Patent No NL1031363 by Arie DeGues

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Heat generator.

Extract
A method and apparatus, with which the elements Krypton and xenon are produced by means of electron discharge in a reactor, in which by nuclear fusion of Argon with itself, possibly with the addition of small percentages of hydrogen and neon, as a result of occurring 'mass defects', photons are released, generally known as wavelengths> 500 nanometers, which primarily means warmth, being the energy required for the process execution is obtained by a portion of the heat, or using Infra -red photo-cells, or by the application of the "stacks" of bi-metals "electret, into electrical energy to be converted.

T**opic:**
Nuclear fusion processes, among noble gases, or isotopes thereof, is established and maintained because of pulsed electron discharge within a reactor space through the gas (es), and plasma "," produce "mass defects" and deliver thus photons, which manifest themselves as heat, or if converted electric energy.
Heat (photons with energies in the Infra-Red) is IR radiation, and also Convective, freedom, or forced; Considering that the production of electrical energy, in the context of this invention. only need to satisfy the requisite for the start and continuation of said fusion Procos (es), this need can be met by the application of any of the following techniques:
(a) photo-cells composed of selective semi-conductor combinations.
(b) bi-metal cascades' electrets ** between.
(c) thermodynamic cycles, which generate mechanical energy, which is then converted into electric energy.

Summary.
The atomic numbers of the elements; Ar, Kr and Xe, (noble gases), respectively:
13, 36 and 54. This gave rise to the idea that a Kr-core sometimes could consist of 2-cores Ar and Xe that sometimes 3 x Ar could be. Studies with respect to the core structures of said elements, as are constituted in the Aether *** confirmed these suspicions, wherein the element Ar emerges a basic spatial constitution ', which form a tetra-hydraal has.
The element thus shows two Kr and Xe three of said core-constitutions, which are then attached to each other.
The linkages between the constitutive parts are made of the so-called 'double-neutron' type.
if fusion of Ar, or isotope of Ar with themselves, or with an isotope, the element Kr, or an isotope thereof, produces, or the element already, resulting Kr Xe, or isotope thereof, turn, this results through the operation of the physical mechanism, that of "double neutron" has become, said binding that for some isotopes, which may arise, there are constitutions, which have a lower energy compared to the sum of the energies of the components, who first participated in the response level.
The "mass defects", which occur, translating into photon energy, which in general will have a greater than 500 nm, wavelengths depending upon what type of reaction (s') takes place (it), which in't so generally means delivery of heat.
The production of heat is the objective of this invention, however, for the functioning of these fusion technology is electrical energy is needed, which can be obtained through certain transformation techniques from the energy produced photon energy:
(a) * Ga / Ge -> Axis, or Ga / Sb photo-volts. cells; these already exist and are manufactured by JX

Crystals Inc., Issaquah, WA, 98027, USA (direct conversion of * near 'infrared and what' visible 'in DC electricity There is a lot of research in this area, especially because sunlight. for 41% of infrared exists.
(b) Inventor has discovered a method whereby certain "electret" ** "materials can be used together with bi-metal combinations in 'stacks'. possibly with permanent magnetic fields added thereto, guidelines, or vortex tubes, which, by the said 'piles' are pro-jected, can convert DC electricity. which heat energy directly
(c) Heat at aanzichte of sufficient temperature of the immediate environment, can be transformed, which can be converted into electrical energy, by means of a generator, AC or DC. then converted back into mechanical energy by means of a number of conventional thermodynamic cycle processes,

