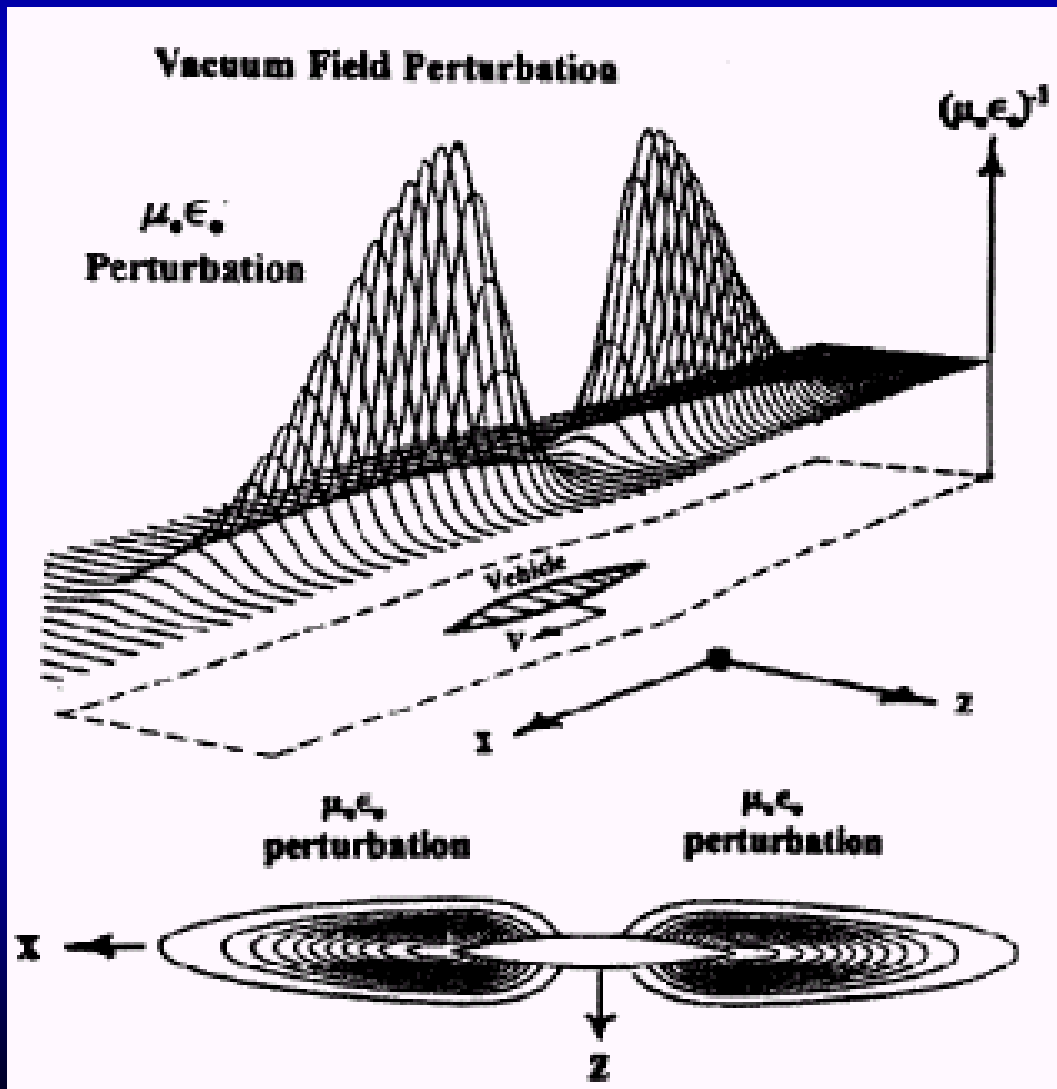
(Submitted on 24 May 2011)

One of the most surprising predictions of modern quantum theory is that the vacuum of space is not empty. In fact, quantum theory predicts that it teems with virtual particles flitting in and out of existence. While initially a curiosity, it was quickly realized that these vacuum fluctuations had measurable consequences, for instance producing the Lamb shift of atomic spectra and modifying the magnetic moment for the electron. This type of renormalization due to vacuum fluctuations is now central to our understanding of nature. However, these effects provide indirect evidence for the existence of vacuum fluctuations. From early on, it was discussed if it might instead be possible to more directly observe the virtual particles that compose the quantum vacuum. 40 years ago, Moore suggested that a mirror undergoing relativistic motion could convert virtual photons into directly observable real photons. This effect was later named the dynamical Casimir effect (DCE). Using a superconducting circuit, we have observed the DCE for the first time. The circuit consists of a coplanar transmission line with an electrical length that can be changed at a few percent of the speed of light. The length is changed by modulating the inductance of a superconducting quantum interference device (SQUID) at high frequencies (~11 GHz). In addition to observing the creation of real photons, we observe two-mode squeezing of the emitted radiation, which is a signature of the quantum character of the generation process.

“Moving  
Mirrors  
Generate  
Photons  
from the  
Vacuum”

Nature,  
6/3/11  
online

# Superluminal Saucer

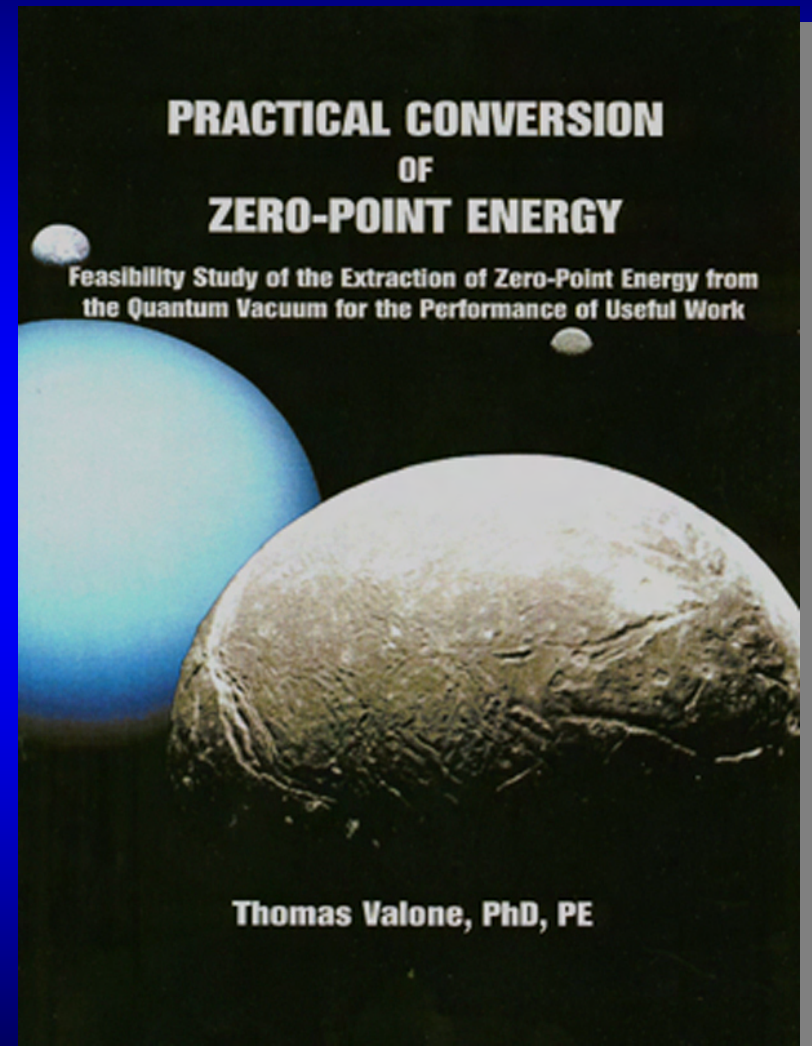


- Fronig solved Euler eq of fluid dynamics with vacuum perturbed by toroidal EM field
- **ZPF loses its drag when  $T \rightarrow 0$  K**
- Only directional accelerating recoil left
- **Transfers energy from ZPF to vehicle**

# For further technical information

Table 3 - Vacuum Engineer's Toolkit

Tool	Effect	Page
Aperiodic quantum stochastic resonance (AQSR)	Generates electrical current from <del>nonthermal</del> and thermal fluctuations	65-67
Brownian motors	Bias Brownian motion of particles, often in an anisotropic medium	58
Casimir engine	Electrical current generator designed by Pinto using a <del>microcantilever</del> , <del>microlaser</del> , and Casimir force	44-47
Casimir force	Attractive (or repulsive) force from two parallel plates about 1 micron apart	6, 18, 50
Cavity QED	Alters atomic transition probability in small cavities	20
Dark energy	ZPE that powers galactic acceleration, also measured in the lab	67
Dielectric constant of surface	Affects Casimir force when illuminated by light	45, 52, 53
Einstein-drag drag	Retarding force from vacuum due to motion $F = -\hbar\gamma$	56
Electromagnetic ZPE Converter	Dual sphere device using beat frequencies to downshift ZPE	27-44
<del>Electromagnetic</del>	Particle size where QM and Rutherford scattering applies	40-44
Fluctuation-Dissipation theorem	<del>Source+dissipation=fluctuation</del> , Predicts and explains fundamental nature of ZPE	11, 57
Fluctuation-driven transport	mechanism that can convert chemical energy into motion of particles and macromolecules	58
Focusing vacuum fluctuations	Increases energy density of ZPE and attractive Casimir force	48-49
Fokker-Planck equation	Can apply to <del>ferrofluid</del> system to predict noise-driven motion of particles	64
Langevin's equation	Like F-D theorem, helps design Brownian motors	58, 63
Lasing without Inversion (LWI)	Sustained laser output from <del>gaseous</del> which have long radiation cavity lifetime	56
Magnetic field	Inhibits Casimir force	20
Microchip geometry	Varies Casimir force from + attractive to - repulsive	50-51
Microcantilever	Flexible membrane that displays Casimir deflection	44, 49
<del>Microcavity</del>	Solid state laser 2 microns across	46
Nonresonant ion trap	<del>Electric</del> cavity that concentrates charged particles	44
Photo-Carroll engine	Allows extraction of work from a single thermal reservoir where radiation is the working fluid	56
Quantum coherence	Changes relative strengths of emission and absorption in a cavity	57
Quantum ratchet	Repeating cells that move particles with fluctuation-driven transport	59-60
Recall	increases the energy of a dipole, associated with photon absorption and emission, both of which are in the same direction	55
Rectifying thermal noise	Generates electrical current with asymmetric external potential	64
Resonance	Can trap scattering particles into bound state	42
Resonant fluorescence	Dramatically increases absorption when incident energy equals binding energy of target	41
<del>Sonoluminescence</del>	ZPE caused light emission due to extreme temperature and pressure	21
Spatial squeezing of vacuum	Can double photon emission from cavity by changing dimensions abruptly	48
Temperature	Increase will broaden resonance peak	39
Thermal fluctuations/noise	temperature-caused stochastic oscillations and vibrations	62-63
Time-dependent refractive index	Causes part of ZPE to convert to real photons	53
Transient fluctuation theorem	Nonzero probability for negative work for short periods of time	61
Unruh-Davies Effect	Acceleration causes ZPE to create thermal fluctuations	53
<del>Upconversion</del>	Gain of energy to incident particle up to 10 <del>times</del> energy	39
Vacuum field amplification	Increases quantum <del>(quantum)</del> noise with a gain medium	67
Vacuum field perturbations	<del>Nonplanar</del> EM field may alter speed of light/object	55
Vacuum polarization	increase in local activity in the quantum vacuum near the edge of a physical charged particle	10



Toolkit on IRI website.



