

# **COP 28. Science has not understood that planet Earth could be energetically autonomous without fossil fuels and nucleated energy.**

## **Abstract**

In the previous article (<https://www.spawhe.eu/cop-28-the-usual-conference-of-global-scientific-hypocrisy-like-the-twenty-seven-previous-cops/>) I was forced to speak badly of science. In this article I want to be optimistic because I believe that global warming can be defeated. The technologies developed are good and with small updates, the damage caused by bad science can be repaired quickly by nature itself, if we immediately stop designing and producing nuclear and thermal plants of any kind. The new energy will be clean, take up little space, will cost much less and can be produced on fixed and mobile plants at the temperature of the earth's environment. The rare cases on planet earth that require temperatures of a few thousand degrees centigrade, such as steel mills and incinerators, are all fixed plants and the correct way to design these types of plants is shown on the website <https://www.spawhe.eu>. The same website also shows how to design mobile systems that extract clean energy directly from the earth's environment. However, in this article I want to talk above all about the natural inventions prepared by those who created the universe and planet Earth, to prevent the wrong inventions, which instead, science, entrepreneurs and governments have created anyway, producing global warming and also the unequal distribution of world wealth. In fact, these inventions are also wrong from an economic point of view. Only the

entrepreneurs who produce them gain, those who produce the components necessary to build incorrect systems and those who have to intervene to repair the environmental damage for the reconstructions of the works destroyed by climate change themselves, in a continuous cycle that will never end if the world governments and their scientific advisors do not understand that clean energy can and must be extracted directly from the environment, through the gift received from the creator of the universe of atmospheric air compressible even to thousands of bars and incompressible fresh water which has immense powers, as a fluid dynamic energy carrier, being 830 times denser than air at atmospheric pressure. While, used as steam produced by old and new generation nuclear power plants, thermal engines, traditional fuels or hydrogen, with its bipolar molecule which breaks down into negative and positive ions, it can only increase atmospheric disturbances and global warming, multiplying the damage caused by current world science. In fact, if we carefully observe the way in which terrestrial nature protects biological microorganisms and the life of human beings from nuclear and thermal energies that come both from the center of the Earth and from the solar system, we cannot help but notice that starting from the center of the Earth up to the surface there are several layers of protection from thermal and nuclear pollution. The same happens with regards to the energies that come from the solar system. Since this topic is very broad and complex, in this article, I take advantage of summaries already made, which I extract from Wikipedia and from articles already written by other authors.

The publications that I recently discovered on the internet confirm that my solution of extracting the primary energy necessary for the production of electricity directly from the terrestrial environment is correct for scientific, technical and economic reasons. In fact, I found indirect confirmations from articles published by other authors, which I published in this article and the previous one. According to these

articles, which cite the work of many scientists, electrical and electromagnetic energy are automatically renewed daily, through ion exchange between the ionosphere and the Earth's surface. My inventions that extract clean electrical energy from atmospheric air, which functions as an energy source, and from water, which functions as an energy carrier, are correct, and my method of extracting energy using physical principles of compressible air and incompressible water, at the temperature of the terrestrial environment, without interfering with the functions of the ions contained in the air itself and water, which is present in the air in the form of vapour. Considering that there are many scientists who have worked on these topics since the early 1900s, I am very surprised that none of them arrived at the conception of submerged hydroelectric energy and compressed hydroelectromagnetic energy which exploit physical principles independent of the ions, which extract the primary physical force to produce electrical energy on site with terrestrial technology, without resorting to thermal, nuclear power plants, solar panels, electrolysis, wind energy, which require the transport of the energy produced to be used. What I consider important from the publications that I have referred to is the fact that these publications clearly explain that the Earth and its atmosphere constitute a gigantic electrical capacitor, where the Earth's surface takes on the negatively charged armature and the atmosphere, by means of the band called ionosphere, takes on the negatively charged armor. Therefore, electrical and electromagnetic energy is produced by the terrestrial atmospheric environment without the use of any terrestrial technology.

