Electronic Comment to the Diablo Canyon Decommissioning Engagement Panel
May 22, 2024

DIABLOCANYONPANEL.ORG

MAY 23, 2024 APPROXIMATELY 5 PM ET 2 PM PT

I am the person who had difficulty last night trying to eliminate the double Zoom I was getting throughout the 3 hour presentation. As you know, I wanted to speak but actually it is much better to present this in writing.

If it were not for a news article by ksby that appeared on my phone yesterday morning, I would not have known about the meeting. The Court never responded any further about being a pro se non-litigant.

I plan to send this to ksby.com in appreciation.

This is a new website that I entered for Contest TechBriefs

2024
Automotive/Transportation
AVL Racetech I.C.E. and On-board H2 Generation via Solute ION Monopole Motor (SIMM) Generator and Electrolyzer

It shows the SIMM Generator which could be SIMMs operating the Diablo Canyon generators on a much larger scale of course.

Based on the Panel presentation last night by Susan Strachan, development of the SIMM could be part of the Cal Poly Clean Tech Innovation Park on an emergency basis for the reasons I explain below.

The emails below, except for my comment of today, May 23, 2024, were submitted to the US Court of Appeals for the Ninth Circuit for the purpose of trying to determine how to submit a pro se amicus curiae friend of the court brief.

As you can see, I do not think the information I was given solved the matter, only if I were a pro se litigant.

So, I hope that submitting this to the Diablo Canyon Decommissioning Panel Project will accomplish the same objectives.

May 8, 2024

To US Court of Appeals for the Ninth Circuit
THE JAMES R. BROWNING COURTHOUSE
95 7TH STREET,
SAN FRANCISCO, CA 94103
Phone: (415) 355-8000
Hours: 8:30AM - 5:00PM

Chief Judge Mary Murguia

Questions@ca9.uscourts.gov

SUBJECT: DOCKET ??? MOTHERS FOR PEACE, FRIENDS OF THE EARTH, ENVIRONMENTAL WORKING GROUP VS. PACIFIC GAS AND ELECTRIC COMPANY AND US NUCLEAR REGULATORY COMMISSION - OPERATION OF DIABLO CANYON NUCLEAR POWER PLANT

Dear Chief Judge Murguia:

As you can see from below, on March 28, 2024 and April 1, 2024, I sent emails to the Questions@ca9.uscourts.gov.

It appears that the only response from the court regarding this crucial matter occurred on April 1, 2024 which indicates a website for filing Electronic Documents for cases which I myself would be one of the litigants.

Questions CA09Operation
From:questions@ca9.uscourts.gov
To:Fresco Anthony
Mon, Apr 1 at 7:31 PM

Thank you for sending your inquiry to the U.S. Court of Appeals for the Ninth Circuit. This email box is for inquiries about pending court of appeals cases only. This email box is not for filing pleadings with the court of appeals. If you are an attorney, you must file pleadings using CM/ECF or ACMS. If you are a pro se litigant who is not registered for CM/ECF and wish to file a pleading, you must submit your pleadings via the Electronic Document Submission System, available here: Pro Se and Self Represented Litigants: Information, Links and Forms.

This email box is monitored during the hours of 8:30 a.m. – 5:00 p.m, and court staff will respond to you promptly during those times. Please make sure that you included your case number (if applicable), name, and phone number should court staff need to contact you.

However, I am trying to present an amicus curiae brief to the court in the very important Diablo Canyon case.

I do not know the Docket No. nor do I believe the information presented is relevant since I am not a pro se litigant, or is that what I am supposed to claim in order to present an amicus curiae brief?

I can further mention here that application of the Solute Ion Monopole Motor (SIMM) to operation of the electrical generators at Diablo Canyon so that the plant could continue to provide non-Green House Gas (GHG) emitting power generation but without the risks associated with a reactor core meltdown would not only benefit Diablo Canyon but also other existing nuclear power plants.

Furthermore, other steam cycle power plants such as coal, oil and natural gas plants could also be converted to non-GHG power generation in a similar manner by replacing the steam turbines with the SIMM to rotate the electrical generator.

This would also be of great benefit so that all such plants would not need to be retired but could be converted to continue as non-GHG plants.

IN SUMMARY, UNLESS THERE WAS AN ERROR ON MY PART IN RECEIVING A RESPONSE FROM THE COURT REGARDING MY REQUEST TO SUBMIT AN AMICUS CURIAE BRIEF, UNLESS I RECEIVE A FORMAL RESPONSE OF SOME KIND BY FRIDAY, MAY 17, 2024, IN MY NEXT MESSAGE I WILL BE FORCED TO PROVIDE INFORMATION REGARDING THE REAL, UNKNOWN, EXTREME SERIOUSNESS OF CLIMATE CHANGE, WHICH WILL FURTHER ADD VERY, VERY GREATLY TO THE NEED FOR URGENT CONSIDERATION BY THE COURT OF MY AMICUS CURIAE BRIEF.

I look very much forward to receiving a response as soon as possible.

Sincerely yours,
Anthony N. Fresco, M.S.M.E.
The Jolly Green Chlorine Machine
PO Box 116
Port Jefferson Station, New York 11776-0116

Tel. +1 631.455.0944

anfresco100@yahoo.com
afresco@jollygreenchlorinemachine.onmicrosoft.com
Isoluteu@gmail.com

HERE IS THE INFORMATION RELATED TO CLIMATE CHANGE THAT I AM PLANNING TO SUBMIT TO THE COURT AND WHICH UNFORTUNATELY I HAVE NO CHOICE BUT TO SUBMIT HERE TO THE PANEL:

MAY 23, 2024

I WILL NOT BE WINNING ANY POPULARITY CONTESTS BY HEREBY EXPLAINING THE TRUE DANGER OF CLIMATE CHANGE.
3 DAYS AGO, IN POZZUOLI ITALY, A SMALL TOWN WEST OF NAPLES, THERE WAS A MAGNITUDE 4.4 EARTHQUAKE, THE LARGEST IN 40 YEARS. IT CAUSED TREMENDOUS PANIC BECAUSE THE TOWN IS BUILT OVER THE CAMPI FLEGREI SUPERVOLCANO WHICH I BELIEVE HAS A 100 KM DIMENSION, SO IT IS IN THE SAME RANGE AS YELLOWSTONE.

GEOLOGYHUB YOUTUBE MAY 21 OR 22, 2024

Campi Flegrei Supervolcano Update; Largest Earthquake in 40+ Years

Campi Flegrei Supervolcano Update; Largest Earthquake in 40+ Years
68K views1 day ago
GeologyHub

At a supervolcano in Italy, several million people just felt a fairly sizable earthquake which was volcanic in origin. This quake was ...

New

De Luca risponde a Musumeci: "Non si può dare ai cittadini la colpa di essere nati ai Campi Flegrei"

THE ABOVE MEANS "THOSE WHO WERE BORN HERE ARE NOT RESPONSIBLE"

SUPERVOLCANOES CAN CAUSE VOLCANIC WINTERS WITH PEOPLE AROUND THE GLOBE STARVING TO DEATH, DESTROYING ELECTRICITY INTERNET AGRICULTURE.

FROM APRIL TO AUGUST 2021, I INFORMED THE RELEVANT AUTHORITIES IN THE US AND THE INGV IN ITALY THAT SINCE THE EARTH IS A NUCLEAR REACTOR, 47 TERAWATTS FROM THE CENTER OF THE EARTH FROM THE CORE, WHICH IS EQUIVALENT TO ABOUT 65,000 15 KILOTON ATOMIC BOMBS OF HEAT PER DAY, DUE TO THE INCREASE IN OCEAN TEMPERATURES, THIS HEAT CANNOT BE

ENTIRELY TRANSFERRED INTO OUTER SPACE EVERY DAY. THEREFORE THE ENTIRE PLANET HAS SEEN AN INCREASE IN EARTHQUAKES AND VOLCANOES.