# *Electrostatic Motors*

Being reprinted in a new edition by IRI

- **Benjamin Franklin**, inventor
- First electric motor ever
- One operated for 86 years
- **Uses atmospheric electricity**
- **0.1 Hp** motors developed
- **10 kW to 1 MW** design range
- “Underutilized technology”
- Atmospheric potential of planet: **200 gigawatts**

Jefimenko, *Proc. of COFE*, 1999, p. 70

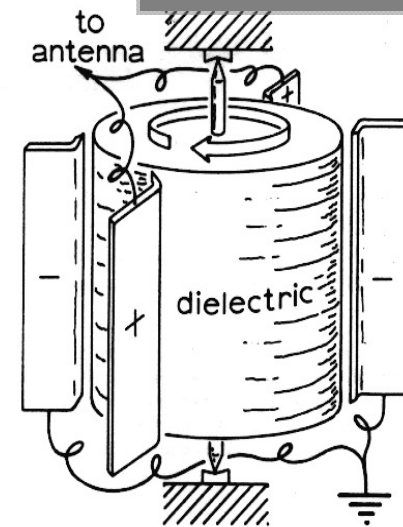
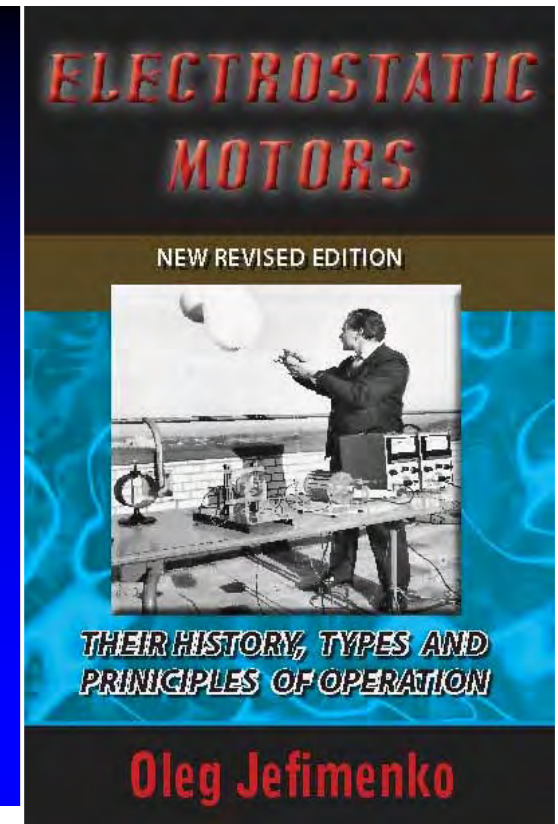


FIG. 3. Corona motor capable of operating from the atmospheric electric field.  
Jefimenko, *Am. J. Phys.*, V. 39, No. 7, 1971, p. 776



# THE AMATEUR SCIENTIST

*Electrostatic motors are powered by the electric field of the earth*

conventional energy resources? Several limitations must first be overcome. For example, a single sharp point can draw electric current from the surrounding air

turns in the horizontal plane on low-friction bearings. Each spoke of the "electric wheel," as Franklin called the machine, consists of a glass rod with a brass thimble at its tip. An electrostatic

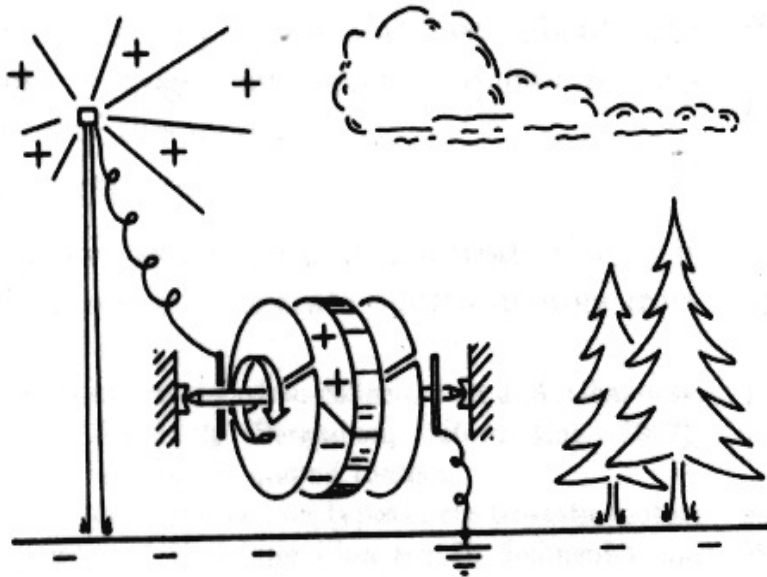
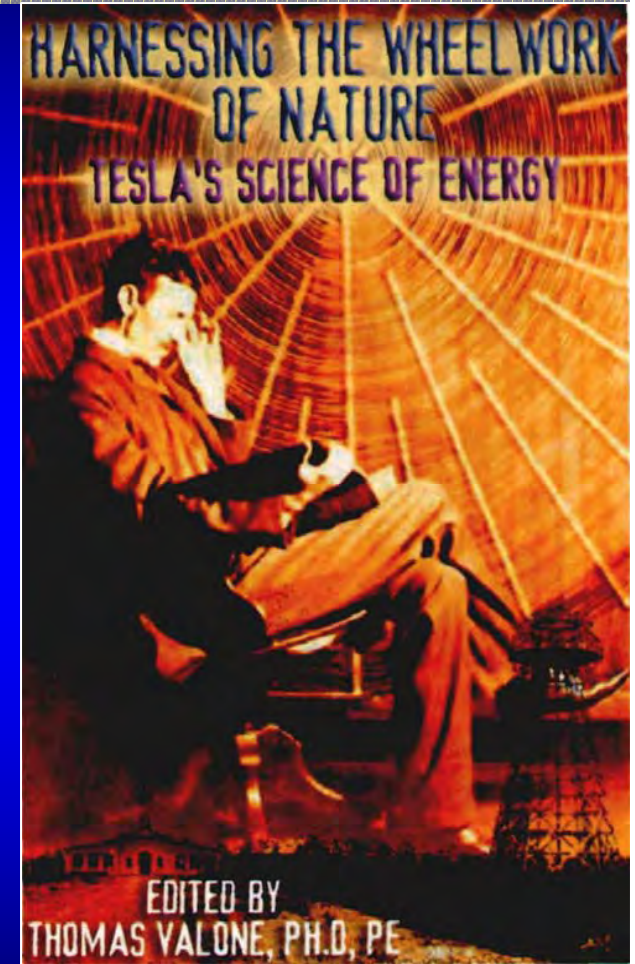


FIG. 2. Operation of the electret motor from the atmospheric electric field by means of an antenna with a radio-active collector.

- **24 foot antennas or higher**
- **tiny amount of polonium on tip of antenna boosts current**
- **electrets improve output**
- **corona motor is easy to build and "they can run forever"**

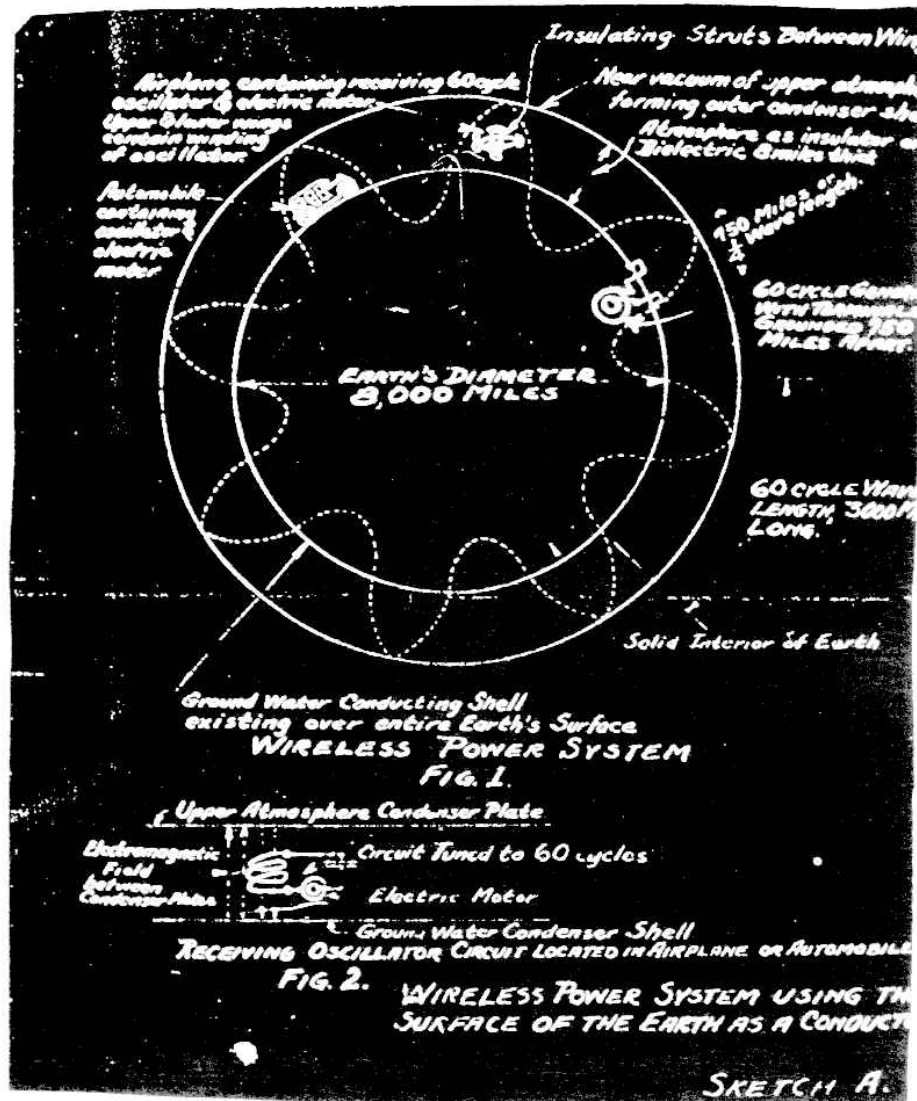
# Tesla's Design for Wireless Energy

- 1905 Earth is resonant LRC circuit
- Magnifying transmitter 200 ft tall
- Wardenclyffe sphere 68 foot diameter
- Resonates with earth-ionosphere natural 8 Hz frequency for 95% efficiency of transmission
- Longitudinal and transverse EM waves
- see *Harnessing the Wheelwork of Nature*