According to the aforementioned publications, the voltage at the ends of the plates of this "immense capacitor" reaches values of 200, 300 kV (between the lower part of the ionosphere and the ground), while the global charge and capacity are on average around  $5,10^5$  coulombs (ampere per sec). and only 2 farads of capacity (coulombs/volt). In fact,

the atmosphere is not perfectly insulating so that between it and the earth, an average electric current, called clear-sky current, of around 1000 – 1500 amperes is established; this current in a very short time (much less than an hour) would discharge the terrestrial “capacitor” if the soil were not continuously fed negative charges by the storms that incessantly follow one another on the planet through essentially two mechanisms: the electrical effluvia from the roughness of the soil towards clouds and lightning, to which, today, must also be added those emitted by the lines transporting the electricity produced by terrestrial plants. The other factor that powers the natural terrestrial condenser is the polarizing atmospheric gas, which also contains CO<sub>2</sub> and water vapor. But while CO<sub>2</sub>, having a non-polar molecule, can only be ionized by combining with free hydrogen ions, water molecules have the power to polarize without dissociating into H<sup>+</sup> OH<sup>-</sup> ions, therefore, water vapor, maintaining the density of the water drops (830 times higher than atmospheric gases) produces much more damage than CO<sub>2</sub> during atmospheric turbulence, being produced in very large quantities by thermal, nuclear and solar panels. In fact, while CO<sub>2</sub>, despite the strong increase, is only 0.0420% of the atmosphere, water vapor has a variable percentage that can even exceed 6%. Before the industrial era, there existed only nuclear energy produced by the Creator of the universe, the natural evaporation of the earth’s surface, the chimneys of homes and artisan activities, which did not excessively disturb the functioning of the electric capacitor of the aforementioned planet Earth. Today, due to the wrong inventions from earth science, we introduce into the earth’s environment an immense quantity of ions which become electrostatically polarised, and add to the natural ones emitted from the earth’s surface. These additional ions would not be emitted if, as the undersigned proposes, for several years, energy was extracted directly from the terrestrial environment without fuels, nuclear energy, solar panels and without the transport of electricity on high voltage pylons. Therefore, even wind

energy, which cannot be used where it is produced, increases global warming through transport. Obviously, the transport of energy, in addition to causing environmental damage, also has a considerable cost. However, compressed hydroelectromagnetic energy, since it was invented by a simple pensioner, is still boycotted by science and the entire world ruling class after about eight years from its invention. No one thought that this energy was suggested to me, step by step, by the Creator of the universe. In fact, I only wanted to clean fossil energy, save water resources and improve purification systems. If I am starting to believe in this possible truth it is precisely because of the silences that I have collected worldwide on all my forty inventions. For the entire world, political, scientific and economic ruling class, it is not easy to admit that without a single euro, dollar, ruble, yen invested by any government or any multinational, we could produce clean energy, even breathable and drinkable by man, by extracting it from the environment, within individual homes, laboratories, factories and mobile work vehicles and means of transport. The latter could even add together the push of Newton and Lorentz, infinitely recycling both the energy source (atmospheric air) and the energy carrier (water) and go into space, without fuels and nuclear energy.

The nuclear energy produced by the creator of the universe, stars and planets, is already perfect. Without it, magnetism, electromagnetism, photosynthesis, the carbon cycle and no form of biological and animal life would exist. Therefore, man would not even exist. Which with the artificial heart oxygenator of the autonomous blood energetically could also defeat old age and with artificial organs, at least triple the duration of current life. These progress do not happen because the current ruling class only seeks economic profit. Even artificial intelligence today is used to create algorithms that allow stock market earnings without working, instead of real scientific and technological progress. Only the science of the Creator of the universe, until now, has been 100%