AS YOU WELL KNOW, EVEN IF CAMPI FLEGREI DOES NOT ERUPT, THE US WEST COAST IS SUBJECT TO THE SAN ANDREAS FAULT AND CASCADIA SUBDUCTION ZONE.

HERE ON THE EAST COAST, THERE WAS A M4.8 EARTHQUAKE IN NEW JERSEY, WHICH AFFECTED MOST OF THE NORTHEAST, AND CAUSED TALL BUILDING IN MANHATTAN TO SHAKE.

THERE IS TOO MUCH RECENT SEVERAL YEARS OF EVIDENCE ABOUT WHAT IS ACTUALLY HAPPENING DUE TO CLIMATE CHANGE CAUSED BY INCREASING OCEAN TEMPERATURES WITH RESPECT TO EARTHQUAKE, VOLCANOES AND SUPERVOLCANOES TO GO INTO HERE.

JUST BASED ON THE PRESENTATION YESTERDAY BY OERSTED, IT WOULD TAKE YEARS TO CONSTRUCT WIND FARMS WHICH ARE OVERALL VERY EXPENSIVE TO CONSTRUCT AND REQUIRE LARGE BATTERY STORAGE AREAS, ETC., TO MAKE A REAL DENT IN THIS EXTREMELY SERIOUS PROBLEM.

OERSTED WOULD BE FAR BETTER OFF BUILDING MUCH MORE POWERFUL, MUCH SMALLER AND LESS EXPENSIVE ONSHORE SOLUTE ION MONOPOLE MOTORS FOR GLOBAL APPLICATIONS PRACTICALLY ANYWHERE.

IN CALIFORNIA THERE IS NOW A PROPOSAL FOR BUILDING A $20 BILLION WATER TUNNEL TO TRANSPORT FRESH WATER FROM THE NORTH TO THE SOUTH. IN VIEW OF THE OPPOSITION AND EXPENSE, IT WOULD BE FAR BETTER TO BUILD PIPELINES FROM THE PACIFIC INLAND ALONG THE COAST UTILIZING EITHER SIMM TO OPERATE HIGH PRESSURE REVERSE OSMOSIS CONVENTIONAL MEMBRANE DESALINATION OR BETTER YET TO OPERATE SOLUTE ION LINEAR ALIGNMENT (SILA) DESALINATION AS EXPLAINED BELOW. THE BRINE CAN BE DILUTED ECONOMICALLY UTILIZING SIMM AS THE POWER AND PUMPING SOURCE IF IT IS FEASIBLE TO RECOVER THE WASTE WATER TO PUMP BACK TO THE OCEAN SOURCE.

ALTERNATIVELY, LONG PIPELINES CAN BE BUILT ALONG THE COAST WITH SIMM PUMPING BRINE BACK INTO THE OCEAN AT DIFFERENT LOCATIONS TO ENABLE DILUTION IN THE OCEAN TO AVOID HARMING MARINE LIFE.

I BELIEVE SILA AND SIMM ARE THE KEY TO SURVIVAL AND CAN VERY MUCH BE THE FOCUS OF THE CAL POLY INNOVATION PARK ON AN EMERGENCY BASIS AS WELL AS HAVING MANY OTHER IMPORTANT APPLICATIONS.

----- Forwarded Message -----
From: Fresco Anthony
To: questions@ca9.uscourts.gov
Cc: Anthony Fresco ; Anthony Fresco ; Anthony Fresco
Sent: Monday, April 1, 2024 at 07:21:17 PM EDT
Subject: Fw: VERY IMPORTANT INFORMATION - DIABLO CANYON NUCLEAR POWER PLANT CASE

April 1, 2024

To US Court of Appeals for the Ninth Circuit
THE JAMES R. BROWNING COURTHOUSE
95 7TH STREET,
SAN FRANCISCO, CA 94103
Phone: (415) 355-8000
Hours: 8:30AM - 5:00PM

Chief Judge Mary Murguia

Questions@ca9.uscourts.gov

SUBJECT: DOCKET ??? MOTHERS FOR PEACE, FRIENDS OF THE EARTH, ENVIRONMENTAL WORKING GROUP VS. PACIFIC GAS AND ELECTRIC COMPANY AND US NUCLEAR REGULATORY COMMISSION - OPERATION OF DIABLO CANYON NUCLEAR POWER PLANT

Dear Chief Judge Murguia:

I am following up now on this email at a relatively early stage in the possible interest of full disclosure since the defendants include not only PG&E but also the US Nuclear Regulatory Commission.

In the event that it is relevant, as part of the 21 years of my engineering career that I spent at Brookhaven National Laboratory, aside for the first two years being involved in procurement of compressors for the superconducting magnets of what is now the Relativistic Heavy Ion Collider, I was later involved in supporting the US Nuclear Regulatory Commission in Probabilistic Risk Assessment (PRA) of nuclear power plants. I was an onsite inspector for many nuclear power plants for evaluating the procedures for evacuation of the control room following a postulated fire and assessing their safe shutdown capability at auxiliary shutdown panels outside the control room.

Later on, as part of the USNRC's Maintenance Rule, I was the onsite inspector for many nuclear power plants around the country to evaluate their application of PRA with respect to the requirements of the Maintenance Rule.

In fact, around July 1997 I believe it was, I was the onsite inspector at Diablo Canyon in that regard.

I also have relevant experience prior to my position at Brookhaven National Laboratory which I will not go into right now.

I look very much forward to a response shortly on this very critical matter of great national and actually global importance.

Sincerely yours,
Anthony N. Fresco, M.S.M.E.
The Jolly Green Chlorine Machine
PO Box 116
Port Jefferson Station, New York 11776-0116

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afresco@jollygreenchlorinemachine.onmicrosoft.com
Isoluteu@gmail.com

----- Forwarded Message -----
From: Fresco Anthony
To: Questions@ca9.uscourts.gov
Cc: Anthony Fresco ; Anthony Fresco ; Anthony Fresco
Sent: Thursday, March 28, 2024 at 06:12:40 PM EDT
Subject: VERY IMPORTANT INFORMATION - DIABLO CANYON NUCLEAR POWER PLANT CASE

March 28, 2024

To Ninth Court of Appeals for the Federal Circuit
THE JAMES R. BROWNING COURTHOUSE
95 7TH STREET,
SAN FRANCISCO, CA 94103
Phone: (415) 355-8000
Hours: 8:30AM - 5:00PM

Chief Judge Mary Murguia

Questions@ca9.uscourts.gov

SUBJECT: DOCKET ??? MOTHERS FOR PEACE, FRIENDS OF THE EARTH, ENVIRONMENTAL WORKING GROUP VS. PACIFIC GAS AND ELECTRIC COMPANY AND US NUCLEAR REGULATORY COMMISSION - OPERATION OF DIABLO CANYON NUCLEAR POWER PLANT

Dear Chief Judge Murguia:

I am an engineer in New York who submitted the following Contact Form information separately to Mothers for Peace and Environmental Working Group on March 6, 2024.

I have received no response from either group.

As you can see, I strongly believe the Diablo Canyon Nuclear Power Plant can and should remain open to significantly alleviate climate change and to reduce very significantly the electric power rates to the consumers.

This is on the condition that the technology of Solute Ion Monopole Motor (SIMM) is developed and utilized to replace the existing Nuclear Steam Supply System as explained in the Contact Form.

The technology of Solute Ion Linear Alignment (SILA) and/or SIMM can also be used to very inexpensively desalinate seawater, thereby addressing another serious issue both in terms of cost and climate change.

Please note the additional information available in the attached Archive(1)(1) zip file which I could not submit with the Contact Forms.

There is another very serious issue caused by climate change that I will not go into here at this time.

I would kindly request that this information be submitted as an amicus curiae brief.

I do not have any resources to retain counsel to do this myself.