IRI - only one to celebrate **Wardenclyffe Tower** Centennial with a **Tesla Conference and Expo** as well as book release both in 2003

# Tesla's Magnifying Transmitter

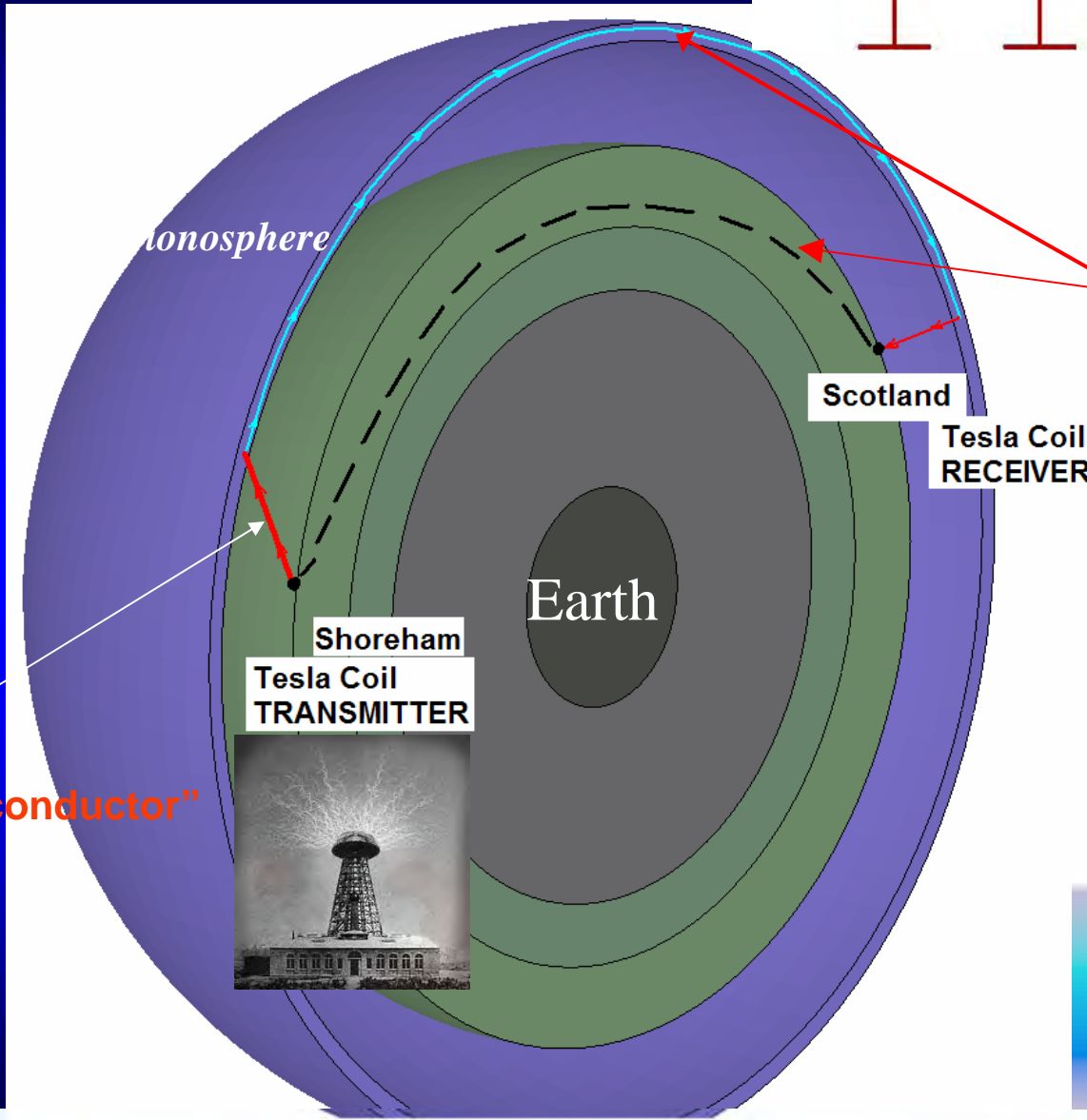
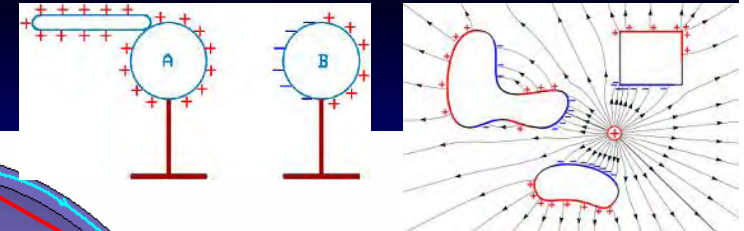


- Standing wave sketch
- Lossless transmission line
- 95% efficiency that is opposite to transmission circuit
- Earth's magnetic flux can be "strummed" or resonantly vibrated
- Increase at nodes-antinodes
- Air offers conductive path
- Pulsed ionizations of the air

# Electrostatic Induction (capacitive coupling)

High-field Gradient or differential capacitance

Also known as the "Tesla Effect" can be described as electrical displacement or the passage of electrical energy through space other than the application of voltage potential



**Ionized plasma "conductor"**

**Giant capacitor**

Slide from  
Nick Simos,  
PhD, PE

# “The car of the future will run on metal.”

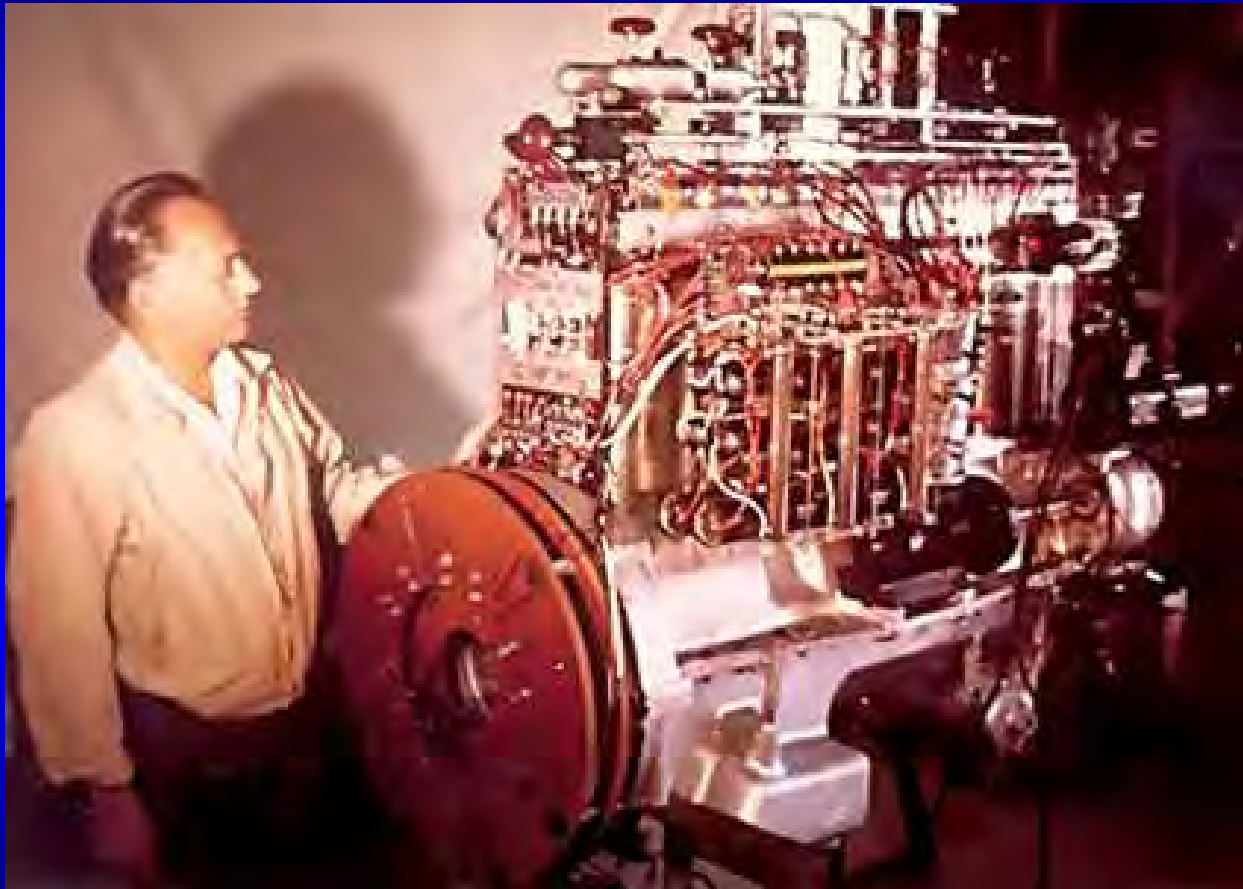
- Dave Beach & Solomon Labinov researchers at Oak Ridge National Laboratory in Tennessee

*New Scientist*, Issue 2522, 22 October 2005

- metal powder such as **iron, aluminum or boron**
- already used in rocket-powered torpedoes
- **nanosized particles** (50 nm) temperature peaks at around 800 °C - **hot enough to do useful work** – not too hot to stick to surfaces
- volume is half size of 50 litre tank for same range