reliable. He used all the precautions to protect human lives, those of animals and the biological life of the earth, lakes and seas, from radioactive phenomena, by means of the hundreds of light years of distance between one galaxy and another and the various stratifications atmospheric and matter surrounding the magnetic iron cores of stars and planets. All this should have given pause to science, politicians, economists and entrepreneurs who participated in COP 28 in 2023 and in previous ones. But I wonder why we have to wait until 2050 to abolish fuels and why this ruling class wants to continue producing steam and radioactivity, basing the ecological transition on new nuclear power which is not even a bad copy of the original nuclear power plant designed by the Creator of the universe without the use of no technology approximately 14.5 billion years ago? Furthermore, if nature is able to continuously recharge the armatures of the large terrestrial capacitor, made up of the terrestrial soil and the ionosphere, it is also capable of feeding the energy vector, which is the incompressible water, 830 times more powerful than air, to free us forever and at low cost, from fossil fuels and nuclear energy, which are not economically sustainable, have created more disasters than benefits, are not suitable for making small artificial hearts to extend human life, not even to add together the push of Newton and Lorentz to lift us into the atmosphere and begin real space exploration. Current science, which has got all the world's purification and energy applications wrong on a practical level, still has the ambition of achieving the magnetic confinement of nucleate fusion which theoretically can reach 100 million degrees centigrade. It is no coincidence that the undersigned, a simple pensioner, after having spent 20,000 euros to comply with national and international patent filing procedures, not finding public and private interlocutors, has always moved closer to the sustainable science of God and distanced himself from that of men.

## **1. the earth system and electromagnetic waves.**

This paragraph was extracted entirely from Wikipedia: Our planet is made up of concentric shells of different material: the Earth's crust, which can be divided into continental and oceanic, constitutes the outermost layer; below is the earth's mantle, which extends to a 2890 km depth; still below, and up to the center of the Earth (6371 km from the surface) is the core. The lithospheric mantle, the most superficial part of the mantle, is welded to the crust, and together they form what is called the lithosphere. Between the lithosphere and the lower mantle (called the mesosphere) there is the asthenosphere: a thin layer of partially molten mantle that allows the overlying lithosphere to move at a speed of a few cm per year. The upper limit is given by the Earth's surface which brings it into contact with the atmosphere or hydrosphere. The lower limit of the Earth's crust is a well-defined surface marked by both physical (changes in mechanical properties) and chemical (changes in composition) changes. The crust-mantle interface is defined, from a petrographic point of view, as the transition between rocks that contain feldspars (above) and those that do not (below). The crust is therefore distinguished from the mantle because its crystalline rocks are predominantly acidic or basic, while those of the mantle are ultrabasic. The crust is, of course, the only part of the Earth that contains sedimentary rocks.

There is also a physical discontinuity (discontinuities are all those parts of the Earth that separate the layers) that distinguishes the crust from the mantle: it is a transition zone between rocks with a low propagation speed of seismic waves (in the crust) and rocks with high speed (in the mantle); this discontinuity is called the Mohorovičić discontinuity, often abbreviated to Moho.

The earthly core, in geology and geophysics, is the innermost of the concentric shells into which the Earth is divided. Characterized by a high density, the core is separated from the mantle by a discontinuity, known as the Gutenberg

discontinuity, located at approximately 2900 km from the surface. The nucleus, therefore, has a radius of approximately 3500 km and, based on the phase of the components that constitute it, is further divided into two concentric shells:

- the external, liquid core is mainly composed of iron (20%) and nickel and is characterized by a temperature of 3000 °C, a density of 9.3 g/cm<sup>3</sup> and a pressure of 140 GPa; the convective currents in the liquid outer core would be, according to some theories, the cause of the origin of the earth's geomagnetic field, based on the geodynamo model.
- the internal core is instead viscous, composed almost exclusively of iron, with a radius of approximately 1250 km, has a temperature around 5400 °C/6000 °C,[1] a density of 13 g/cm<sup>3</sup> and a pressure of 330- 360 GPa.[2] These limiting conditions suggest that iron is in a crystalline state.

