

Provisional Application for Patent Cover Sheet

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53(c)

Inventor(s)

Inventor 1

Remove

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All Inventors Must Be Listed – Additional Inventor Information blocks may be generated within this form by selecting the **Add** button.

Add

Title of Invention

PAP-LENR technology is a method for interpretation of Low Energy Nuclear Reactions generation and its applications.

Attorney Docket Number (if applicable)

553351102

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The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.

☒ No.☐ Yes, the invention was made by an agency of the United States Government. The U.S. Government agency name is:☐ Yes, the invention was under a contract with an agency of the United States Government. The name of the U.S. Government agency and Government contract number are:

Entity Status**Applicant asserts small entity status under 37 CFR 1.27 or applicant certifies micro entity status under 37 CFR 1.29**

- ☐ Applicant asserts small entity status under 37 CFR 1.27
- ☒ Applicant certifies micro entity status under 37 CFR 1.29. Applicant must attach form PTO/SB/15A or B or equivalent.
- ☐ No

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Signature

Please see 37 CFR 1.4(d) for the form of the signature.

Signature	/Christos Papageorgiou/			Date (YYYY-MM-DD)	2022-02-07
First Name	Christos	Last Name	Papageorgiou	Registration Number (If appropriate)	

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PROVISIONAL APPLICATION FOR PATENT

INVENTION TITLE

PAP-LENR technology is a method for interpretation of Low Energy Nuclear Reactions generation and its applications.

BACKGROUND OF THE INVENTION

Problem Solved: LENR phenomena are those phenomena in which low-energy nuclear reactions occur naturally or artificially, leading to transmutations of certain conductive materials under almost normal temperature and pressure conditions. The existing interpretation of LENR phenomena is missing or unsatisfactory.

PAP-LENR technology is an interpretation of the appearance of LENR phenomena in properly arranged conductive media when receiving a strong electromagnetic pulse. It is also an initial guide for the construction of a LENR engine, which will produce thermal energy many times its electrical excitation energy.

The interpretation of the LENR generating mechanism proposed in this invention is based on the existing standard model of physics and in particular the Maxwell electromagnetic equations and the Schrodinger Quantum Mechanics equation.

There is no system that has been verified by the scientific community to be able to create replicable results.

It provides an interpretation of LENR phenomena based on standard physics model so we can proceed to reproducible experiments and finally to a LENR engine.

DETAILED DESCRIPTION OF THE INVENTION

As stated above, LENR phenomena are those phenomena in which low-energy nuclear reactions occur naturally or artificially, leading to transmutations of certain conductive materials under almost normal temperature and pressure conditions. The existing interpretation of LENR phenomena is missing or unsatisfactory.

PAP-LENR technology is an interpretation of the appearance of LENR phenomena in properly arranged conductive media when receiving a strong electromagnetic pulse. It is also an initial guide for the construction of a LENR engine, which will produce thermal energy many times its electrical excitation energy.

The interpretation of the LENR generating mechanism proposed in this invention is based on the existing standard model of physics and in particular the Maxwell electromagnetic equations and the Schrodinger Quantum Mechanics equation. The invention claimed here solves this problem.

With my interpretation of LENR generating mechanism we can proceed in relative experiments that pave the way towards a LENR device able to generate thermal energy many times larger than its electric input.

The claimed invention differs from what currently exists. The existing technologies related to LENR are non-existent and are not formally modeled.

This invention is an improvement on what currently exists. The existing technologies related to LENR are non-existent and are not formally modeled.

They don't work well since there is no theory that supports their results.

It provides an interpretation of LENR phenomena based on standard physics model so we can proceed to reproducible experiments and finally to a LENR engine.

The Version of The Invention Discussed Here Includes:

1. Instructions to build a LENR engine.

How The Invention Works:

According to the proposed theory of the PAP-LENR invention, linear or curvilinear conductors created either by metal wires or by conductive liquids or gases trapped in containers, when receiving a strong electric pulse act transiently as linear or curvilinear antennas.

In the transient period of operation of these antennas, standing electric waves appear on them, the characteristic wavelength and frequency of which are determined by the Maxwell and Schrodinger equations.

The accumulation of free electrons at the peaks of transient standing waves, with the electrostatic field they create, affects the neighboring atoms of the conductive material and changes the orbits of their electrons (Stark effect). Therefore, the shielding of atoms created by the electron cloud around them is disrupted and due to its perturbation and attenuation, under special conditions, free-moving electrons can enter the nuclei of conductive material causing LENR effects (a form of Electron Capture)

In several cases, in special conductive structures from a combination of suitable materials, the strong electromagnetic pulse can generate low-energy neutrons derived by the conversion of protons to neutrons due to the Electron Capture phenomenon.

The first harmonic of the generated standing waves, which has the highest intensity and the highest probability of creating LENR near its peak, that is the center of any symmetric conductive structure, can be further enhanced by the appropriate curvature of the curvilinear conductive structure.

With the proper selection of the geometric characteristics of the curvilinear conductive structure such as its dimensions and curvature, the intensity of the first harmonic is amplified, and the energy of the electromagnetic strong pulse can create multiplied thermal energy in the conductive structure due to low energy nuclear reactions (LENR) that will occur. Curvilinear conductive structures may be a combination of solid conductive materials (wires) and gaseous or liquid conductive materials placed in a proper container.

LENR effects similar to those observed in curvilinear conductive structures can also occur in conductive sheets.