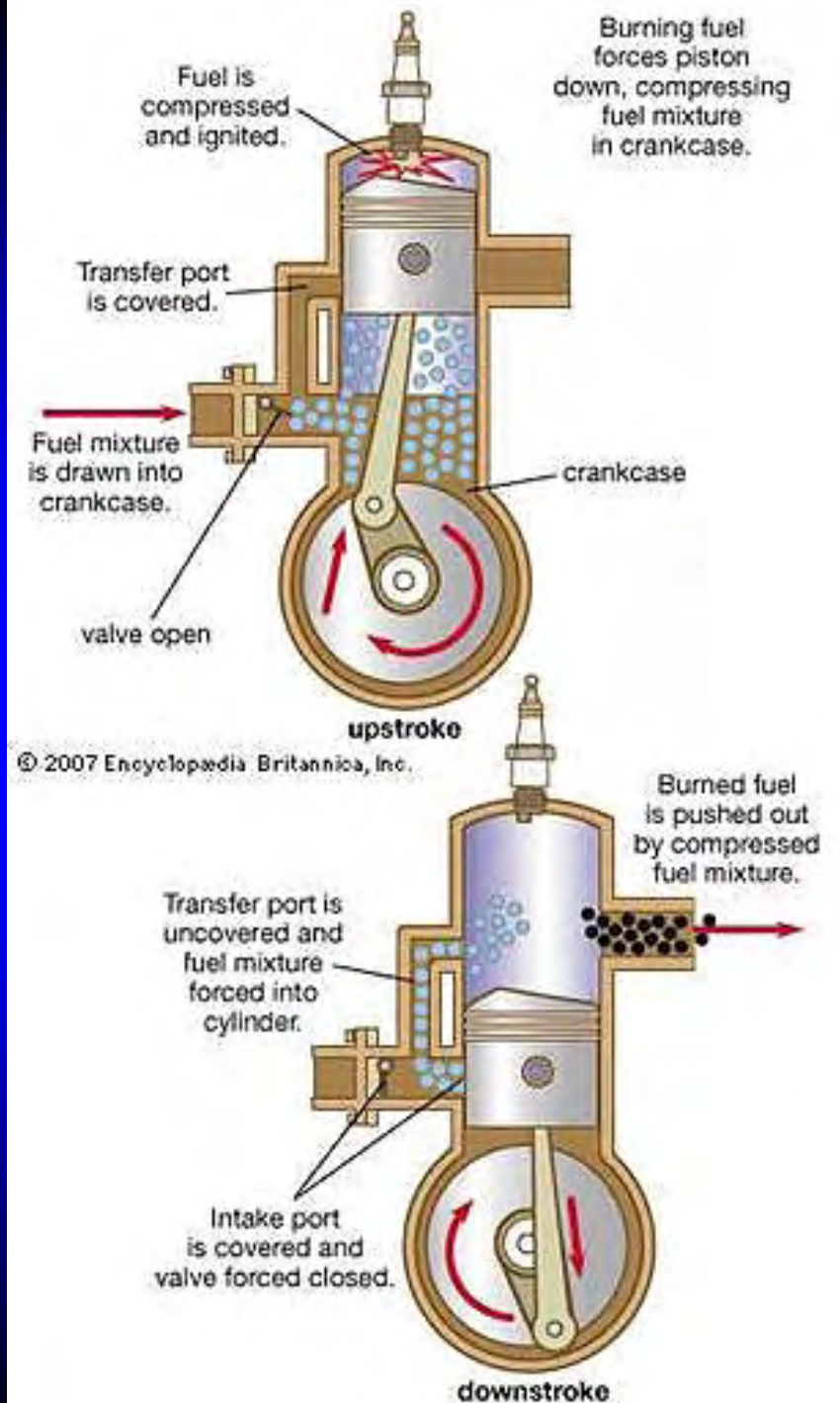
# Josef Papp

## Pulsed Plasma Discharge Engine



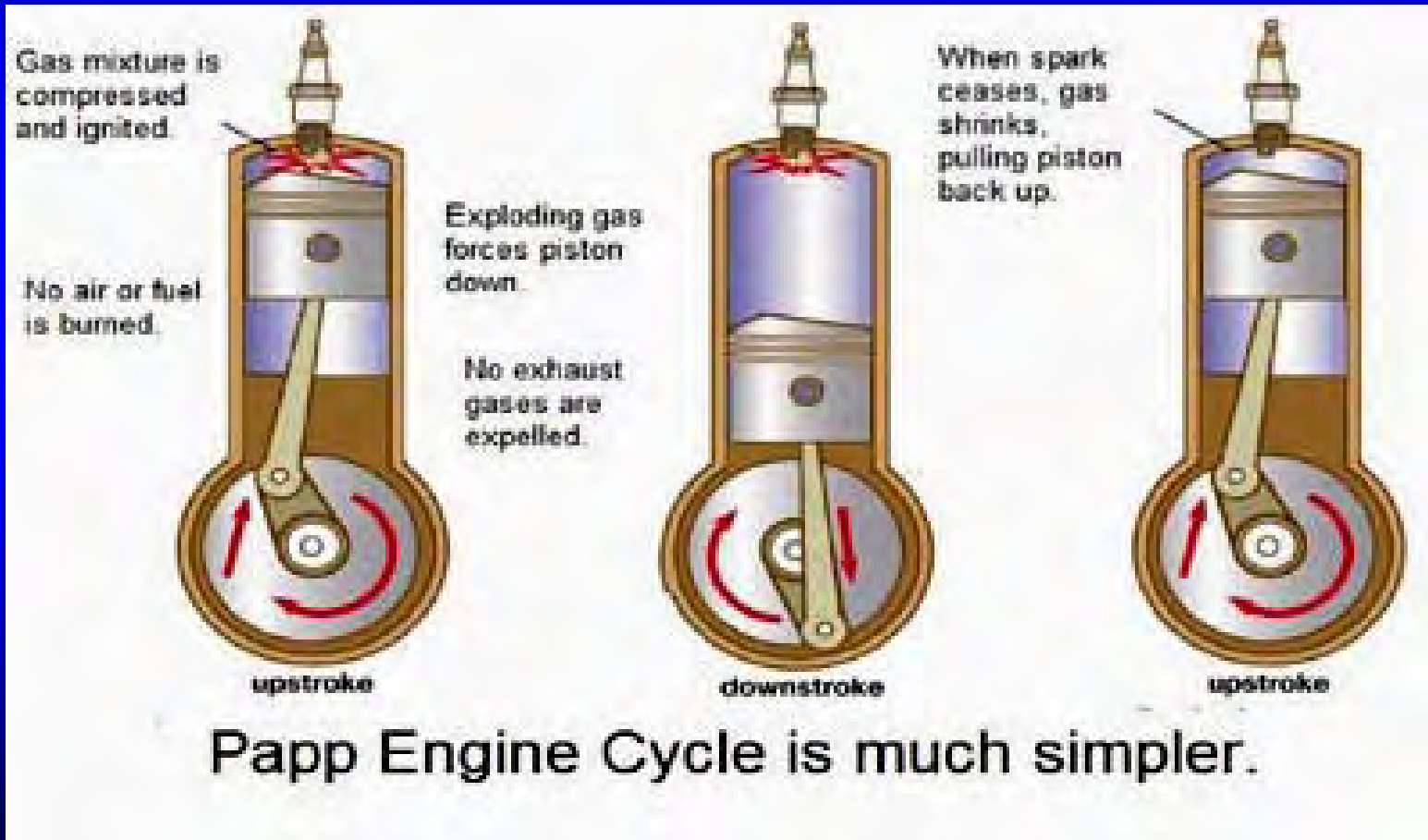
Hungarian immigrant worked on “Fastest Submarine” in 1960s for Canadian government. Built this 100 hp engine fueled with noble gases.

# Compare Papp to a Typical Two-Stroke Engine





# Typical Two-Stroke Internal Combustion Engine



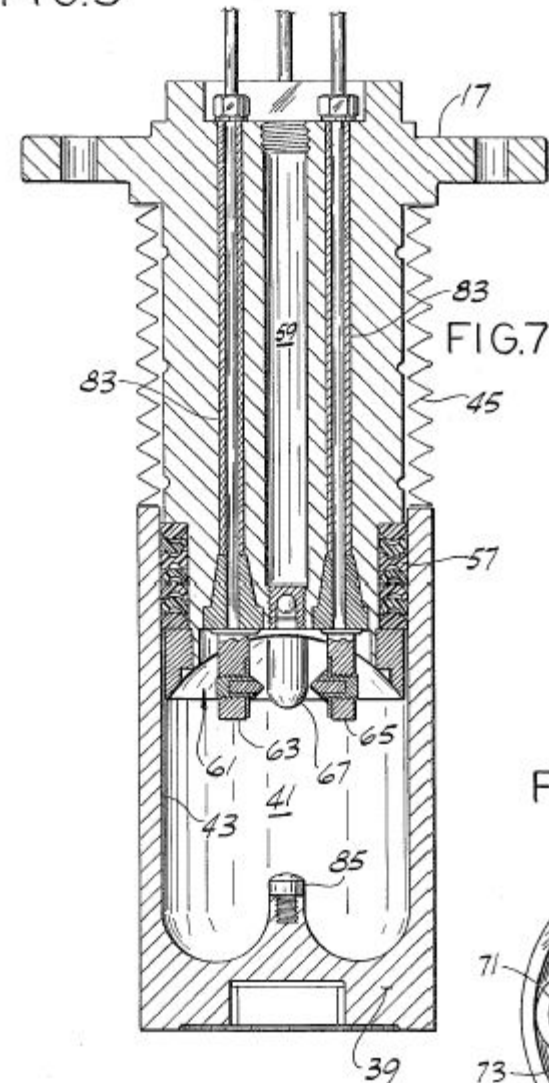
# Papp Engine Patent 4,428,193

Patented in 1984, Papp specifies a Teflon coated cylinder seals and two electrodes (63, 65) for ignition and two electrodes (67, 69) for cathode and anode in a quadrant star within each of two cylinders.

An interesting point is the addition of four grams of thorium-232 (alpha emitter) to the cathode container, while the anode container has two grams of rubidium-37 and three grams of phosphorus-15 in mineral oil for ionizing or exciting the gases.

Papp 3,680,431 explains his desire for electron or alpha emitters to trigger the reactions with “argon, krypton, neon, xenon and their isotopes.”