Description

(a) (Theory)
Theoretical Background of the technology of the present invention is identical to a description thereof, as recorded in Patent Application, No. 1030908 entitled "Electric energy from fusion of Noble Gases. This Patent Application is different from the said application, No 1030908 in that, the objective of the technology described herein, "heat", and that the generation of electric energy is limited to what is necessary for the process-state of this technology.
In this connection, the applications of the techniques, such as those mentioned under (a) and (b) in the "Summary" of the present invention is desirable, and is usually sufficient for the energy requirement for the operation of the equipment, such as those described in this invention.
The thermodynamic cycle processes such as those mentioned are under (c) in the "Summary" are much more expensive to implement and are desirable only if a greater ability to power the primary objective.
(b) Process Description
The process liner takes place in a reactor space, in which a cathode and anode are included, at a distance from one another, between which a specific time-dependent electro-magnetic field is placed. Between cathode and anode may be a filament can be placed, which improves the procedure. The glow plug must have a diameter which is significantly larger than the diameter of the vortex-visual 'oogwal', which occurs in the gas / plasma; (the material of the glow plug, it is preferably: W).
The electrical energization of this coil is inductive, which is made possible by the presence of the time-varying electromagnetic field, which is set. Between said cathode and anode.
The Procedure of the apparatus of this invention differs from the process-liners, such as those described in patent application No. 1030908 in the sense that the location where cooling process takes place, the same as where the fusion reaction takes place and heat is generated.
There is no thermodynamic cycle type with expansion by heating in a particular location and contraction as a result of cooling in another.
The process liner takes place at a higher-than the initial pressure, which is recovered again after some time after switching off of the electro-magnetic field,
On the duration of the reduction in the number of atoms present (Ar 2 - Vomwn Kr 1 atom) in the reactor, will exhibit a lower initial pressure.
Promotes find the place of further transmutation in the direction of the addition of Xe He (up to 15%) (See patent application, No. 1030908 for the reaction) at the same time with the fusing of Ar with itself.
The factors that influence the implementation process are:
a) density / temperature of gas / plasma, b) the frequency and shape of the pulses,
c) distance russians the electrodes, d) the presence of a filament, e) voltage. It should be noted that higher voltage does not always give better fusion results!
There is an Optimate voltage. The plasma-fusion processes, with which the inventor is known: eg

H, and with several nuclear transmutation processes, have always shown that fusion events then take place if a strong vortex between cathode and anode.
A strong vortex has a large 'oogwal' speed (tangential) and low helicity, eg <8%. This means that the distance traveled is very much longer because of the charged particles than the distance between cathode and anode.
For example, with a "oogwal 'diameter of 1 cm and a distance of 20 cm between the cathode and anode is: ≈ l2 x 3 x 20 = 720 x. Like-charged particles,
which move in parallel jobs in a plasma, attract each other with the Lorentz force (analogy: Making DC parallel wires going in the same direction).
The longer the distance traveled, the more chance of fusion events. As with the preferred voltage, there is a preferred frequency; this is determined by the mass of the Ar atoms, the distance between the electrodes. the voltage, the density of the gas / plasma. It has been found that at relatively high pressures in the gas / plasma of Ar may be, when compared with H worked.
A typical vortex setting in hydrogen plasma, at 16 cm distance between the electrodes: 0.05 bar, 150 ° C, from 2300 to 2600 volts; Argon plasma at the same distance between electrodes: 1 bar, 300 ° C, 3000-3300 volts.
(both cases: no ignition coil, clean electrodes with cone shaped).
With a laboratory device, such as is used by the inventor, it has been found that the consumption of electrical energy in the process of this invention,
after the Ar plasma at least 240 "C is reached: a current of 8-12 mArnp required, the Vortex remains stable; and there is then a consumption of the 30 Watt. A total energy output of 100-150 watts (infrared / red-violet light) is quite easily accessible.
From this energy production is almost half in order to add to the techniques already mentioned, under (a) and (b) the required 30 watts net to the reactor;
the yield loss herein is not loss, it means all the heat generated by profit. As described here, there is no heat energy input energy costs, excluding that Ar is very low (and possibly some H) consumed over the longer duration.
Ar is very cheap; a bottle of high pressure takes :: Euro 20; a single load of Ar does not cost more than 1 cent; So, free and safe heating, has become possible.
The regeneration of the electrical energy necessary for the operation of the process:
Technique (a): The Ga / Ge - As, or Ga / Sb 1 cells are produced by! JX Crystals Inc., Issaquash, WA, 98027, USA. These cells are at the outside wall of the reactor,
any of borosilicate or better, quartz, exists, and arranged in series, parallel as well as in groups, connected to each other, with which electric energy at the right voltage, for example 12 V + of a battery, or a large capacitor can be temporarily stored.
Engineering (b): "StapeI (s) 'of certain bi-metal combinations in layers with specific" electret "material (s) between them, are extremely sensitive to the conversion of thermal energy into DC electricity, high potentials are now easily achievable, but the currents are relatively low.
Nevertheless, it is a reasonable conversion efficiency with the current state of this technology possible, especially since the running off the heat in the context of this invention means no loss. A patent application for: conversion of heat into electrical energy using bi-metal / 'electret' combinations in preparation.
The electric energy production in this technique is strongly temperature dependent and have a "more than quadratic function.
To set up the required pulsed high voltage between cathode and anode, the temporarily stored DC electrical energy is converted into an alternating current of the blokspannings type with a frequency regulation integrally coupled thereto (via a "inverter" this is done by the application of digital waveform trucks, which m.b.v. Computer + special software is realized). The desired high-voltage signal between the cathode and anode set. Via a subsequent line transformer and a transformer-on, followed by half-or full (Wheatstone-bridge) the same direction.
It has also been found that can not be worked for the Procedure with an alternating current between the electrodes; the process' implementation only works with pulsed DC, due to the fact that there is