Although the temperature of the inner core is higher than the outer one, it is viscous because the pressure is higher and this leads to a notable increase in the melting point of the iron. But if it could hypothetically be punctured, it would be liquid.

According to recent studies, the core temperature is mostly produced by the spontaneous decay of radioactive elements such as uranium, thorium and potassium.

**Again from Wikipedia** I extract the summary of the atmospheric composition: The Earth's atmosphere is the envelope of gas that covers the planet Earth, retained both by the force of gravity and by the magnetic field (it counteracts the solar wind which would otherwise sweep it away) participating in maximum part of its rotation. With a chemical composition that varies based on altitude and location, it has a rather complex structure divided into five layers, called



spheres, defined on the basis of the inversion of its vertical thermal gradient. Starting from the bottom, these spheres are the troposphere, stratosphere, mesosphere, thermosphere and exosphere, while the discontinuity surface between two layers where the sign inversion takes place is called the "pause". The study of the atmosphere in all its aspects falls within the broad scope and disciplines of atmospheric sciences.

The atmospheric mass is approximately  $5.15 \times 10^{18}$  kg,[1] three-quarters of which is contained within the first 11 km of altitude. The average atmospheric pressure at sea level, i.e. the average weight of the portion of the atmosphere above a horizontal surface located at sea level divided by the area of that surface, is 1,013 hPa (1,033 g/cm<sup>2</sup>). It is equivalent to that produced, at its base, by a column of water just over 10 m high. This value is adopted as the definition of the unit of measurement of pressure called the atmosphere. Pressure and density decrease exponentially as the altitude increases, while the variation of the temperature has a very particular trend, due to the absorption of the solar and terrestrial radiation, and according to the most used classification the inversions of the vertical thermal gradient identify the boundaries between the various atmospheric bands. The blue color of the sky is due to Rayleigh scattering of the blue component of the visible spectrum of solar radiation, which gradually increases as the density of the air increases. The Earth's

atmosphere does not have a well-defined external boundary: it slowly fades towards the interplanetary space, with the color progressively passing from light blue to blue, up to the intense black of the interplanetary near-vacuum.

The thickness of the Earth's atmosphere, in terms of quantities in use in particle physics, can be expressed as  $l \cdot \rho$  where  $l$  is the height of the atmosphere and  $\rho$  is the density, so as to take into account how much actual material

the particles who cross the medium meet. In the case in question the particles traveling through the atmosphere are the cosmic rays and the thickness of the same is  $l * \rho = 1035 \text{ g/cm}^2$ . This is equivalent to approximately  $27 X_0$  with  $X_0 = 36,66$  length of radiation in the air and at approx  $11 \lambda_i$  with  $\lambda_i = 90 \text{ g/cm}^2$  hadronic interaction length, defined as the interaction of a proton with air.

Leaving aside the presence of dust, aerosols and pollutants of anthropogenic origin in the Earth's atmosphere, it can be considered as a mixture of gases which, in the case of dry air, i.e. without water vapour, has the following average chemical composition on the ground ( the percentages indicated are in volume):

- • Nitrogen (N<sub>2</sub>): 78.084% • Oxygen (O<sub>2</sub>): 20.946% • Argon (Ar): 0.934% • Carbon dioxide (CO<sub>2</sub>): 0.0420% (420 ppm)[4] • Neon (Ne): 0.0018% (18 ppm) • Helium (He): 0.000524% (5 ppm) • Methane (CH<sub>4</sub>): 0.00016% (2 ppm) • Krypton (Kr): 0.000114% (1.1 ppm)
- • Hydrogen (H<sub>2</sub>): 0.00005% (0.5 ppm) • Xenon (Xe): 0.0000087% (0.08 ppm).
- To these gases is added the water vapor (H<sub>2</sub>O), the percentage of which is quite variable (from 0% to 6%), with an average of 0.33% [without source], and the ozone (O<sub>3</sub>), with a concentration around 0.000004% (0.04 ppm)[without source]. Also present, in trace amounts, are nitrogen oxides (NO, NO<sub>2</sub>; N<sub>2</sub>O), carbon monoxide (CO), ammonia (NH<sub>3</sub>), sulfur dioxide (SO<sub>2</sub>) and hydrogen sulfide (H<sub>2</sub>S).