FIG.5



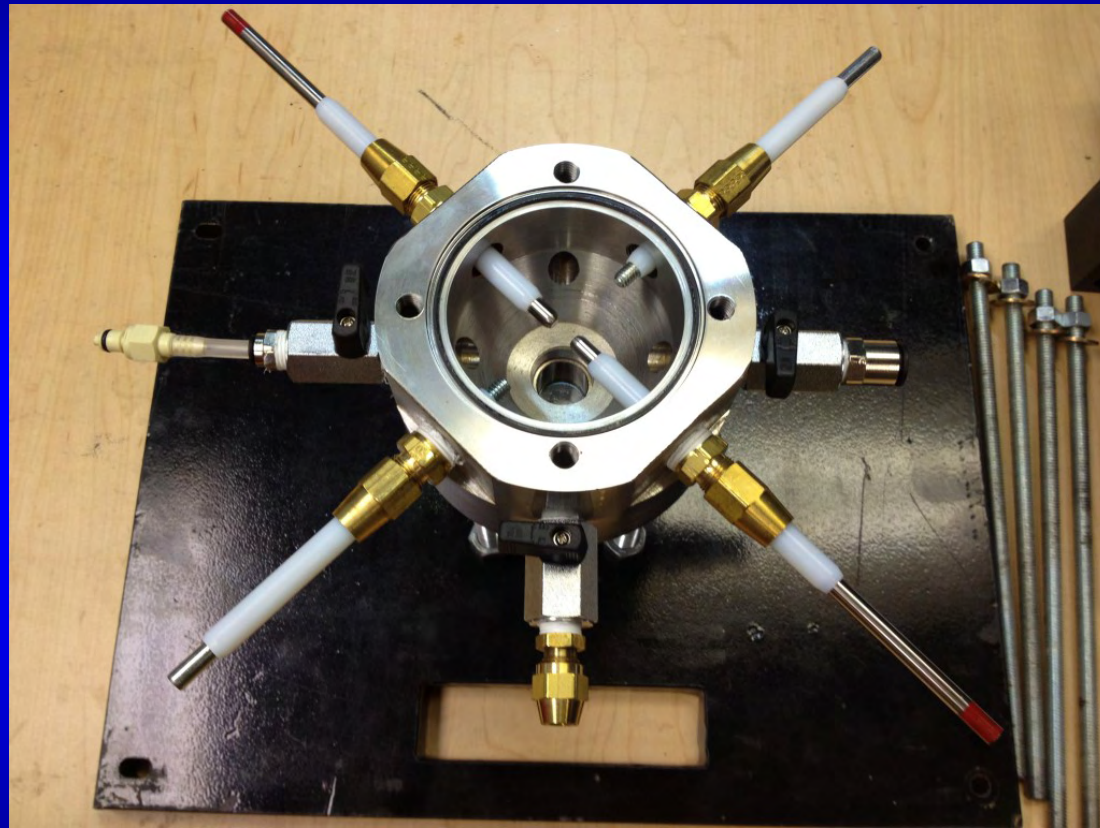
# Papp Cylinder Built in 2012

Designed by Russ  
Gries to use a mix of  
five noble gases with  
a 40 kV spark

Credit to Bob Rohner for  
Advice and Online Videos



# Heart of Papp Engine



Four terminal spark gap by RWG with a “three-discharge sequence” using two  $\frac{1}{4}$ ” titanium rods and two  $\frac{1}{4}$ ” tungsten thoriated electrodes

# Papp Circuit Operation

- Two cylinders act as “capacitors” to store and exchange high current and high voltage to the mated cylinder “in a crisscross mode with a switching circuit”.
- It appears to be a **positive feedback circuit**, each cylinder feeding the other’s explosive process, thus causing an excess charge accumulation cascade which has caused two explosions of one of the cylinders, such as when **Dr. Richard Feynman** insisted on pulling the electrical plug on an operating Papp engine, killing his own assistant in 1968.
- Therefore, the circuit has to be moderated using a “**charge dissipation mediation circuit**” that conditions and moderates the capacitive pulse according to RWG.

# Papp Unique Components



“Buckets” supposed to hold radioactive elements but RF 27.1 MHz is a substitute for their ionizing effect. RWG only has 2% thoriated electrodes.



Specially designed  
3.25” OD piston

# Critical Mixture of Noble Gases

One fuel mixture known in the art is  
a combination by volume of

**35.6% helium,  
26.2% neon,  
16.9% argon,  
12.7% krypton,  
8.5% xenon**

Disclosed online by RWG

<u>Component</u>	<u>Nominal</u>	<u>Actual</u>	<u>Accuracy</u>	<u>Method</u>
Xenon	8.50%	8.50%	+/- 2% rel	Gravimetric
Neon	26.3%	26.3%	+/- 2% rel	Gravimetric
Krypton	12.5%	12.5%	+/- 2% rel	Gravimetric
Argon	16.9%	16.9%	+/- 2% rel	Gravimetric
Helium	Balance	Balance		

# Video of RWG Ignition Circuit



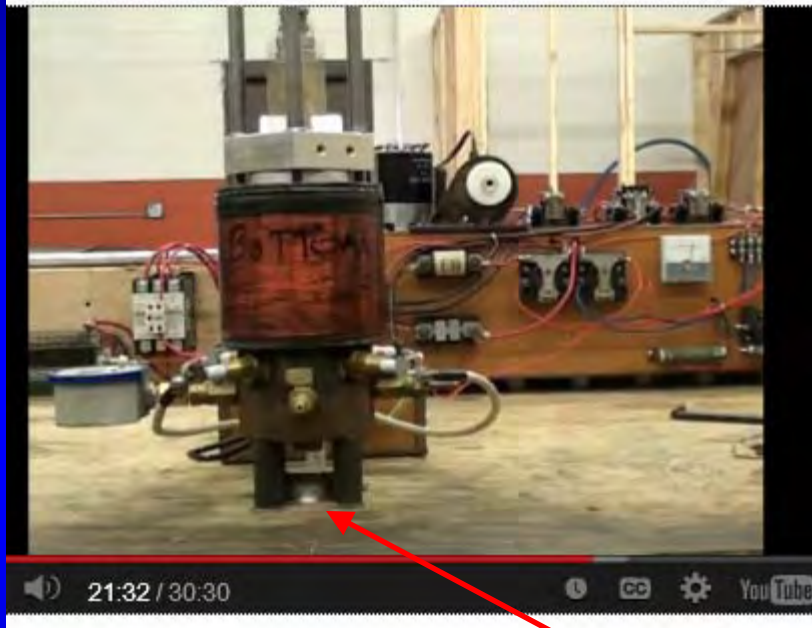
<http://preview.tinyurl.com/RWGREsearch>

Four minute video shows a superior ignition performance



# Rohner-Roberts Video

(Bob Rohner worked for Josef Papp)



Flash can be seen at bottom



Original Papp engine above

[http://www.youtube.com/watch?feature=player\\_embedded&v=\\_zWJNyoFqJM](http://www.youtube.com/watch?feature=player_embedded&v=_zWJNyoFqJM)

Or use → <http://preview.tinyurl.com/Rohner-Roberts>

# Poseidon

## God of the Ocean

- ◆ Ruler of the Ocean
- ◆ Watery, massive, feminine in nature
- ◆ Energy Examples:  
Hydroelectrics , Cold Fusion, Tidal Power