Given the extremely serious nature of climate change and the urgent need to retain all non-GHG producing power sources available, as well as to significantly improve the economy for the ratepayers, it is urgent that this matter be seriously considered by the Court.

Solar, wind and battery storage cannot do the job in time or meet the energy requirements of AI or semiconductor manufacturing, as well as those of agriculture.

Please advise as to the status of this very, very important matter.

Sincerely yours,
Anthony N. Fresco, M.S.M.E.
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Isoluteu@gmail.com

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Contact Us

San Luis Obispo Mothers for Peace is a non-profit organization concerned with the local dangers involving the Diablo Canyon Nuclear Power Plant and with the dangers of nuclear power, weapons, and waste on national and global levels. Additionally, Mothers for Peace concerns itself with issues of peace, social justice, and a safe environment. Fill in this form to contact us.
Thanks for contacting us! We will get in touch with you shortly.

Have a question? Want to further connect with EWG’s team? Let’s connect! We can’t wait to hear from you.

Please note: As EWG’s office will be closed for the holidays, replies to question submissions may be delayed.
Status message
Your message has been sent.

MARCH 6, 2024

Mothers for Peace
San Luis Obispo County
California

VIA CONTACT FORM

Environmental Working Group
1250 I Street NW
Suite 1000
Washington, DC 20005

VIA CONTACT FORM

Friends of the Earth are a waste of time

SUBJECT: REPLACING STEAM TURBINE AT DIABLO CANYON WITH SOLUTE ION MONOPOLE MOTOR (SIMM) TO OPERATE GENERATOR AND STEAM SYSTEM WITH SOLUTE ION LINEAR ALIGNMENT (SILA) TO DESALINATE OCEAN WATER

Dear Mothers for Peace and Environmental Working Group

I saw this news article the other day about the law suit which your groups have filed to shut down Diablo Canyon.

March 4 2024

https://www.sanluisobispo.com/news/local/environment/article286285770.html

I think a much better for the planet approach would be to propose changes to the Diablo Canyon Nuclear Power Plant as follows.

As in any conventional power plant, such as an oil-fired, gas-fired or coal-fired power plant, Diablo Canyon has an AC Generator that is rotated by a Steam Turbine. The AC Generator then supplies electricity to the power grid.

The Steam Turbine is supplied steam from 3 Steam Generators which in turn are heated by the Reactor Coolant System that directly interfaces with the nuclear fuel in the reactor.

The technology of Solute Ion Monopole Motor (SIMM) is explained below. It is an extremely powerful method based on the salt in seawater or the just table salt dissolved in fresh water, as examples.

It is 24/7 renewable energy. No battery storage is required.

The Steam Turbine at Diablo Canyon can be replaced by SIMM to operate the Generator.

In addition, to further solve the world and California drought problems and climate change issues, Solute Ion Linear Alignment (SILA) can be utilized to provide a Power Generating Method of Desalination by Flash Distillation.

The brine that is created can be environmentally and economically returned to the ocean in a distributed manner such as through a long pipe of several miles in length with branch connections along the way so that the brine is not concentrated at those individual locations, thereby not harming marine life.

Alternatively, the fresh wastewater from the end users can be mixed with the brine to dilute it to normal salt concentrations before discharging into the ocean.

These approaches can be economically achieved by the incredible power of the SIMM and SILA.

I urge both of your groups to do something really significant to save the planet in time.

I can go into more detail about why the situation is even more urgent than people think but what I am proposing here should be enough to spark urgency.

Solar and wind and batteries are not capable of doing the job in time, are intermittent and expensive and generate a lot of waste materials, and in fact are facing a lot of opposition in the farmlands, with a lot of justification in my opinion.

I look forward to hearing from you as soon as possible regarding this urgent matter.

Sincerely yours,
Anthony N. Fresco, M.S.M.E.
PO Box 116
Port Jefferson Station, New York
11776-0116

anfresco100@yahoo.com
isoluteu@gmail.com

Tel. 1 631.455.0944

MARCH 5, 2024

Embassy of Mexico to the United States

1911 Pennsylvania Avenue NW
Washington, DC 20006

202 728 1600 / 1628 FAX

mexembusa@sre.gob.mx

consejeria.sagarpausa@verizon.net

Secretariat of Agricultural and Rural Development

Name

Position

Phone

Email

Carlos Vázquez

Minister

202-728-1723

consejeria.sagarpausa@verizon.net

SUBJECT: URGENT - SOLUTE ION LINEAR ALIGNMENT (SILA) FLASH DISTILLATION DESALINATION AND POWER GENERATION FOR PUMPING VIA SOLUTE ION COULOMB FORCE MONOPOLE MOTOR (SIMM) TO PROVIDE FRESH WATER TO MEXICO CITY

Dear Minister Vazquez and the Science Attache

I have seen this very important story about the drastic water supply situation in Mexico City

https://www.cbsnews.com/news/mexico-city-nearly-out-of-water-many-go-days-if-not-weeks-without-it/

I know that Mexico City is inland near the center of Mexico away from the Atlantic and Pacific Oceans and depends on underground fresh water aquifers for water supply.

I do not know if there are any brackish aquifers in the area.

I must call to your attention the technology of solute ion linear alignment (SILA) which can be the only power generating method of desalination.

The solute ion monopole motor (SIMM) can be utilized to pump water either to the surface from brackish aquifers or long distance from the Atlantic and Pacific Oceans.

I look very much forward to hearing from the Mexican Government very soon regarding this urgent matter for the 22 million persons affected by this very serious water crisis.

Sincerely yours,
Anthony N. Fresco, M.S.M.E.
PO Box 116
Port Jefferson Station, New York
11776-0116 USA

Tel. 1 631 455 0944

anfresco100@yahoo.com
isoluteu@gmail.com

DESCRIPTION OF THE TECHNOLOGY:

The following is a 4 minute explanation by the proposer of Solute Ion Linear Alignment (SILA) and Monopole Motor (SIMM)

https://www.youtube.com/watch?v=h3dnEVOO4Z8

The following websites illustrate how SILA and SIMM can be applied in numerous very important applications:

The 2012 website provides a basic explanation of both SILA and SIMM: Solute Ion Coulomb Force Monopole Motor and Solute Ion Linear Alignment Propulsion
Nano-Graphene Oxide Coated Electrolyzers Supplied Distilled Water and Power via Solute

Ion Linear Alignment (SILA) Ion Beams & Monopole Motor (SIMM) and Phosphorus Recovery for Agriculture

Wastewater Treatment and Biomass Decomposition via Solute ION Linear Alignment ION Beams

Solute ION Linear Alignment (SILA) Particle Accelerator for AI and Bitcoin Energy Requirements, Rare Earth Production et al

Solute Ion Linear Alignment Heavy Ion Beam Cancer Therapy and Covid-19 Sterilization

Solute Ion Linear Alignment Flash Distillation And Power Generation

Solute Ion Monopole Motor and Solute Ion Linear Alignment Propulsion

1 liter of seawater contains about 35 grams of salt or 0.035 kg.

If the SILA ion beams of Na+ and Cl- (for simplicity assume only NaCl is in the sea water) are accelerated to 10E+8 m/sec, neglecting relativistic effects, then the kinetic energy is

K.E.. = 1/2 (mV^2) = 1/2 (0.035 kg)(10E+8 m/sec)^2 =

2 x 10E+14 J or 2 x 10E+8 MJ = 2 x 10E+5 GJ = 2 x 10E+2 TJ

Since it requires about 2.6 MJ to boil 1 liter of water,

theoretically, the 35 grams of salt could boil

2 x 10E+8/2.6 or about 7x 10E+7 liters or 70,000,000 liters (70,000 m3).

APPLYING THE ABOVE RESULTS, THEORETICALLY, 35 GRAMS OF SALT COULD BOIL 70,000 M^3.

(1 CUBIC METER M^3 EQUALS 1 METRIC TON OR 2200 LBS OR 1000 LITERS OF WATER).