Not all layers have the same gas concentrations: for example, water vapor is present almost only in the troposphere, the lowest layer, and is practically absent in the thermosphere and exosphere, which vice versa contain almost all the helium and hydrogen. Furthermore, the concentration of water vapor in

the troposphere is not constant, but also varies significantly from place to place and over time as a result of changes in the atmospheric weather or through the processes of evaporation and condensation, intermediate stages of the water cycle. Ozone is mostly contained in the stratosphere in which it constitutes an important layer: the ozone layer. The composition of gases in the atmosphere has not always been the same as it is today, but during the Earth's history it has varied considerably.

The most important atmospheric tides are predominantly generated in the troposphere and the stratosphere where the atmosphere is periodically heated following the absorption of solar radiation by water vapor and ozone. The tides generated are then able to propagate from these regions and rise up to the mesosphere and the thermosphere. Atmospheric tides can be measured as regular fluctuations in wind, temperature, density, and pressure. Although atmospheric tides have much in common with ocean tides, they are distinguished from the latter by two key characteristics:

- they are primarily caused by the heating of the atmosphere by the Sun, while those of the oceans are mainly caused by the lunar gravitational field. This means that most atmospheric tides have periods of oscillation linked to the 24-hour duration of the solar day, while oceanic ones have longer periods linked to the lunar day (time between two successive lunar transits) quantifiable in approximately 24 hours and 51 minutes .
- they propagate in an atmosphere where the density varies significantly with altitude. A consequence of this is that their amplitudes grow exponentially as the tide rises in progressively thinner regions of the atmosphere. In contrast, the density of the oceans varies only slightly with depth, and therefore tides do not necessarily vary in amplitude relative to depth.

Note that although solar heat is responsible for the greater amplitude of atmospheric tides, the gravitational fields of the Sun and Moon also cause atmospheric tides. As with the oceans, the atmospheric tides generated by the lunar gravitational field are much larger than those generated by the solar field (in fact, the latter can be considered negligible). At ground level, atmospheric tides can be localized as slight, but regular oscillations in surface pressure with 24- and 12-hour periods. However, at higher altitudes, tidal amplitudes become very large. In the mesosphere (height of ~ 50 – 100 km) atmospheric tides can reach speeds of 50 m/s and are often the major cause of movement of the atmosphere.

First of all, it is usual to divide the atmosphere into three distinct bands based on its chemical composition:

the homosphere between the ground and 100 km of altitude where the average chemical composition remains almost constant due to the continuous vertical mixing motions to which it is subjected. It consists mainly of nitrogen, oxygen and argon. The homosphere contains 99.999% of the mass of the entire atmosphere.

- • the heterosphere above 100 km altitude, where there is a high concentration of atomic oxygen produced as a result of photolysis phenomena;
- • the exosphere, where the condition of diffusive equilibrium prevails, by virtue of which the chemical composition varies with altitude with an ever-increasing presence of light gases such as helium and hydrogen until they fade into the interplanetary near-vacuum.

It is also customary to divide the Earth's atmosphere based on the trend of its main parameters, including temperature, as a function of the altitude.

Troposphere It is the layer in which almost all meteorological phenomena occur and contains 80% of the total gaseous mass and 99% of the water vapour: the air of the troposphere is heated by the earth's surface and has a temperature that decreases with the altitude up to approximately  $-55\text{ }^{\circ}\text{C}$  of the tropopause. The air from the lower layers, which tends to rise, generates large convective currents from which constant equatorial winds (the trade winds) originate; this effect combines with the so-called "Coriolis effect" due to the earth's rotation, generating the rest of the atmospheric circulation and the atmospheric disturbances.