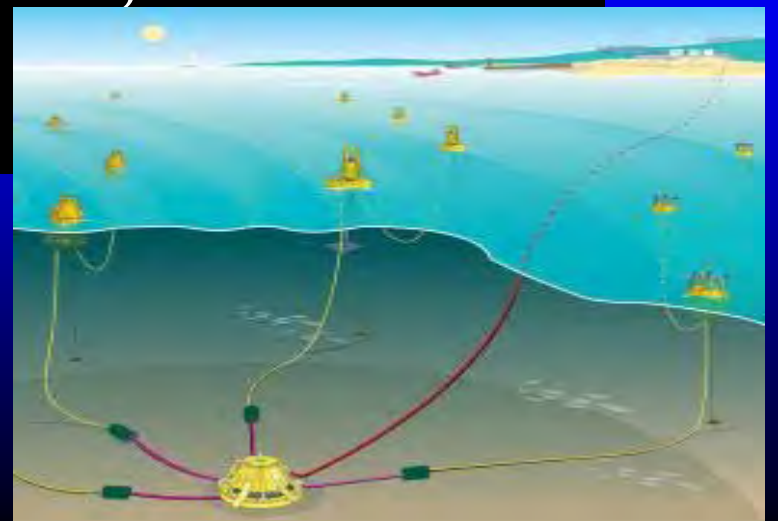




# World's Largest Tidal Wave Generator

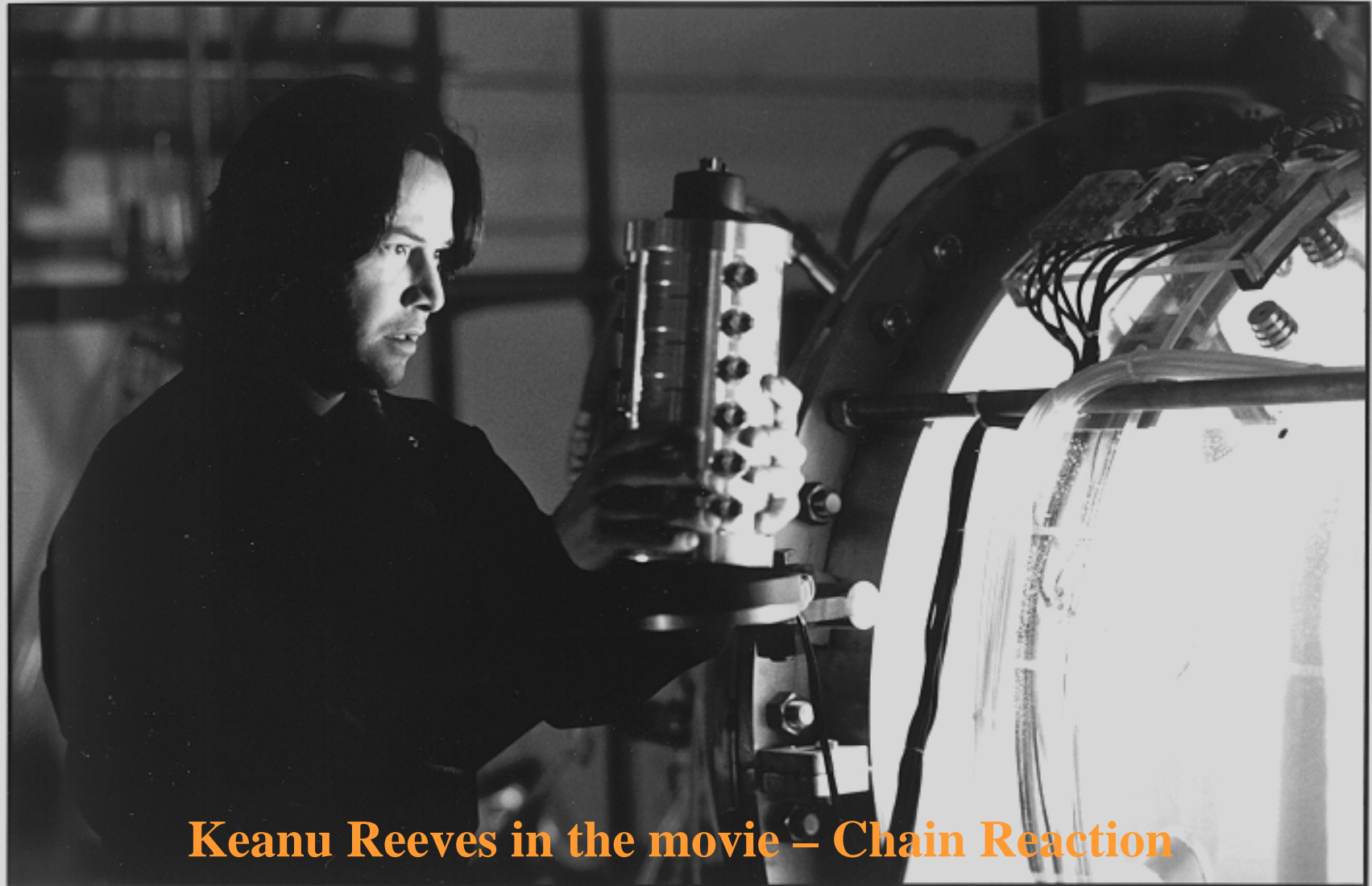
- (PhysOrg.com) – A new wave energy generation test site is the first offshore wave energy site in the UK, and will allow four wave energy generator systems, with a total capacity of 20 MW.

**Ocean Power Technologies Limited** (OPT), which will connect its **PowerBuoy** wave energy converter to one of the tail berths early next year.



# COLD FUSION – ENERGY FROM WATER

May be nearing the commercialization phase finally



**Keanu Reeves in the movie – Chain Reaction**

# Apollo

## The Sun God

- ◆ Cruises the Heavens in his chariot to bring light to Earth.
- ◆ He is Fiery, masculine and self-propelled.
- ◆ Energy Examples: Solar, Photovoltaics, Nuclear



# *Power Africa Project*

A satellite image of the Earth at night, showing city lights and urban areas. The continent of Africa is the central focus, appearing as a dark, unlit area. A red arrow points from the text 'Continent of Energy Poverty' to the continent of Africa.

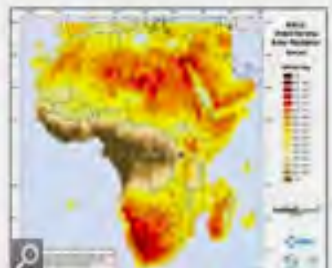
Night Lights Visible from  
Space Show a **Continent**  
of **Energy Poverty** on Earth

# IRI Africa Homes Light Project

Where's the sun gone in Obama's US\$7 bi Power Africa project?



Is Obama's US\$7 billion plan for powering missing a trick by overlooking solar. Image: Nathalie Bertrams.



President Barack Obama's US\$7 billion initiative to bring power to the African people was launched in celebratory mood at the end of last month.

Power Africa aims to add more than 10,000MW of cleaner, more efficient electricity generation capacity over five years. At least 20 million more households and commercial entities will be electrified from the grid, distributed generation or mini-grids. Ethiopia, Ghana, Kenya, Liberia, Nigeria and Tanzania are the first to participate in the initiative, which has already levered US\$9 billion from private industry.

The roll call of companies already recruited to the cause is impressive. General Electric has committed to help bring online 5MW of "new,

- Supply **LED – Solar-NiCd modules** for lighting homes
- Recruit African distribution organization
- Aim for **10,000 homes per month**
- Use **donated money** to accomplish project
- Goal: Jumpstart evening and **nighttime studying and reading**



Solar Module: Thin Flexible Solar Cell 3 Volt 100 mA



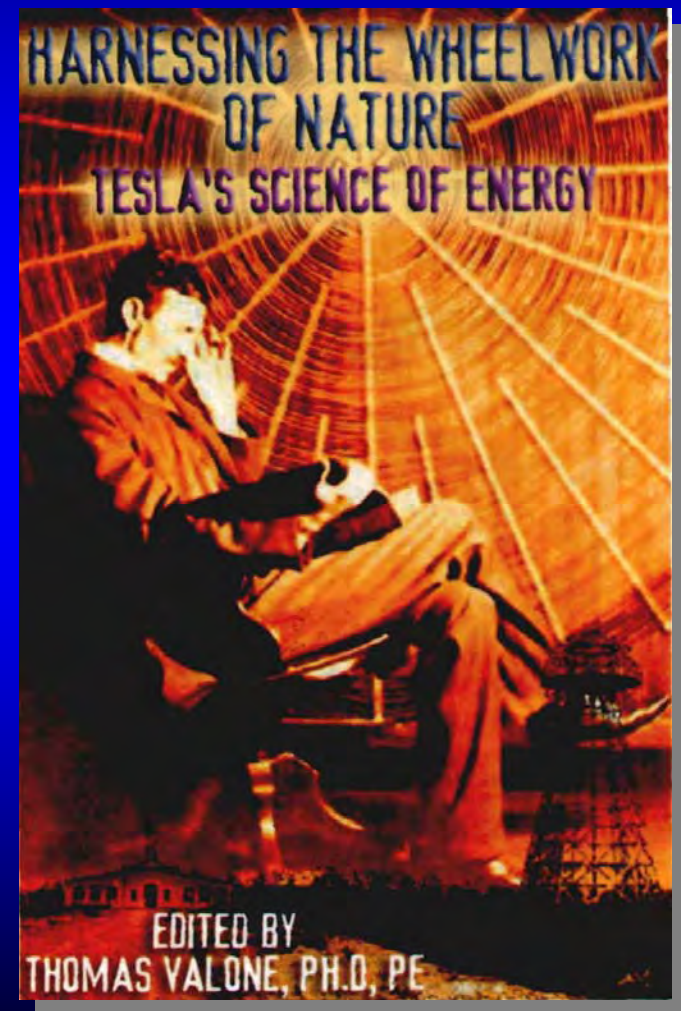
**NiCd Rechargeable Cell: 1.2V for Solar garden Lantern (1P)**



X 3 for 8 hours of light

# Quote from Nikola Tesla

“Throughout space there is energy. Is this energy static or kinetic? If static our hopes are in vain; if kinetic – and we know it is, for certain – then it is a mere question of time when men will succeed in attaching their machinery to the very wheelwork of Nature. Many generations may come to pass, but in time our machinery will be driven by a power obtainable at any point in the Universe.”





# PROPULSION

2001  
2000

**IRI Program**



# PROPULSION PROGRAM

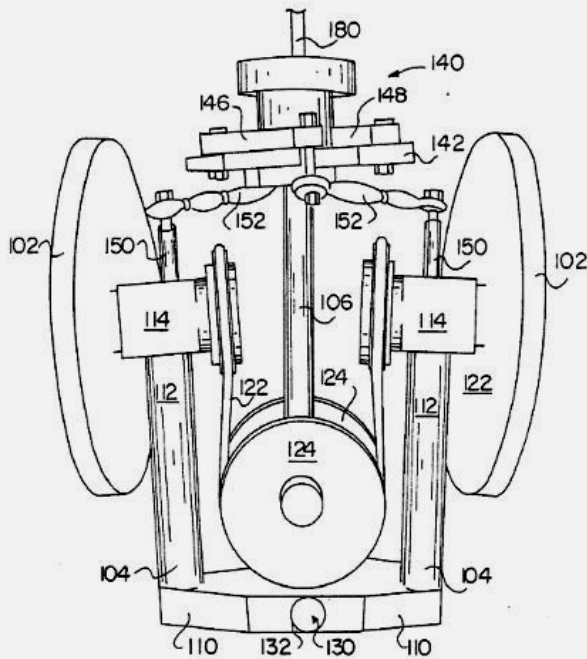
**THOMAS VALONE, PH.D.**

**PRESIDENT,  
INTEGRITY RESEARCH INSTITUTE**

History Channel, "Ancient Aliens," 2011

# IRI Inertial Propulsion Research

A purely mechanical process of using rotating masses, such as “**scissoring gyroscopes**” to cancel or rectify centrifugal force and produce thrust in **ONE DIRECTION**, e.g., Kidd #5,024,112



Kidd  
patent

Engineer **Mike Gamble** discloses in 2012 that Boeing has been using inertial propulsion (*scissoring gyros*) on its satellites “for years” at **COFE5** sponsored by **IRI**



But the future use of zero point energy will be  
*Maximum Propulsion with Inertia-Free Convenience*



<http://video.google.com/videoplay?docid=6707218432575087751#>

# Black Projects Have **Inertial Shielding**

As seen on History Channel, 2008




Dr. Bruce Cornet,  
geologist led group  
of eye witnesses

1995 Photo credit:

W. Marc  
Whitford

enables fast acceleration

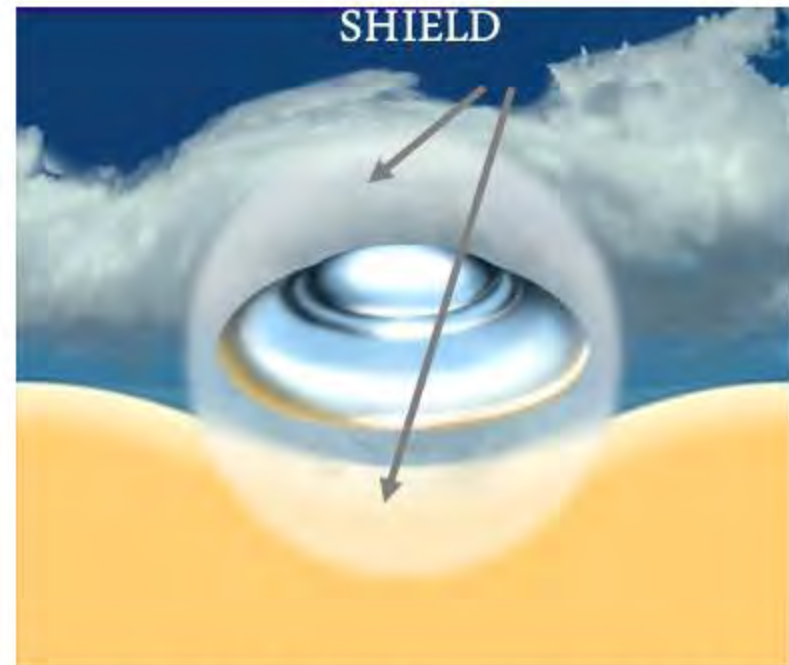
- Pine Bush near Stewart AFB
- Delta-shaped aircraft 
- Two mobile white headlights
- Steady red, green lights and blinking yellow lights on tips of craft
- No visible contrail
- Abrupt change of direction
- Ability to hover motionless
- Inverse Doppler effect
- Audible but low engine noise