To summarize, the technology involves the following:

1. A MOTOR POWERED BY THE SALT IN SALT WATER [SOLUTE ION MONOPOLE MOTOR (SIMM)].

2. ION BEAMS WHICH ARE VERY HIGH SPEED JETS THAT ARE FORMED ALSO BY THE SALT IN SALT WATER

[SOLUTE ION LINEAR ALIGNMENT (SILA) ION BEAMS].

APPLICATIONS FOR THIS TECHNOLOGY ARE AS FOLLOWS (DETAILS OMITTED):

1. Very Powerful Power Generation and Seawater Desalination Method.

(Note: As far as I am aware, there is no other method of desalination that can produce energy rather than consume it. Gas, oil, coal and nuclear power plants make energy available by boiling water but they cannot do this from seawater or brackish water. They have to continuously recycle the same distilled water over and over again).

2. Method of Separating Water H2O Into Hydrogen H2 and Oxygen O2.

For 1 and 2, see
https://contest.techbriefs.com/2014/entries/sustainable-technologies/4465

3. Wastewater Treatment and Biomass Decomposition Via SILA Ion Beams

For 3, see

Wastewater Treatment and Biomass Decomposition via Solute ION Linear Alignment ION Beams

Wastewater Treatment and Biomass Decomposition via Solute ION Linear Ali...

Anthony Fresco

The Create the Future Design Contest was launched in 2002 by the publishers of NASA Tech Briefs magazine to help...

4. Heavy Ion Beam Cancer Therapy

5. COVID-19 and Other Pathogens Sterilization by Generating UV and Other Light Rays

For 4 and 5, see

https://contest.techbriefs.com/2020/entries/medical/10431

This UV light could generate new pharmaceutical compounds that might be utilized to accumulate in tumors and be subject receiving the light or the ion beams that could then destroy the tumors in a process similar to what is called boron neutron capture therapy BNCT.

6. Greatly Reduced Size and Cost Particle Accelerator for Scientific and Industrial Applications

.7. Propulsion and Motor for Marine, Submarine, Aeronautical, Space, Rail, Automotive, Trucking and Agricultural and Industrial Equipment (including Forklifts) and Construction Applications

For 7 (also 6), see
https://contest.techbriefs.com/2012/entries/sustainable-technologies/2589

8. Exothermic and Endothermic Nuclear Fusion for Rare Element Synthesis

(Note: Exothermic Nuclear Fusion, that is, heat is generated out by a nuclear fusion reaction, is what has been attempted for the last 70 years to replace existing methods of power generation.

This could provide energy requirements for AI and Bitcoin.

Endothermic Nuclear Fusion, that is, heat must be input for the nuclear fusion reaction to occur, has rarely been utilized because of the need to utilize current technology very expensive and power consuming particle accelerators. It can be of great importance to join together different elements to form a heavier element that is a rare earth element that is of importance for semiconductor design.)

See Solute ION Linear Alignment (SILA) Particle Accelerator for AI and Bitcoin Energy Requirements, Rare Earth Production et al

Solute ION Linear Alignment (SILA) Particle Accelerator for AI and Bitco...

Anthony Fresco

The Create the Future Design Contest was launched in 2002 by the publishers of NASA Tech Briefs magazine to help...

LENR Explanations: Intermittent, Haphazard Deuterium Ion Linear Alignment?

ZPEnergy.comhttps://zpenergy.com/modules.php?name=News&file=article&sid=3833

9. Spinoff Economic Boom in Agriculture, Water Transmission, Construction, Housing, etc.

The real financial gains from this technology should very well be the enormous gains to be realized by investing in the spinoff in view of the increasing global population now at 8 billion and projected to reach 9 or 10 billion by 2050 with great demands for food and water, power generation and housing, cell phones, computers, etc.
The equipment could be rented out to users rather than sold.

10. Only Practical Solution to Worldwide Droughts and Ongoing and Projected Famine and Other Effects of Climate Change Such As Tropical Storms, Hurricanes and Tornadoes

PUBLISHED TECHNICAL PAPERS:
ASME ES2010-90396-"Solute Ion Coulomb Force Monopole Motor and Solute Ion Linear Alignment Propulsion"

https://www.researchgate.net/publication/267492677_Solute_Ion_Coulomb_Force_Monopole_Motor_and_Solute_Ion_Linear_Alignment_Propulsion

BEST DRAWINGS SHOWING SIMM DESIGN:

SPESIF 2012-Elsevier-"Dielectric Analysis for Torque of Solute Ion Coulomb Force Monopole Motor"

(full publication available online here)

Dielectric Analysis for Torque of a Solute Ion Coulomb Force Monopole Motor

Dielectric Analysis for Torque of a Solute Ion Coulomb Force Monopole Motor - ScienceDirect
Physics Procedia 38 (2012) 116 â€“ 135 1875-3892 2012 Published by Elsevier B.V. Selection and/or peer-review under responsibility of the Integrity Research Institute. doi: 10.1016/j.phpro.2012.08.017 Space, Propulsion & Energy Sciences International Forum - 2012 Dielectric analysis for torque of a solute ion Coulomb force monopole motor Anthony

N. Fresco* Member , American Society of ...
www.sciencedirect.com

ASME IMECE-2016-65930 "Solute Ion Linear Alignment as the Energy Source to Address Aquifer Depletion Fresh Water Scarcity and Sea Level Rise" (Attached)
https://asmedigitalcollection.asme.org/IMECE/proceedings-abstract/IMECE2016/50596/261799

US Patent 8,925,294 January 6, 2015

"Solute Ion Coulomb Force Acceleration and Electric Field Monopole Passive Voltage Source"

US8925294B2 - Solute ion coulomb force accelaration and electric field monopole passive voltage source - Google Patents

US8925294B2 - Solute ion coulomb force accelaration and electric field m...

At least one electrode assembly is configured to enable like charged ions to convert potential energy of the lik...

LENR Explanations: Intermittent, Haphazard Deuterium Ion Linear Alignment?

ZPEnergy.comhttps://zpenergy.com/modules.php?name=News&file=article&sid=3833

Park Systems NanoScientific Symposium - October 14-15, 2020 US See Poster No. 6

https://live2.parksystems.com/home-login/

Proceedings of the 57th Annual Meeting of the Particle Therapy Cooperative Group (PTCOG): 21-26 May 2018, Hosted by Cincinnati Children's and the University of Cincinnati, part of the Cincinnati Cancer Center, Cincinnati, Ohio, USA
P 066: Solute Ion Linear Alignment (SILA) Particle Acceleration to Replace 200+ Ton Synchrotron Magnets for Particle Therapy and Onsite Power Generation

A.N. Fresco1

1Anthony N Fresco, Solute Ion Linear Alignment Acceleration, Melville New York, USA
Solute ion linear alignment propulsion was presented in ASME ES2010-90396 “Solute Ion Coulomb Force Monopole Motor and Solute Ion Linear Alignment Propulsion”. Solute ion linear alignment (SILA) is a process in which potential energy of the electrostatic fields of

like charged solute ions is converted to kinetic energy and is based on the process of capacitive deionization (CDI). See https://contest.techbriefs.com/2014/entries/sustainable-technologies/4465

In ASME ES2010-90396, it was shown that 10E+16 ions of Na+ and Cl-, i.e., could propel themselves under a force of 10E+8 Newtons and a velocity of about 10E+8 m/second.

In ASME IMECE-2016-65930, “Solute Ion Linear Alignment as the Energy Source to Address Aquifer Depletion, Fresh Water Scarcity and Sea Level Rise”, it was shown that SILA is expected to be a power generation method by comparing the 3.6 KJ/liter for capacitive deionization cycle to as much as 5 MJ of energy per planar group of ions that form the SILA ion beams.