How To Make The Invention:

According to the theory of the present invention, the PAP-LENR machine will consist of the following parts:

- An electrical device for the production of controlled electrical pulses (A) with suitable electrical characteristics
- A metal component (B) which receives electrical pulses and in which LENRs are generated. This component will explode and pulverized and through an automatic machine (C) will be replaced with a similar one for the next electric pulse etc
- A container (D) in which on the one hand the dust of the pulverized component (B) will be collected by a proper device (E) and on the other hand will absorb the thermal energy released by the electrical pulse and the LENR generated in component (B). This container (D) may contain a suitable liquid or a suitable gas under proper pressure.
- A system (F) that will surround or be integrated into the container (D) and will convert the thermal energy received from it into superheated steam for further cogeneration of electricity and thermal energy.

The metal components (B) which receive the electrical pulses that produce LENR explode and pulverized are the important parts of the present invention.

Each component (B) will be either a cylindrical thin metal wire or a thin sheet of a suitable metal, of specific dimensions and curvature.

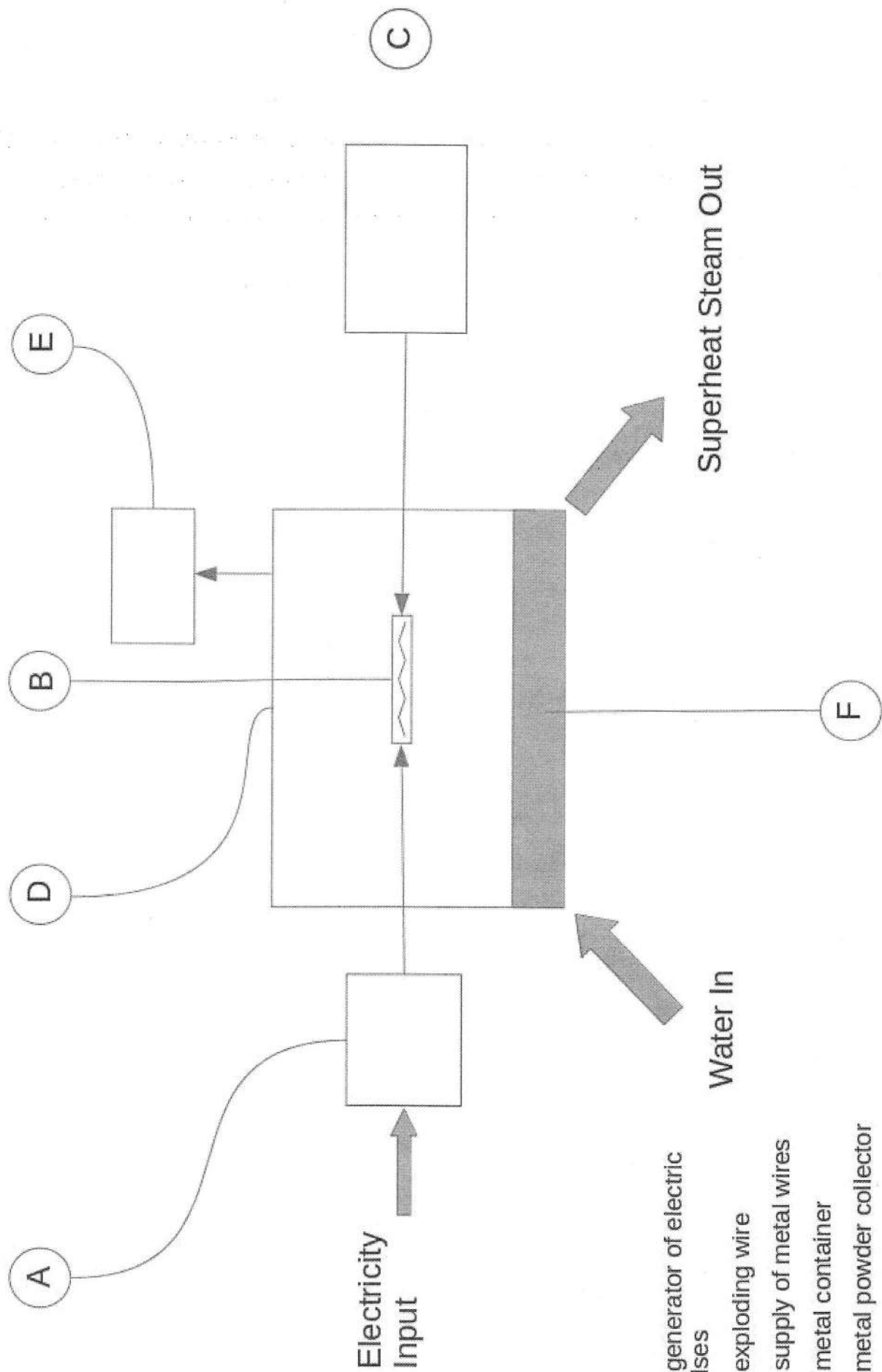
These metal parts in their middle and a relatively small area will have an agglomerated coating of suitable material in which the LENRs will be created, through the Electron Capture process as mentioned in the theoretical interpretation of the invention.

How To Use The Invention:

Follow the instructions to build a LENR engine and be able to produce energy.

ABSTRACT

PAP-LENR technology is a method for interpretation of Low Energy Nuclear Reactions generation and its applications is disclosed. It provides an interpretation of LENR phenomena based on standard physics model so we can proceed to reproducible experiments and finally to a LENR engine.



- A: generator of electric pulses
- B: exploding wire
- C: supply of metal wires
- D: metal container
- E: metal powder collector
- F: thermal absorber