The troposphere has a variable thickness depending on the latitude: at the poles it is on average 8 km thick while 20 km at the equator. Atmospheric pressure decreases with altitude according to a first approximation exponential law; above 7–8 km altitude the pressure is so low that it is no longer possible to breathe without the use of masks connected to oxygen cylinders. As you rise above 5 km, in addition to pressure and temperature, the water vapor content of the air also decreases, while for altitudes below 5 km the humidity increases with the distance from the ground. At a certain point the temperature stabilizes at around  $-55\text{ }^{\circ}\text{C}$ : it is the tropopause, the transition zone between the troposphere and the stratosphere.

The word troposphere derives from the Greek  $\tau\rho\acute{o}\pi\omicron\varsigma$  (trópos) which means "variation, change" precisely because within this sphere there are all those vertical and horizontal air motions which mix the atmosphere itself and which characterize the changing weather. The troposphere is also the place of life as well as meteorological phenomena: all the plants and all the living beings live in it using some of the gases that constitute it, as well as benefiting from the incident solar radiation.

**Stratosphere** It is the atmospheric layer that lies above the troposphere and reaches a height of 50–60 km. Here a phenomenon called thermal inversion occurs: while in the troposphere the temperature decreases with height, in the stratosphere it increases, up to a temperature of 0 °C. This phenomenon is due to the presence of a layer of ozone (triatomic oxygen molecule), the ozone layer, which absorbs most of the solar ultraviolet (UV) radiation (about 99%). In some points of the ozone layer the ozone layer has thinned (ozone hole phenomenon, discovered in the Antarctic area) to the point that it no longer offers effective protection from ultraviolet rays which, in these conditions, can reach large amount of the earth's soil.

These rays cause serious damage to plants and in general to all living beings. Damage to humans can be skin tumors and blindness, due to irreversible damage to the retina. In the stratosphere the components are increasingly rarefied, water vapor and atmospheric dust decrease; some rare meteorological phenomena and certain particular types of clouds still exist (for example, nacreous clouds).

**Mesosphere** In this area, which goes from 50 to 90 km above sea level, the atmosphere is no longer influenced by the earth's surface and is constant at all latitudes. It is characterized by an accentuated rarefaction of gaseous elements and a gradual increase in lighter ones to the detriment of heavier ones. In this part of the atmosphere the temperature starts to decrease with height and reaches the minimum value, varying between  $-70$  and  $-90$  °C, around 80 km; at this altitude you can sometimes observe the noctilucent clouds, probably made up of ice crystals and very minute dust: they are visible during the summer, at twilight and appear as thin, brilliant clouds, intensely illuminated by the last rays of the Sun. The observation of these clouds shows that in the upper mesosphere there is a complex system of air currents, with variable trends, which should reach speeds of up to 300 km/h.

Connected to these motions are the variations in height of the mesopause, as also occurs in the tropopause and stratopause. In these conditions the gases stratify by diffusion and the average chemical composition of the air begins to vary with altitude. The carbon dioxide disappears quickly, the water vapor even faster, and the percentage of oxygen also begins to

decrease with altitude. The percentages of light gases such as helium and hydrogen are increasing. The warming effect of ozone has ended and the temperature decreases more and more with altitude until it stabilizes at the upper limit of the mesosphere ( $-80\text{ }^{\circ}\text{C}$  in the mesopause).

**Exosphere** It is the outermost part of the Earth's atmosphere, where the chemical composition changes dramatically. The exosphere has no true upper limit, progressively fading towards interplanetary space and coming to include part of the van Allen belts. Its constituents, as already mentioned, are mostly hydrogen and helium, mostly particles of the solar wind captured by the Earth's magnetosphere (if hydrogen is emitted from the Earth it does not reach this height: it oxidizes into water at least once it reaches the ozonosphere).