Therefore, dramatically reduced construction costs of current day particle therapy facilities compared to 200+ ton magnets and transformation from operating power consumption to onsite power generation may be achieved by SILA, which can be applied to particle therapy in several ways. For example, gaseous CO2 can be ionized by bombardment with Na+ and Cl- between electrode plates having a voltage across so as to separate the C and O2 ions to accumulate at the electrode surfaces. Then the ion linear alignment principle could be applied in the same way to create beams of C and O ions.

Solute Ion Linear Alignment Heavy Ion Beam Cancer Therapy and Covid-19 Sterilization

Particle Therapy Cooperative Group PTCOG59-2021 Abstract PTC-2192 - Poster P005 Physics-Beam Delivery and Nozzle Design - "Solute Ion Linear Alignment Heavy Ion Beam Cancer Therapy Via CO2 in H2O Forming H+ and HCO3- Ion Beams"

EXPLANATION OF Solute Ion Monopole Motor (SIMM) and Solute Ion Linear Alignment (SILA)

1. Solute Ion Monopole Motor (SIMM)
See the Hyperphysics Electric Force Light Bulb Example website to understand the incredible power of the Coulomb Forces which is basically how the motor would work.

Electric forces

http://hyperphysics.phy-astr.gsu.edu › electric › elefor

See the LIGHT BULB EXAMPLE (900,000 metric tons !!!- 1 million tons in British units).

SIMM can be applied as the energy source for the SILA capacitive deionization CDI and the energy source for the centrifuge operation.

A possible material that can be used is carbon nanofoam that is used for capacitive deionization (CDI):

Carbon Nanofoam Paper
Aerogel and Nanofoams

Aerogel and Nanofoams

HTMS offers custom fabricated components and semi-finished stock from tungsten, refractory metals, ceramics, sap...

The SIMM motor would be the best thing for generating power 24/7 in a large building. Practically zero fuel costs. It would take the place of diesel engines.

Feasibility

BASIC PRINCIPLES
Solute Ion Linear Alignment SILA has been recognized in the following two ASME peer-reviewed papers:

1. ASME ES2010-90396-"Solute Ion Coulomb Force Monopole Motor and Solute Ion Linear Alignment Propulsion" (attached)

2. ASME IMECE-2016-65930 "Solute Ion Linear Alignment as the Energy Source to Address Aquifer Depletion Fresh Water Scarcity and Sea Level Rise" (attached)

The basic method of SILA is illustrated in these websites:

Solute Ion Monopole Motor and Solute Ion Linear Alignment Propulsion

http://contest.techbriefs.com/2014/entries/sustainable-technologies/4465
In ASME ES2010-90396, …Solute Ion Linear Alignment Propulsion, it was shown that 10E+16 ions of Na+ and Cl-, i.e.,

10E+9 ions over 1 meter long electrode x 10E+7 ions over 1 cm wide electrodes have a Coulomb force of 10E-12 Newtons between each pair of ions.

Since there are 10E+9 ions/meter, then

F = 10E-12 Newtons x 10E+9 pairs of ions = 10E-3 Newtons at end of the 1 meterb long electrode.

Using Stokes Law, $F=6\pi\eta rV$, r=ion radius, assume 5 x 10E-10 m

where r = 5 x 10E-10 m,
η = 10E-3 Newton-sec/m2 = 1 milliPa-sec/m2 = dynamic viscosity of water at 20 deg C.

Solving for V= 10E-3 Newton/[6π x 5 x 10E-10 m x 10E-3 Newton-sec/m2] = 10E+8 m/s,

Then propulsion force
Cross-sectional area A= electrode width x ion diameter =
(10E-2 m x 10E-9 m)

$F= \rho AV^2$=(10E+3 kg/m3)(10E-2 m x 10E-9 m)(10E+16 m2/s2) =
10E+8 Newtons. (about 10E+7 kg or 10E+4 METRIC TONS)
THIS IS AN ENORMOUS PROPULSION FORCE FOR SUCH A SMALL CROSS-SECTIONAL AREA

NOTE THAT THIS DOES NOT INCLUDE CONSIDERATION OF THE "CROSS-FORCE COEFFICIENT" WHICH ACCOUNTS FOR THE EFFECTS OF THE ADDITIONAL ADJACENT ROWS OF IONS OVER THE 1 CM WIDTH OF THE ELECTRODE, I.E.. 10E+7 ROWS.
IF IT IS ASSUMED THAT THE COEFFICIENT IS THEN ABOUT 10E+7, THEN THE FORCE AT THE END OF THE 1 M LONG ELECTRODE IS 10E-3 NEWTONS X 10E+7 OR 10E+4 NEWTONS.
EVEN IF WE ASSUME THAT THE 10E+4 NEWTONS ACTS OVER THE ENTIRE MASS OF IONS ON THE ELECTRODE SURFACE, I.E.,, 10E+16 IONS X (60 KG/(6 X 10E+26 IONS)),
OR 10E-9 KG,
THEN A= F/M = 10E+4 NEWTONS/ 10E-9 KG = 10E+13 M/SEC^2.
THIS IS AN ENORMOUS ACCELERATION.

In the 2016 paper, ASME IMECE-2016-65930 "Solute Ion Linear Alignment as the Energy Source to Address Aquifer Depletion Fresh Water Scarcity and Sea Level Rise" a calculation was presented of the amount of kinetic energy in the ion beams assuming electrode surfaces of 1 meter x 1 cm with 10E+9 (over the 1 meter length) x 10E+7 ions (over the 1 cm width) if the ions were traveling at 10E+8 m/s.

This comes out to about 5 MJ in an extremely small time period (in the range of micro or nanoseconds).

If we assume for example the electrode assemblies have a cross-section of 10 cm x 10 cm, then there would be 100 electrode assemblies in a square meter so the energy density (well over 1000 MW/square meter) compared to solar (1 KW/square meter) and wind (1-5 MW per very large area installation??) would be extremely large and therefore much more economical.
In addition, SILA and SIMM enable 24/7 operation and could be made also into portable units.

The energy consumption required to distill water from a liquid at 20ºC to a vapor at 100ºC is 2.6 MJ/liter.

TO THE SOLUTION PROVIDER'S KNOWLEDGE, THERE IS NO KNOWN COMPETING TECHNOLOGY THAT UTILIZES THE ELECTRIC FIELDS OF LIKE CHARGED SOLUTE IONS AS AN ENERGY SOURCE IN ACCORDANCE WITH COULOMB'S LAW (APPLIES BOTH TO SILA AND SIMM).

SILA and SIMM could enable large scale 24 hour per day/ 7 day per week power generating as opposed to power consuming desalination of the Persian Gulf and pumping fresh water inland long distances to compensate for the reduced flow of rivers such as the Colorado River in the US and in Europe and the Middle East such as the Euphrates River.

As an energy source and method of desalination, SILA can be summarized as follows:

Solute Ion Linear Alignment Flash Distillation And Power Generation

Wastewater Treatment and Biomass Decomposition via Solute ION Linear Alignment ION Beams

1 liter of seawater contains about 35 grams of salt or 0.035 kg.

If the SILA ion beams of Na+ and Cl- (for simplicity assume only NaCl is in the sea water) are accelerated to 10E+8 m/sec, neglecting relativistic effects, then the kinetic energy is

K.E.. = 1/2 (mV^2) = 1/2 (0.035 kg)(10E+8 m/sec)^2 =

2 x 10E+14 J or 2 x 10E+8 MJ = 2 x 10E+5 GJ = 2 x 10E+2 TJ

Since it requires about 2.6 MJ to boil 1 liter of water,

theoretically, the 35 grams of salt could boil

2 x 10E+8/2.6 or about 7x 10E+7 liters or 70,000,000 liters (70,000 m3).

APPLYING THE ABOVE RESULTS, THEORETICALLY, 35 GRAMS OF SALT COULD BOIL 70,000 M^3.
(1 CUBIC METER M^3 EQUALS 1 METRIC TON OR 2200 LBS OR 1000 LITERS OF WATER).