# BENEFITS OF INERTIAL SHIELDING

$$\text{Force} = (\text{inertial mass}) \cdot \text{acceleration}$$

A discovery worthy of  
research and development

**$F = ma$**  depends  
only on inertial  
mass, not on  
gravitational mass



SHIELD INERTIA ( $m \rightarrow 0$ ) AND "a"  
INCREASES ASTRONOMICALLY

## Inertia as a zero-point-field Lorentz force

Bernhard Haisch

*Lockheed Palo Alto Research Laboratory, Division 91-30, Building 252, 3251 Hanover Street, Palo Alto, California 94304  
and Max-Planck-Institut für Extraterrestrische Physik, D-85740 Garching, Germany*

Alfonso Rueda

*Department of Electrical Engineering, California State University, Long Beach, California 90840*

H. E. Puthoff

*Institute for Advanced Studies at Austin, 4030 Braker Lane West, Suite 300, Austin, Texas 78759*

(Received 8 February 1993)

**“The ZPF will exert a magnetic Lorentz force...”**

...constitutive primary  
honored classical technique, it is shown that  
magnetic component of the Lorentz force) arises in any accelerated reference frame from the interaction  
...through asymptotically

**Resistance to acceleration results from  
Davies-Unruh effect (acceleration-caused  
flux of radiation scattering)**

$$\mathbf{F} = (e/c) \mathbf{v}(t) \times \mathbf{B}_{\text{ZP}}(0,t) = - [\Gamma \hbar \omega^2 / 2\pi c^2] \mathbf{a}$$



# **Analysis of Electrogravitics and Electrokinetics for Aviation and Space Travel**

**Thomas Valone, PhD, PE**

**STAIF, Albuquerque, NM**

**[www.unm.edu/~isnps/staif/2006](http://www.unm.edu/~isnps/staif/2006)**

**February 16, 2006**

***and***

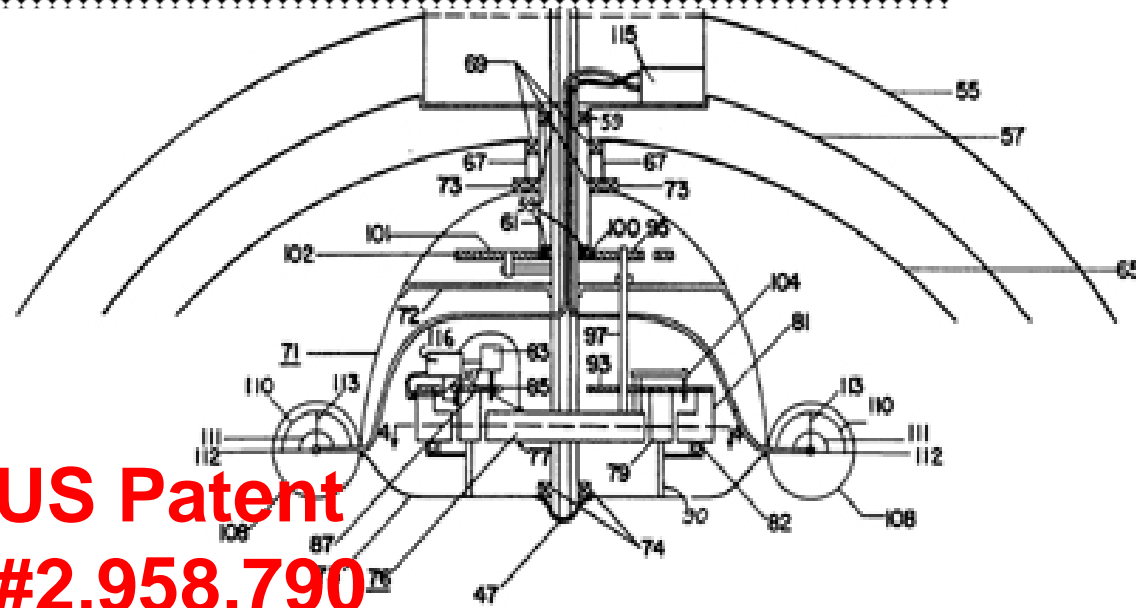
**AIAA, Joint Propulsion Conference,**

**Hartford CT**

**July 23, 2008**



**Brown & Bahnson  
Lab studied  
electrogravitics  
designs and  
received over a  
dozen patents**

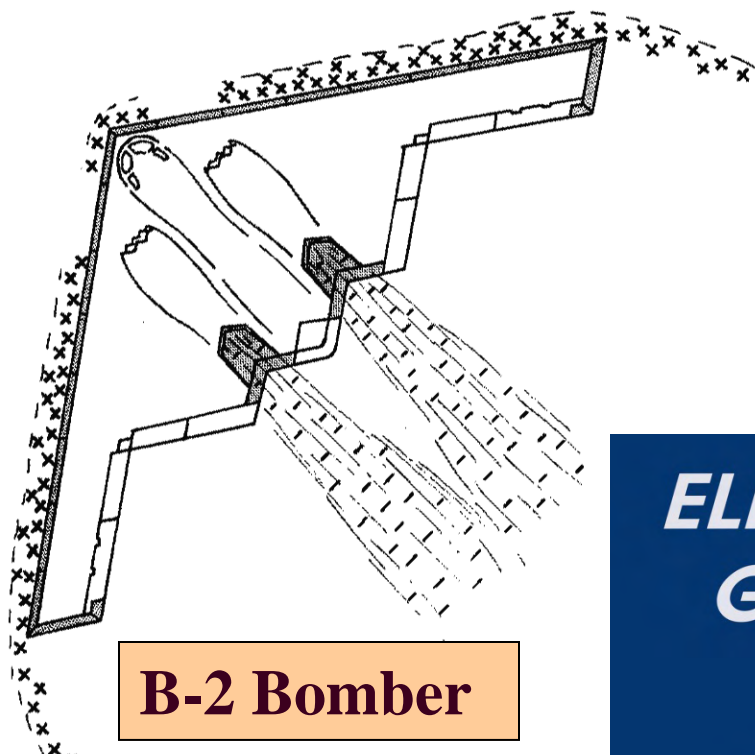


**US Patent  
#2,958,790**

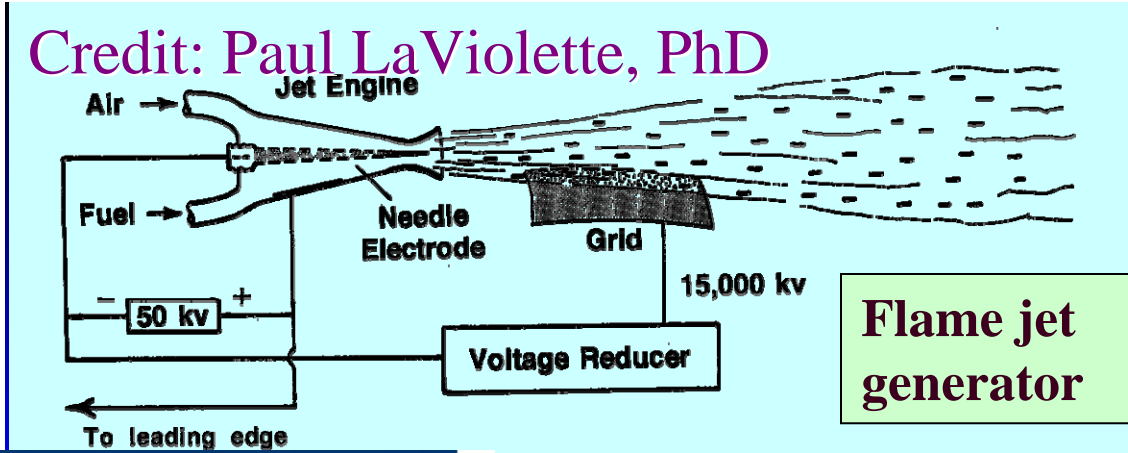
FIG. 3



Experimental tri-axial ballistic electrode  
3 feet in diameter



**B-2 Bomber**



**Flame jet generator**

# ELECTRO GRAVITICS SYSTEMS

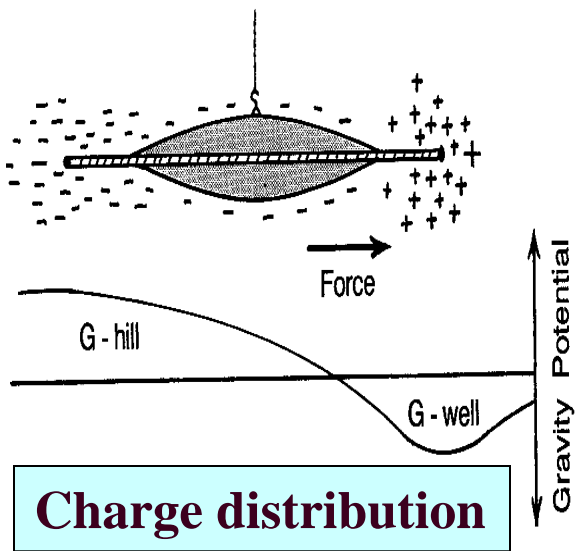
Volume I

Thomas Valone, PhD

# ELECTRO GRAVITICS II

Validating Reports on a New Propulsion Methodology

Thomas Valone, PhD



**Charge distribution**

## Current Research

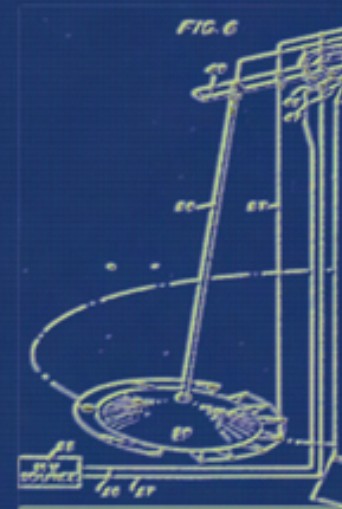
# Second Volume

- AFL report
- Honda Lab report
- T.T.Brown biography
- McCandlish Norton AFB hovercraft report
- *Valone interpretation of electrokinetic equation and its force predictions*
- Recent related patents