Through indirect observation methods and theoretical calculations, it is deduced that the temperature of the exosphere increases with height until it reaches, if not exceeds,  $2,000\text{ }^{\circ}\text{C}$  (kinetic temperature). Due to this temperature, some of the molecules present reach the earthly escape velocity ( $11.2\text{ km/s}$ ) and escape from the atmosphere, getting lost in space.

The outermost and rarefied layer that is part of the exosphere is called the geocorona and could extend up to  $630,000\text{ km}$ .

The current chemical composition of the atmosphere is the



result of its evolution since primordial times: volcanic activity, photosynthesis, the action of solar radiation, oxidative processes and microbial activity have modified the composition until the current equilibrium is reached. The first atmosphere created around planet Earth during its formation was probably made up of the gases present in the nebula that gave rise to the solar system, attracted by the gravitational force of the newborn planet. This atmosphere must have consisted mainly of hydrogen ( $H_2$ ), along with other gases such as water vapor ( $H_2O$ ), methane ( $CH_4$ ), and ammonia ( $NH_3$ ). From the moment the solar wind of the newborn Sun swept away what remained of the solar nebula, however, in all likelihood this primary atmosphere was also swept away.

Our planet's second atmosphere may have formed from gases released, via chemical reactions, from the solid materials that made up the newborn planet Earth. If the mixture of gases released was similar to that released by magma during volcanic eruptions, this primordial atmosphere should have been composed mainly of water vapor ( $H_2O$ ), nitrogen ( $N_2$ ), and carbon dioxide ( $CO_2$ ). Alternative models, based on the study of the gases released by the impact of meteorites on the forming Earth, lead to describing a primordial atmosphere composed of methane ( $CH_4$ ), hydrogen ( $H_2$ ), water vapor ( $H_2O$ ), nitrogen ( $N_2$ ) and ammonia ( $NH_3$ ).

Following the great impact which, according to the most accredited theories, gave rise to the Moon, the Earth's atmosphere must have undergone very notable changes. Many rocks from both the Earth and the impacting body evaporated, and this vapor added to the gases present in the Earth's atmosphere for many years. Cooling following the large impact led substances with higher boiling points to condense, forming an ocean of magma overlain by an atmosphere rich in hydrogen ( $H_2$ ), carbon monoxide ( $CO$ ), water vapor ( $H_2O$ ) and dioxide carbon ( $CO_2$ ). Subsequently, as the

temperature dropped, the magma ocean solidified, and water vapor was also able to condense and form the oceans, beneath a dense carbon dioxide atmosphere. This, over time, reacted with the rocks of the ocean floor to form carbonates, which were gradually subducted by tectonic activity. Within 20 – 100 million years after the impact, most of the carbon dioxide present would have been sequestered within the mantle.

In the Archean eon, the atmosphere was probably composed of nitrogen (N<sub>2</sub>) and about 10% carbon dioxide (CO<sub>2</sub>), along with water vapor (H<sub>2</sub>O) and modest amounts (0.1% or more) of hydrogen (H<sub>2</sub>). With the advent of life and in particular of methanogenesis, hydrogen was gradually replaced with methane (CH<sub>4</sub>), up to a concentration of at least 0.1%. Methane and carbon dioxide, through the greenhouse effect, would have guaranteed a surface temperature of the Earth high enough to allow the oceans to remain liquid, even though the Sun was less bright than today.

Until 2.45 billion years ago, the Earth's atmosphere was devoid of oxygen (O<sub>2</sub>): its presence in the modern atmosphere is due to photosynthesis initially carried out by cyanobacteria, to which were then added algae and plants. As the first photosynthetic organisms released oxygen, it went on to oxidize the rocks on the Earth's surface. Once the easily oxidizable substances were exhausted, oxygen began to accumulate in the Earth's atmosphere, initially in modest quantities, then (starting from 850 million years ago) the concentration of oxygen rose (with various fluctuations) up to the values current. The advent of atmospheric oxygen, 2.45 billion years ago, likely resulted in the oxidation of atmospheric methane, and the resulting decrease in the greenhouse effect may have resulted in the Huronian glaciation.