March 28, 2024

To Ninth Court of Appeals for the Federal Circuit
THE JAMES R. BROWNING COURTHOUSE
95 7TH STREET,
SAN FRANCISCO, CA 94103
Phone: (415) 355-8000
Hours: 8:30AM - 5:00PM

Chief Judge Mary Murguia

Questions@ca9.uscourts.gov

SUBJECT: DOCKET ??? MOTHERS FOR PEACE, FRIENDS OF THE EARTH, ENVIRONMENTAL WORKING GROUP VS. PACIFIC GAS AND ELECTRIC COMPANY AND US NUCLEAR REGULATORY COMMISSION - OPERATION OF DIABLO CANYON NUCLEAR POWER PLANT

Dear Chief Judge Murguia:

I am an engineer in New York who submitted the following Contact Form information separately to Mothers for Peace and Environmental Working Group on March 6, 2024.

I have received no response from either group.

As you can see, I strongly believe the Diablo Canyon Nuclear Power Plant can and should remain open to significantly alleviate climate change and to reduce very significantly the electric power rates to the consumers.

This is on the condition that the technology of Solute Ion Monopole Motor (SIMM) is developed and utilized to replace the existing Nuclear Steam Supply System as explained in the Contact Form.

The technology of Solute Ion Linear Alignment (SILA) and/or SIMM can also be used to very inexpensively desalinate seawater, thereby addressing another serious issue both in terms of cost and climate change.

Please note the additional information available in the attached Archive(1)(1) zip file which I could not submit with the Contact Forms.

There is another very serious issue caused by climate change that I will not go into here at this time.

I would kindly request that this information be submitted as an amicus curiae brief.

I do not have any resources to retain counsel to do this myself.

Given the extremely serious nature of climate change and the urgent need to retain all non-GHG producing power sources available, as well as to significantly improve the economy for the ratepayers, it is urgent that this matter be seriously considered by the Court.

Solar, wind and battery storage cannot do the job in time or meet the energy requirements of AI or semiconductor manufacturing, as well as those of agriculture.

Please advise as to the status of this very, very important matter.

Sincerely yours,
Anthony N. Fresco, M.S.M.E.
The Jolly Green Chlorine Machine
PO Box 116
Port Jefferson Station, New York 11776-0116

Tel. +1 631.455.0944

anfresco100@yahoo.com
afresco@jollygreenchlorinemachine.onmicrosoft.com
Isoluteu@gmail.com

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Contact Us

San Luis Obispo Mothers for Peace is a non-profit organization concerned with the local dangers involving the Diablo Canyon Nuclear Power Plant and with the dangers of nuclear power, weapons, and waste on national and global levels. Additionally, Mothers for Peace concerns itself with issues of peace, social justice, and a safe environment. Fill in this form to contact us.
Thanks for contacting us! We will get in touch with you shortly.

Have a question? Want to further connect with EWG's team? Let's connect! We can't wait to hear from you.

Please note: As EWG's office will be closed for the holidays, replies to question submissions may be delayed.

Status message

Your message has been sent.

MARCH 6, 2024

Mothers for Peace
San Luis Obispo County
California

VIA CONTACT FORM

Environmental Working Group
1250 I Street NW
Suite 1000
Washington, DC 20005

VIA CONTACT FORM

Friends of the Earth are a waste of time

SUBJECT: REPLACING STEAM TURBINE AT DIABLO CANYON WITH SOLUTE ION MONOPOLE MOTOR (SIMM) TO OPERATE GENERATOR AND STEAM SYSTEM WITH SOLUTE ION LINEAR ALIGNMENT (SILA) TO DESALINATE OCEAN WATER

Dear Mothers for Peace and Environmental Working Group

I saw this news article the other day about the law suit which your groups have filed to shut down Diablo Canyon.

March 4 2024

https://www.sanluisobispo.com/news/local/environment/article286285770.html

I think a much better for the planet approach would be to propose changes to the Diablo Canyon Nuclear Power Plant as follows.

As in any conventional power plant, such as an oil-fired, gas-fired or coal-fired power plant, Diablo Canyon has an AC Generator that is rotated by a Steam Turbine. The AC Generator then supplies electricity to the power grid.

The Steam Turbine is supplied steam from 3 Steam Generators which in turn are heated by the Reactor Coolant System that directly interfaces with the nuclear fuel in the reactor.

The technology of Solute Ion Monopole Motor (SIMM) is explained below. It is an extremely powerful method based on the salt in seawater or the just table salt dissolved in fresh water, as examples.

It is 24/7 renewable energy. No battery storage is required.

The Steam Turbine at Diablo Canyon can be replaced by SIMM to operate the Generator.

In addition, to further solve the world and California drought problems and climate change issues, Solute Ion Linear Alignment (SILA) can be utilized to provide a Power Generating Method of Desalination by Flash Distillation.

The brine that is created can be environmentally and economically returned to the ocean in a distributed manner such as through a long pipe of several miles in length with branch connections along the way so that the brine is not concentrated at those individual locations, thereby not harming marine life.

Alternatively, the fresh wastewater from the end users can be mixed with the brine to dilute it to normal salt concentrations before discharging into the ocean.

These approaches can be economically achieved by the incredible power of the SIMM and SILA.

I urge both of your groups to do something really significant to save the planet in time.

I can go into more detail about why the situation is even more urgent than people think but what I am proposing here should be enough to spark urgency.

Solar and wind and batteries are not capable of doing the job in time, are intermittent and expensive and generate a lot of waste materials, and in fact are facing a lot of opposition in the farmlands, with a lot of justification in my opinion.

I look forward to hearing from you as soon as possible regarding this urgent matter.

Sincerely yours,
Anthony N. Fresco, M.S.M.E.
PO Box 116
Port Jefferson Station, New York
11776-0116

anfresco100@yahoo.com
isoluteu@gmail.com

Tel. 1 631.455.0944

MARCH 5, 2024

Embassy of Mexico to the United States

1911 Pennsylvania Avenue NW
Washington, DC 20006

202 728 1600 / 1628 FAX

mexembusa@sre.gob.mx

consejeria.sagarpausa@verizon.net

Secretariat of Agricultural and Rural Development

Name

Position

Phone

Email

Carlos Vázquez

Minister

202-728-1723

consejeria.sagarpausa@verizon.net

SUBJECT: URGENT - SOLUTE ION LINEAR ALIGNMENT (SILA) FLASH DISTILLATION DESALINATION AND POWER GENERATION FOR PUMPING VIA SOLUTE ION COULOMB FORCE MONOPOLE MOTOR (SIMM) TO PROVIDE FRESH WATER TO MEXICO CITY

Dear Minister Vazquez and the Science Attache

I have seen this very important story about the drastic water supply situation in Mexico City

https://www.cbsnews.com/news/mexico-city-nearly-out-of-water-many-go-days-if-not-weeks-without-it/

I know that Mexico City is inland near the center of Mexico away from the Atlantic and Pacific Oceans and depends on underground fresh water aquifers for water supply.

I do not know if there are any brackish aquifers in the area.

I must call to your attention the technology of solute ion linear alignment (SILA) which can be the only power generating method of desalination.

The solute ion monopole motor (SIMM) can be utilized to pump water either to the surface from brackish aquifers or long distance from the Atlantic and Pacific Oceans.

I look very much forward to hearing from the Mexican Government very soon regarding this urgent matter for the 22 million persons affected by this very serious water crisis.