a direction of rotation of the vortex, which is associated with the departure of electrons from a cathode. The direction of rotation of the vortex is defined by the helical movement of the electrons in the gas / plasma. If, with the speed of the frequency, cathode and anode of place would be switched with, there would be another direction of the vortex should be the same frequency. This is possible because of the irnpulsmoment that already has all of the vortex in the reactor, with the co-rotating gas / plasma.

(c) Description of the figures

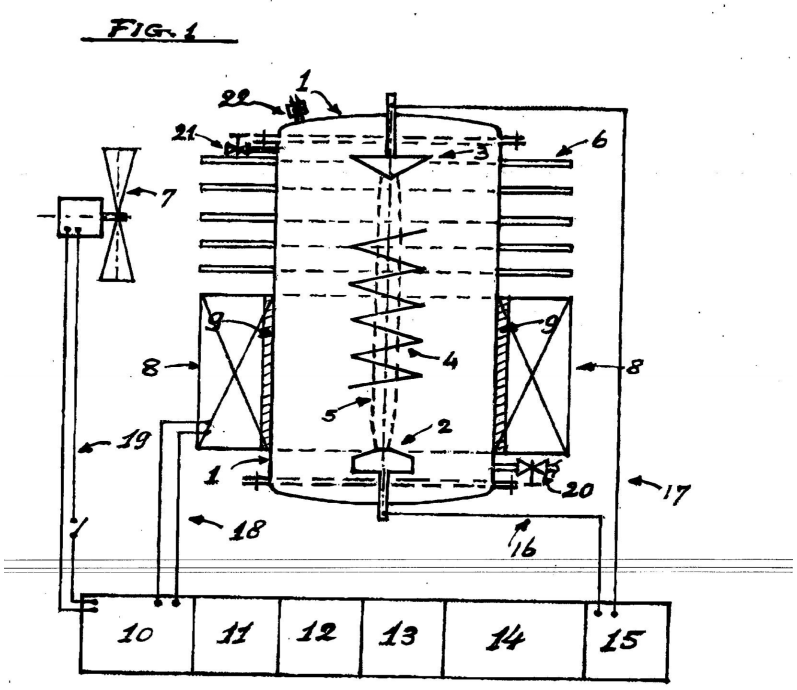


Figure 1 shows the v.n.l. heat-producing reactor, as well as the electric circuit.
Figure 1:
The reactor is indicated with (1); the cathode (2); the anode (3); the glow coil, (4); self-aligning vortex. (5); cooling fins (6); any fan, (7); 'bi-metals' electret' in between 'piles', (8); IR photo volts. cells (9); battery or big capacitor (10); inverter (DC converter to certain AC), (1 1); waveform and frequency structure i, which is projected to inverter (12); control transformer, (13): on-transformer (14); rectification. (15); thread to the cathode, (16); thread to the anode (17); DC power wires, or 'piles' bi-metal with * electret' between them, or IR photo volts. cells to battery (10) guiding (1 8); wiring with schakelaarter drive of any fan (for forced convection), (19); gas inlet valve (20): vent valve, (2l); protection against high pressure (22).