## ELECTRO GRAVITICS II

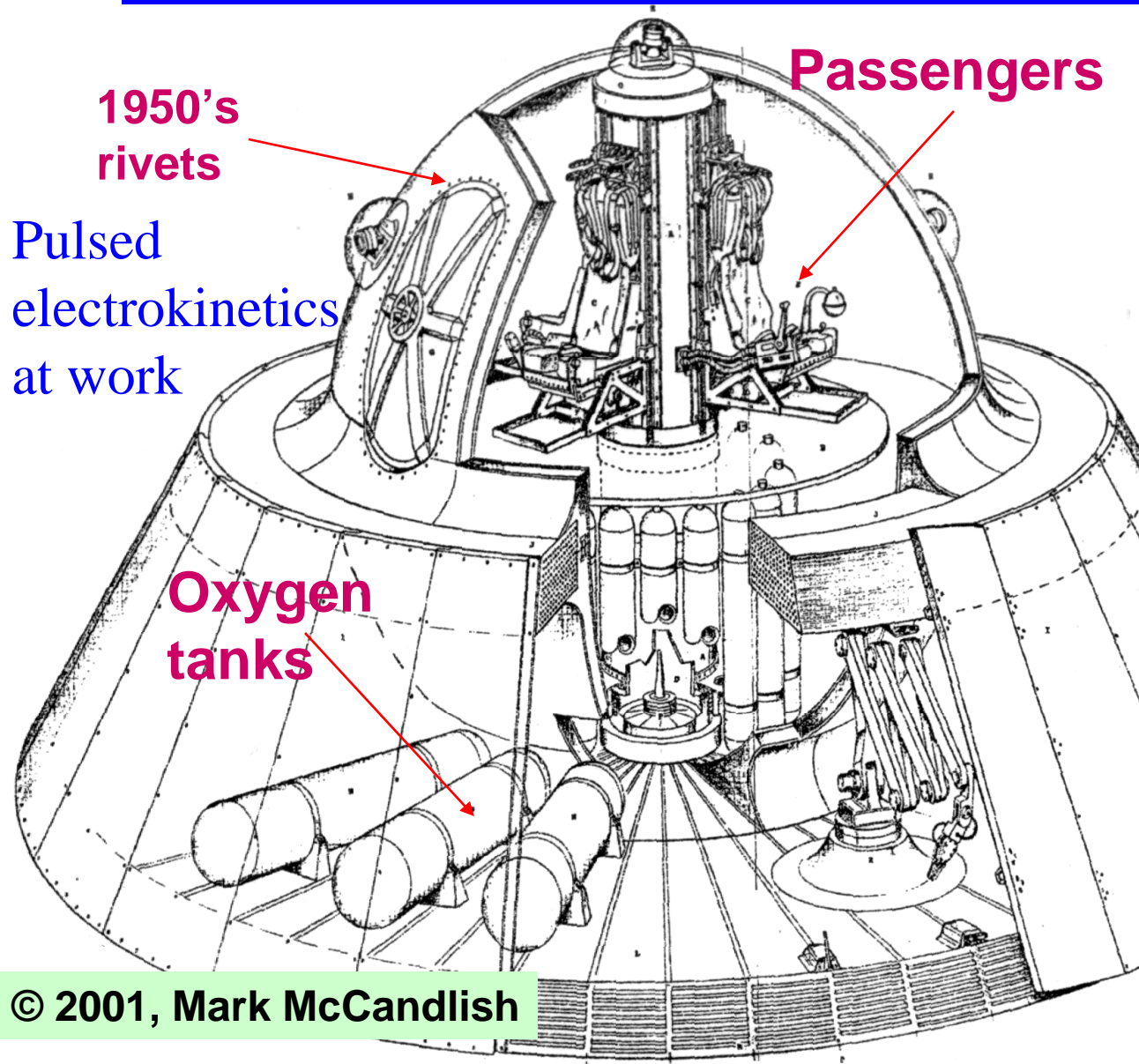
Validating Reports on a New Propulsion Methodology

Thomas Valone, PhD



# Electrogravitics HoverCraft Demo

## Norton Air Force Base 1988



**Complete story**  
**in *Disclosure* by**  
**Dr. Steven Greer &**  
***Electrogravitics II***  
**by Tom Valone**

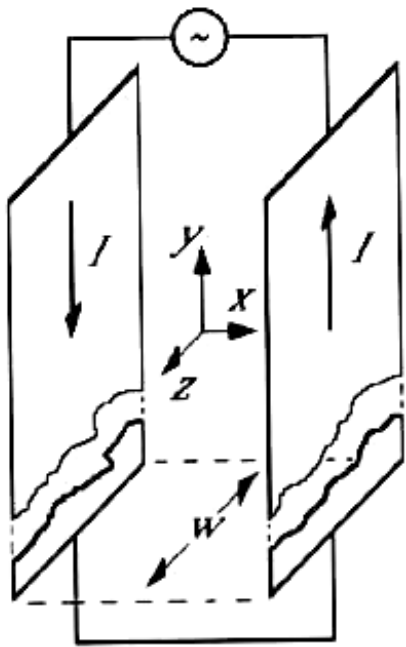
**Investigated by**  
**Dr. Hal Puthoff,**  
**former CIA**  
**contractor**

**Seen by Brad**  
**Sorenson and a**  
**Congressman**

© 2001, Mark McCandlish

# Jefimenko's Electrokinetic Equation

Professor, W. Virginia University



$$\mathbf{E}_k = -\mu_0 \frac{\partial I}{\partial t} \frac{x}{w} \mathbf{j}$$

- Time derivative of current
- Fast pulsed current with short rise time will produce the **largest force**

*Causality, Electromagnetic Induction and Gravitation*, Jefimenko, 2000

Homopolar Generators are “a subject worthy of further research”

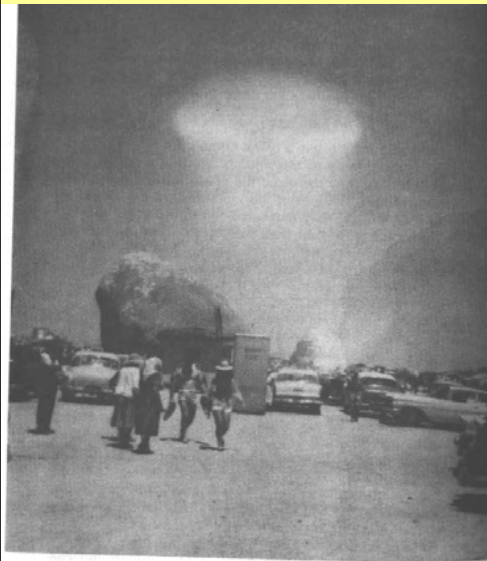
# The Homopolar Handbook

A Definitive Guide to Faraday Disk and N-Machine Technologies

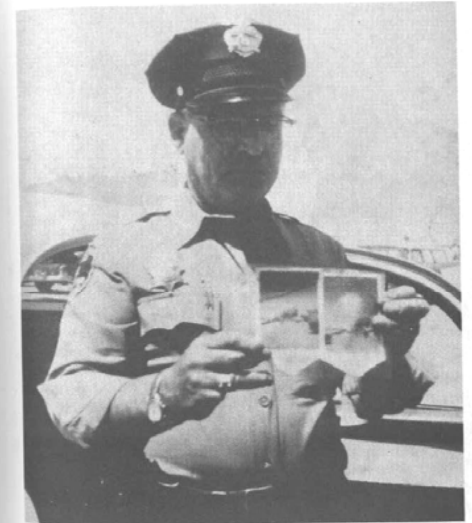


Thomas F. Valone, PhD

Based on Sunburst: Return of the Ancients book by Norman Paulsen:

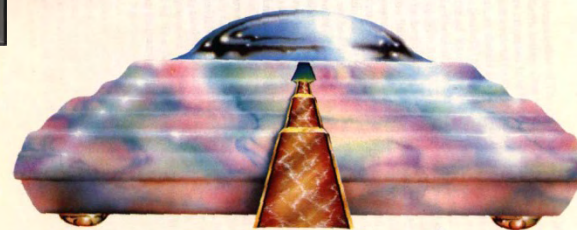
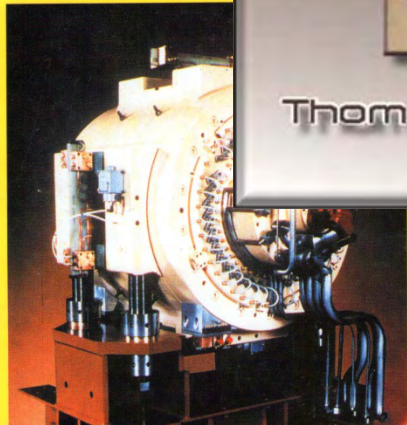


A ship over Giant Rock.



And the deputy sheriff who took the picture.

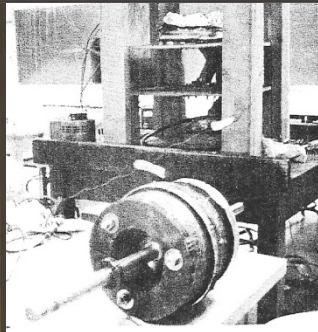
THOMAS VA  
DAS UNIPOLAR



Giant Rock,  
Calif. saucer,  
photo & deputy  
sheriff who took  
the photo

German edition

EIN GRUNDLAGENWERK DER FREIEN ENERGIE:  
FARADAY-SCHEIBE UND N-TECHNOLOGIEN



“Magnets around the edge of a rotating disk”

“generator would be self-perpetuating”

# Books that Contain Most of this Slideshow

“Future energy can  
do our work  
without working  
our undoing”

Join our IRI  
conversation at  
[Futureenergy.org](http://Futureenergy.org)  
to re-empower the  
world