Sincerely yours,
Anthony N. Fresco, M.S.M.E.
PO Box 116

Port Jefferson Station, New York
11776-0116 USA

Tel. 1 631 455 0944

anfresco100@yahoo.com
isoluteu@gmail.com

DESCRIPTION OF THE TECHNOLOGY:

The following is a 4 minute explanation by the proposer of Solute Ion Linear Alignment (SILA) and Monopole Motor (SIMM)

https://www.youtube.com/watch?v=h3dnEVOO4Z8

The following websites also illustrate how SILA and SIMM can be applied in numerous very important applications:

The 2012 website provides a basic explanation of both SILA and SIMM: Solute Ion Coulomb Force Monopole Motor and Solute Ion Linear Alignment Propulsion

http://contest.techbriefs.com/2023/entries/sustainable-technology/12327

http://contest.techbriefs.com/2022/entries/sustainable-technologies-future-energy/11706

http://contest.techbriefs.com/2021/entries/Electronics-Sensors-IoT/11174

http://contest.techbriefs.com/2020/entries/medical/10431

http://contest.techbriefs.com/2014/entries/sustainable-technologies/4465

http://contest.techbriefs.com/2012/entries/sustainable-technologies/2589

1 liter of seawater contains about 35 grams of salt or 0.035 kg.

If the SILA ion beams of Na+ and Cl- (for simplicity assume only NaCl is in the sea water) are accelerated to 10E+8 m/sec, neglecting relativistic effects, then the kinetic energy is

K.E.. = 1/2 (mV^2) = 1/2 (0.035 kg)(10E+8 m/sec)^2 =

2 x 10E+14 J or 2 x 10E+8 MJ = 2 x 10E+5 GJ = 2 x 10E+2 TJ

Since it requires about 2.6 MJ to boil 1 liter of water,

theoretically, the 35 grams of salt could boil

2 x 10E+8/2.6 or about 7x 10E+7 liters or 70,000,000 liters (70,000 m3).

APPLYING THE ABOVE RESULTS, THEORETICALLY, 35 GRAMS OF SALT COULD BOIL 70,000 M^3.

(1 CUBIC METER M^3 EQUALS 1 METRIC TON OR 2200 LBS OR 1000 LITERS OF WATER).

To summarize, the technology involves the following:

1. A MOTOR POWERED BY THE SALT IN SALT WATER [SOLUTE ION MONOPOLE MOTOR (SIMM)].

2. ION BEAMS WHICH ARE VERY HIGH SPEED JETS THAT ARE FORMED ALSO BY THE SALT IN SALT WATER

[SOLUTE ION LINEAR ALIGNMENT (SILA) ION BEAMS].

APPLICATIONS FOR THIS TECHNOLOGY ARE AS FOLLOWS (DETAILS OMITTED):

1. Very Powerful Power Generation and Seawater Desalination Method.

(Note: As far as I am aware, there is no other method of desalination that can produce energy rather than consume it. Gas, oil, coal and nuclear power plants make energy available by boiling water but they cannot do this from seawater or brackish water. They have to continuously recycle the same distilled water over and over again).

2. Method of Separating Water H2O Into Hydrogen H2 and Oxygen O2.

For 1 and 2, see

http://contest.techbriefs.com/2014/entries/sustainable-technologies/4465

3. Wastewater Treatment and Biomass Decomposition Via SILA Ion Beams

For 3, see

Wastewater Treatment and Biomass Decomposition via Solute ION Linear Alignment ION Beams

Wastewater Treatment and Biomass Decomposition via Solute ION Linear Ali...

Anthony Fresco

The Create the Future Design Contest was launched in 2002 by the publishers of NASA Tech Briefs magazine to help...

4. Heavy Ion Beam Cancer Therapy

5. COVID-19 and Other Pathogens Sterilization by Generating UV and Other Light Rays

For 4 and 5, see

http://contest.techbriefs.com/2020/entries/medical/10431

This UV light could generate new pharmaceutical compounds that might be utilized to accumulate in tumors and be subject receiving the light or the ion beams that could then destroy the tumors in a process similar to what is called boron neutron capture therapy BNCT.

6. Greatly Reduced Size and Cost Particle Accelerator for Scientific and Industrial Applications

.7. Propulsion and Motor for Marine, Submarine, Aeronautical, Space, Rail, Automotive, Trucking and Agricultural and Industrial Equipment (including Forklifts) and Construction Applications

For 7 (also 6), see

http://contest.techbriefs.com/2012/entries/sustainable-technologies/2589

8. Exothermic and Endothermic Nuclear Fusion for Rare Element Synthesis

(Note: Exothermic Nuclear Fusion, that is, heat is generated out by a nuclear fusion reaction, is what has been attempted for the last 70 years to replace existing methods of power generation.

This could provide energy requirements for AI and Bitcoin.

Endothermic Nuclear Fusion, that is, heat must be input for the nuclear fusion reaction to occur, has rarely been utilized because of the need to utilize current technology very expensive and power consuming particle accelerators. It can be of great importance to join together different elements to form a heavier element that is a rare earth element that is of importance for semiconductor design.)

See Solute ION Linear Alignment (SILA) Particle Accelerator for AI and Bitcoin Energy Requirements, Rare Earth Production et al

Solute ION Linear Alignment (SILA) Particle Accelerator for AI and Bitco...

Anthony Fresco

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LENR Explanations: Intermittent, Haphazard Deuterium Ion Linear Alignment?

ZPEnergy.comhttps://zpenergy.com/modules.php?name=News&file=article&sid=3833

9. Spinoff Economic Boom in Agriculture, Water Transmission, Construction, Housing, etc.

The real financial gains from this technology should very well be the enormous gains to be realized by investing in the spinoff in view of the increasing global population now at 8 billion and projected to reach 9 or 10 billion by 2050 with great demands for food and water, power generation and housing, cell phones, computers, etc.
The equipment could be rented out to users rather than sold.

10. Only Practical Solution to Worldwide Droughts and Ongoing and Projected Famine and Other Effects of Climate Change Such As Tropical Storms, Hurricanes and Tornadoes

PUBLISHED TECHNICAL PAPERS:
ASME ES2010-90396-"Solute Ion Coulomb Force Monopole Motor and Solute Ion Linear Alignment Propulsion"

https://www.researchgate.net/publication/267492677_Solute_Ion_Coulomb_Force_Monopole_Motor_and_Solute_Ion_Linear_Alignment_Propulsion

BEST DRAWINGS SHOWING SIMM DESIGN:

SPESIF 2012-Elsevier-"Dielectric Analysis for Torque of Solute Ion Coulomb Force Monopole Motor"

(full publication available online here)

Dielectric Analysis for Torque of a Solute Ion Coulomb Force Monopole Motor

Dielectric Analysis for Torque of a Solute Ion Coulomb Force Monopole Motor - ScienceDirect
Physics Procedia 38 (2012) 116 â€“ 135 1875-3892 2012 Published by Elsevier B.V. Selection and/or peer-review under responsibility of the Integrity Research Institute. doi: 10.1016/j.phpro.2012.08.017 Space, Propulsion & Energy Sciences International Forum-2012 Dielectric analysis for torque of a solute ion Coulomb force monopole motor Anthony N. Fresco* Member , American Society of ...
www.sciencedirect.com

ASME IMECE-2016-65930 "Solute Ion Linear Alignment as the Energy Source to Address Aquifer Depletion Fresh Water Scarcity and Sea Level Rise" (Attached)
https://asmedigitalcollection.asme.org/IMECE/proceedings-abstract/IMECE2016/50596/261799

US Patent 8,925,294 January 6, 2015

"Solute Ion Coulomb Force Acceleration and Electric Field Monopole Passive Voltage Source"

US8925294B2 - Solute ion coulomb force accelaration and electric field monopole passive voltage source - Google Patents

US8925294B2 - Solute ion coulomb force accelaration and electric field m...

At least one electrode assembly is configured to enable like charged ions to convert potential energy of the lik...

LENR Explanations: Intermittent, Haphazard Deuterium Ion Linear Alignment?