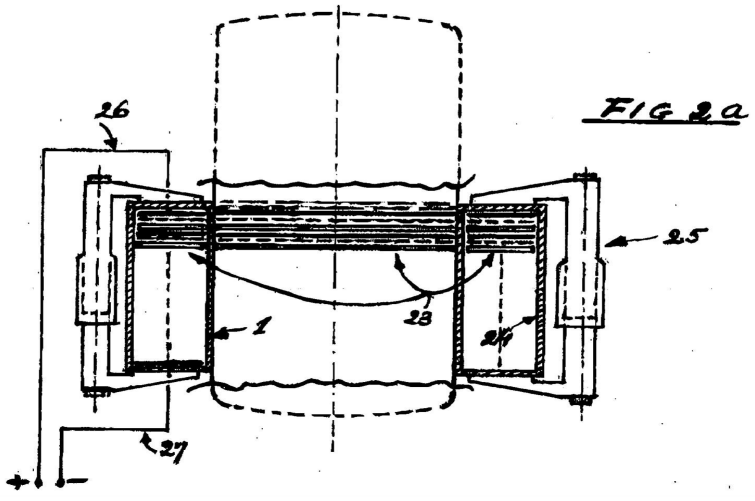
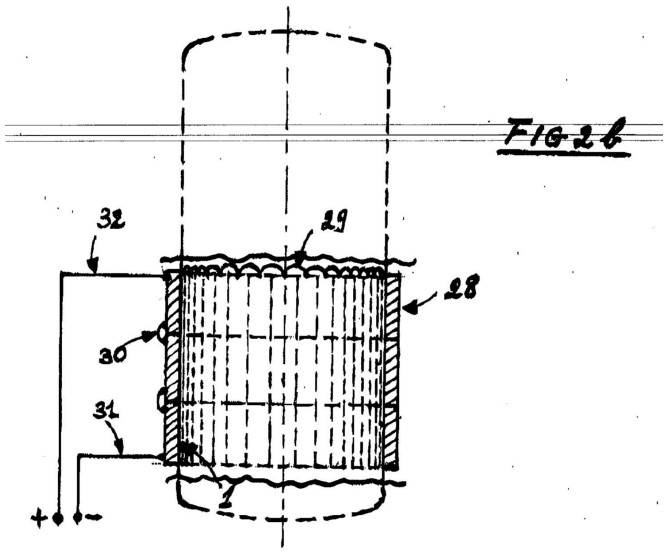


Figure 2a shows the reactor is carried out with IR photo-volt cells,Figure 2a:
'Pile' of circle-shaped very thin plates, arranged around reactor (1), consisting of "sandwiches" of three materials, two of which the exit work for free electrons is significantly different, and a, of which, which is made up of so-called "electret" is, (23), concentric box-like structure, which are in intimate abutting against the outside of the reactor, comprised of materials, which have good "heat-conducting, but otherwise it is a good dielectric material, (24), clamp, which can be tightened (at least six terminals must be provided, so that an intimate contact of the materials in the "sandwiches", as well as between the "sandwiches" between themselves, a fact about the periphery of box (24)), (25); + Wire, which is connected to one of the outermost plates of the "stack", (26); wire-connected to the other outer plate, (27).



and Figure 2b shows implementation with bi-metal-> electret stacks, to the reactor outer wall.
Figure 2b: Infra-red photo volts. cells (eg, 12 cm x 3 cm, each) at the entire periphery of the exterior of the reactor (1), which comprise for example Ga / Sb (28); parallel compounds, (29); in-series compounds, (30); - Wire, (31); + Wire (32), both to charge battery (10).

(d) Operation

It has been found that the fusion process is greatly enhanced by the application of glow-coil (4). Thereby, a long vortex as possible; also operates the ignition coil as a stimulant "guidance" of vortex (5).
Also, it is sufficient, if the incandescent coil is used with lower voltages between cathode and ancde; then determine the distance between the filament coil and cathode, as well as the distance between the filament coil and the anode 'ontsteek' and operating voltages. A preferred mode of operation is: an incandescent spiral of at least 10 cm.
density of 2-4 Bar, 3,300-3,800 volts voltage, a temperature of 300 -400 ° C, can then be expected, a fan (7), which provides forced convection on the cooling fins (6), it is necessary at this temperature and pressure . Process control is possible by means of the adjustability of the number of pulses per second, and also by control of the cooling fan.
*) "Plasma", where used in this request, as the 'free' electrons (in the Mixture of gases present) which go to the anode from the cathode.
In addition, there will also still be a Star excited atoms occur in the gas-Mixture.
**) "Electret" is a piece of material, wherein a preferred orientation of a part of the molecules or complexes of molecules / atoms occurs, whereby these ends to the + and - show loads.
By first piecing at a temperature of the material within an electro-static field is not far below the melting or disintegration temperature, it is possible to this "loaded" molecules, or complexes of molecules / atoms in parallel with the electric field lines to orient. By cooling, with the field 'on', this orientation permanently.

An "electret" is in an electric field which is a permanent magnet in an electro-magnetic field. Examples: bees wax, camauba aimed Teflon, etc.
"'*') Aether is the non-material fluid from the fluid Continuum with which our Universe is filled, albeit with different density by location. The "Aether 'is: a) homogeneous, b) connected, c) super-fluid, d) is compressible.

Conclusions.

1. method, which, by fusion of Ar with itself or with isotopes of Ar, possibly with additions of He and Ne, Kr and Xe elements or isotopes. are formed by means of electron-discharges in a closed reactor cavity, occurring as a result of "mass defect", photons are released, generally known as wavelengths> 500 nm, which is "Heat" means, in which the necessary electrical energy for the process liner is obtained by a part of the released heat, or with the aid of infra-red photo-cells, or by the use of staple (s) "of bi-metal-with" electrets "into electrical energy to convert.

2.A method, as in (1), wherein said electron-discharges are established and maintained between a cathode and a reactor in the said.

3.A method, as in (1) and (2), wherein a filament coil is arranged between said cathode and anode, or that of said outer reactor is energized. or by means of induction, created due to the electro-magnetic field between cathode and anode.

4.A method, as in any of the preceding claims, wherein a portion of said heat produced, is discharged by means of on the outside of said reactor, cooling fins mounted.

5.A method, as in (4), wherein said removal of heat is increased by means of ventilation means around cooling said ribs.

6. Method A, as in (5), wherein said ventilation means are continuously variable speed, for the purpose of the process-lining.

7.A method, as in any of the preceding claims, wherein said gas-fill and air vents and pressure-protection means are arranged on said reactor.

8.A method as in (7), wherein said reactor is filled with Ar gas.

9.A method, as in (7) and (8), wherein in addition to the filling of the said reactor with Ar gas, additionally, a small percentage is added. To He

10.A method, as in (7), (8) and (9), wherein in addition to the filling of the said reactor with Ar gas, if necessary with the addition of said small percentage to He gas, additionally, also a small percentage of the Ne gas is added to our catalog.

11.A method, as in any of the preceding claims, wherein an electro-magnetic (EM) field is created between said cathode and anode with a specific time-characteristic.

12.A method, as in (7), wherein said (EM) field-time-characteristic as steep as possible gradient start voltage exhibits.

13.A method, as in (1) T / m (4), (7) and (8), wherein the frequency of said (EM) field-time characteristic is continuously variably, to regulate the process-lining.

14.A method, as in any of the preceding claims, wherein for the generation of the electrical current

(DC) energy required for the process liner, infra-red photo-cells are provided over the entire circumference at the outer side of said reactor.

15.A method, as in (14), wherein said cells Infra-red photo-> consist of any of the following combinations of elements: Ga / Ge - As, Ga / Sb, Ga / In / P, Ga / In / As .