ZPEnergy.comhttps://zpenergy.com/modules.php?name=News&file=article&sid=3833

Park Systems NanoScientific Symposium - October 14-15, 2020 US See Poster No. 6

https://live2.parksystems.com/home-login/

Proceedings of the 57th Annual Meeting of the Particle Therapy Cooperative Group (PTCOG): 21-26 May 2018, Hosted by Cincinnati Children's and the University of Cincinnati, part of the Cincinnati Cancer Center, Cincinnati, Ohio, USA
P 066: Solute Ion Linear Alignment (SILA) Particle Acceleration to Replace 200+ Ton Synchrotron Magnets for Particle Therapy and Onsite Power Generation

A.N. Fresco1

1Anthony N Fresco, Solute Ion Linear Alignment Acceleration, Melville New York, USA

Solute ion linear alignment propulsion was presented in ASME ES2010-90396 “Solute Ion Coulomb Force Monopole Motor and Solute Ion Linear Alignment Propulsion”. Solute ion linear alignment (SILA) is a process in which potential energy of the electrostatic fields of like charged solute ions is converted to kinetic energy and is based on the process of capacitive deionization (CDI). See http://contest.techbriefs.com/2014/entries/sustainable-technologies/4465

In ASME ES2010-90396, it was shown that 10E+16 ions of Na+ and Cl-, i.e., could propel themselves under a force of 10E+8 Newtons and a velocity of about 10E+8 m/second.

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Therefore, dramatically reduced construction costs of current day particle therapy facilities compared to 200+ ton magnets and transformation from operating power consumption to onsite power generation may be achieved by SILA, which can be applied to particle therapy in several ways. For example, gaseous CO2 can be ionized by bombardment with Na+ and Cl- between electrode plates having a voltage across so as to separate the C and O2 ions to accumulate at the electrode surfaces. Then the ion linear alignment principle could be applied in the same way to create beams of C and O ions.

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Particle Therapy Cooperative Group PTCOG59-2021 Abstract PTC-2192 - Poster P005 Physics-Beam Delivery and Nozzle Design - "Solute Ion Linear Alignment Heavy Ion Beam Cancer Therapy Via CO2 in H2O Forming H+ and HCO3- Ion Beams"

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See the Hyperphysics Electric Force Light Bulb Example website to understand the incredible power of the Coulomb Forces which is basically how the motor would work.

Electric forces

http://hyperphysics.phy-astr.gsu.edu › electric › elefor

See the LIGHT BULB EXAMPLE (900,000 metric tons !!!- 1 million tons in British units).

SIMM can be applied as the energy source for the SILA capacitive deionization CDI and the energy source for the centrifuge operation.

A possible material that can be used is carbon nanofoam that is used for capacitive deionization (CDI):

Carbon Nanofoam Paper
Aerogel and Nanofoams

Aerogel and Nanofoams

HTMS offers custom fabricated components and semi-finished stock from tungsten, refractory metals, ceramics, sap...

The SIMM motor would be the best thing for generating power 24/7 in a large building. Practically zero fuel costs. It would take the place of diesel engines.

Feasibility

BASIC PRINCIPLES
Solute Ion Linear Alignment SILA has been recognized in the following two ASME peer-reviewed papers:

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F = 10E-12 Newtons x 10E+9 pairs of ions = 10E-3 Newtons at end of the 1 meterb long electrode.

Using Stokes Law, $F=6\pi\eta rV$, r=ion radius, assume 5 x 10E-10 m

where r = 5 x 10E-10 m,
η = 10E-3 Newton-sec/m2 = 1 milliPa-sec/m2 = dynamic viscosity of water at 20 deg C.

Solving for V= 10E-3 Newton/[6π x 5 x 10E-10 m x 10E-3 Newton-sec/m2] = 10E+8 m/s,

Then propulsion force
Cross-sectional area A= electrode width x ion diameter =
(10E-2 m x 10E-9 m)

$F= \rho AV^2$=(10E+3 kg/m3)(10E-2 m x 10E-9 m)(10E+16 m2/s2) =
10E+8 Newtons. (about 10E+7 kg or 10E+4 METRIC TONS)
THIS IS AN ENORMOUS PROPULSION FORCE FOR SUCH A SMALL CROSS-SECTIONAL AREA

NOTE THAT THIS DOES NOT INCLUDE CONSIDERATION OF THE "CROSS-FORCE COEFFICIENT" WHICH ACCOUNTS FOR THE EFFECTS OF THE ADDITIONAL ADJACENT ROWS OF IONS OVER THE 1 CM WIDTH OF THE ELECTRODE, I.E.. 10E+7

ROWS.
IF IT IS ASSUMED THAT THE COEFFICIENT IS THEN ABOUT 10E+7, THEN THE FORCE AT THE END OF THE 1 M LONG ELECTRODE IS 10E-3 NEWTONS X 10E+7 OR 10E+4 NEWTONS.
EVEN IF WE ASSUME THAT THE 10E+4 NEWTONS ACTS OVER THE ENTIRE MASS OF IONS ON THE ELECTRODE SURFACE, I.E.,, 10E+16 IONS X (60 KG/(6 X 10E+26 IONS)),
OR 10E-9 KG,
THEN A= F/M = 10E+4 NEWTONS/ 10E-9 KG = 10E+13 M/SEC^2.
THIS IS AN ENORMOUS ACCELERATION.

In the 2016 paper, ASME IMECE-2016-65930 "Solute Ion Linear Alignment as the Energy Source to Address Aquifer Depletion Fresh Water Scarcity and Sea Level Rise" a calculation was presented of the amount of kinetic energy in the ion beams assuming electrode surfaces of 1 meter x 1 cm with 10E+9 (over the 1 meter length) x 10E+7 ions (over the 1 cm width) if the ions were traveling at 10E+8 m/s.

This comes out to about 5 MJ in an extremely small time period (in the range of micro or nanoseconds).

If we assume for example the electrode assemblies have a cross-section of 10 cm x 10 cm, then there would be 100 electrode assemblies in a square meter so the energy density (well over 1000 MW/square meter) compared to solar (1 KW/square meter) and wind (1-5 MW per very large area installation??) would be extremely large and therefore much more economical.
In addition, SILA and SIMM enable 24/7 operation and could be made also into portable units.

The energy consumption required to distill water from a liquid at 20ºC to a vapor at 100ºC is 2.6 MJ/liter.

TO THE SOLUTION PROVIDER'S KNOWLEDGE, THERE IS NO KNOWN COMPETING TECHNOLOGY THAT UTILIZES THE ELECTRIC FIELDS OF LIKE CHARGED SOLUTE IONS AS AN ENERGY SOURCE IN ACCORDANCE WITH COULOMB'S LAW (APPLIES BOTH TO SILA AND SIMM).

SILA and SIMM could enable large scale 24 hour per day/ 7 day per week power generating as opposed to power consuming desalination of the Persian Gulf and pumping fresh water inland long distances to compensate for the reduced flow of rivers such as the Colorado River in the US and in Europe and the Middle East such as the Euphrates River.

As an energy source and method of desalination, SILA can be summarized as follows:

Wastewater Treatment and Biomass Decomposition via Solute ION Linear Alignment ION Beams

1 liter of seawater contains about 35 grams of salt or 0.035 kg.

If the SILA ion beams of Na+ and Cl- (for simplicity assume only NaCl is in the sea water) are accelerated to 10E+8 m/sec, neglecting relativistic effects, then the kinetic energy is

K.E.. = 1/2 (mV^2) = 1/2 (0.035 kg)(10E+8 m/sec)^2 =

2 x 10E+14 J or 2 x 10E+8 MJ = 2 x 10E+5 GJ = 2 x 10E+2 TJ

Since it requires about 2.6 MJ to boil 1 liter of water,

theoretically, the 35 grams of salt could boil

2 x 10E+8/2.6 or about 7x 10E+7 liters or 70,000,000 liters (70,000 m3).

APPLYING THE ABOVE RESULTS, THEORETICALLY, 35 GRAMS OF SALT COULD BOIL 70,000 M^3.

(1 CUBIC METER M^3 EQUALS 1 METRIC TON OR 2200 LBS OR 1000 LITERS OF WATER).