16.A method, as in any of the preceding claims, wherein for the generation of the electrical current (DC) energy required for the process liner, a stack (s) "of thin sheet materials with substantially different 'exit-working" - potentials for "free" electrons, including a "electret" to the other plate between 'sandwiched', are arranged around said reactor.

17.A method, as in (16), wherein said sheet materials are metals, such as those occur in the "Volta," or in the "Pfaff sequencing, of Zn to Pd.

18.A method, as in (16) and (17), said "electret" sheet material consists of organic chemical molecules, and the ends thereof and exhibiting charge such molecules being pennanent 'perpendicular' directed at the surface of the plate.

19.A method, as in (16), (17) and (18), wherein said "electret" plates are so arranged that their permanent electro-static direction corresponds to the direction of the net potential of the said bi-metal as such.

20.A method, as in (16) tim (19), referred to as 'electrct' material being: Teflon, or any other related thereto with simulaire organic chemical properties, or bees wax or camauba wax (low temp.limiet)

21.Device, which by fusion of Ar with itself or with isotopes of Ar, possibly with additions of He and Ne, Kr and Xe the elements. or isotopes thereof, may be formed by means of electron discharge in a reactor in which, as a result of occurrence of 'mass defect', photons can be released, in general wavelengths> 500 nano-meters, which is "heat" means, in which the necessary electrical energy for the process liner is obtained by a part of the released heat, or with the aid of infra-red photo-cells, or with the aid of staple (s) "of bi-metals in between" electrets "in electric (DC) energy to convert.

22.-Device as in (21), wherein the reactor, outside the locking covers, consists of a material which has a high transmissivity for Wavelengtha from 450 to 1400 nano-meter.

23.Device, as in (22), wherein said high-transmissive material is a ceramic material, quartz or glass, or borosilicate glass.

24.Device as in (21) and (22), said reactor containing a cathode and an anode, at a distance from one another, between which a certain adjustable electro-magnetic field is placed.

25.Device, as in (21) to / in (24), wherein a filament coil is placed, or that of said reactor outside is energized, electro-magnetic or inductive by said adjustable pitch. Between cathode and anode

26.Device, as in (24), said incandescent coil comprises W.

27.Device, as in any of the preceding claims, wherein in order to increase the heat exchange surface, cooling fins are arranged around said reactor.

28.Device, as in any of the preceding claims, wherein ventilation means are arranged, with adjustable intensity, for forcing the convention cooling said ribs.

29.Device, as in any of the preceding claims, wherein said reactor, the following electric parts are added:
a) battery or large capacitor, which produced DC electricity is temporarily stored,
b) inverter (converter); DC in a base AC,
c) programmable waveform creator with frequency variator, which are coupled to said inverter,
d) control transformer,
e) transformer,
f) gelijkríehting. half or whole (vvheatstone bridge), in which an adjustable pulsed electro-magnetic field between cathode and anode is set and maintained.

30.Device, as in any of the preceding claims, wherein circular reactor a 'stack' / 'piles' of bi-metal plates having 'eleetret' plates are provided, for the conversion of heat into DC electricity. Said

31.Device, as in any of the preceding claims, wherein said "stacking" / "piles" are located in a heat-conductive flexible but tight box-constructiawelke around and against said reactor is disposed in a location other than where the cooling fins are located.

32.Device, as (31) where. a plurality of clips around the reactor are arranged around the said flexible, closed box-like structure, in order to promote good surface contact between the bi-metal plates, and electret.

33.Device, as in (31) and (32), said bi-metal plates are electrically insulated and eleetret in relation to the inner wall of said flexible box-like structure.

34.Device, as in (30) tim (33), wherein the materials of bi-metallic and electret are as mentioned in claims (17) and (20).

35.Device, as in any of the preceding claims, wherein said infra-red photo-cells, around and against the outside of the reactor are provided for the generation of DC electricity.

36.Device, as in (35), wherein the materials from which IR photo-said cells exist, are as defined in claim (15).