**Again from Wikipedia I extract the description of the ionosphere:**

The ionosphere is the band of the Earth's atmosphere in which the radiation of the Sun, and to a lesser extent the cosmic rays coming from space, cause the ionization of the component gases. Extending between 60 and 1000 km of altitude and therefore partially belonging to both the mesosphere and the thermosphere, it can be further divided into layers highlighting their different electrical properties, due to variations in composition and intensity of solar radiation received.

The ionosphere is extremely rarefied: despite being hundreds of kilometers thick, it contains only about 1% of the total atmospheric gaseous mass. The daytime temperature varies from 200 K in the innermost layers to 1500 K in the outermost layers, most exposed to the Sun. The presence of solar lighting has a great influence on the properties of ionospheric gases, which therefore change significantly between day and night. The much longer cycle of solar activity also has noticeable effects on the ionosphere.

The ionosphere plays an important role in some radio applications due to the peculiar electrical properties mentioned above; under appropriate conditions a radio frequency wave incident on an ionized layer can be totally reflected due to the electronic saturation of matter, unlike what happens in the non-ionized atmosphere whose refractive index presents variations that are generally too small to produce total reflection of a wave, which is partly absorbed and dispersed. Consequently, it is possible to use a propagation model based on multiple reflections between the earth's surface and the ionosphere. This type of propagation is quite efficient for frequencies below 30 MHz, the so-called short waves, typically used by amateur radio transmissions.

## Layer D

It is the innermost layer and extends between 48 and 90 km altitude. In this case the ionization is due to the alpha line of the Lyman series of hydrogen i.e. a wavelength of 121.6 nm ionizing the nitric oxide (NO). In the D layer the recombination rates are high and consequently there are more neutral molecules than ions.

The medium waves and low short wave radios are significantly attenuated in the D layer, the passage of these radio waves causes the electrons to move, which collide with the neutral molecules, losing part of their energy. Lower frequencies are more absorbed, as they cause the electrons to move further away, increasing the probability of collision. This is the main reason for the absorption of radio waves with frequency below 10 MHz, with gradually less absorption at higher frequency. The effect is greatest at midday and decreases during the night as the thickness of the D layer decreases; only a small part remains due to cosmic rays. A typical example of the action of the D layer is that AM radio stations disappear.

Only occasionally, in the case of solar flares, the ionization of the D layer, due to the effect of the X-rays which can ionize the molecules of nitrogen N<sub>2</sub> and those of oxygen O<sub>2</sub>, can become so intense as to give this layer notable reflection properties, in particular towards the VLFs, generating sudden variations in the propagation properties of the latter and these phenomena are called Sudden Ionospheric Disturbance, abbreviated SID.

## E layer

It extends between 90 and 150 km altitude. Ionization is due to soft X-rays ((1–10 nm) and far Ultraviolet (200-122 nm). The ionized gas is molecular oxygen (O<sub>2</sub>). The recombination rate is slower than in the D layer. Normally , at oblique

incidence, this layer can only reflect radio waves that have a frequency lower than 10 MHz and contributes weakly to the absorption of higher frequencies. However, during rare forms of radio propagation, called sporadic E, the Es layer can reflect frequencies above 50 MHz. The vertical structure of the E layer is mainly due to the competing effect of ionization and recombination. During the night the E layer weakens, since the primary ionization source is no longer present. After sunset, the maximum height of the E layer increases E layer and as a result the radio waves are reflected in the layer for a longer distance.

This region is also known as the Kennelly–Heaviside layer or simply the Heaviside layer.

## **Es layer**

It is a sporadic layer that sometimes appears at an altitude of 100 km for short intervals of time (from a few minutes to a few hours). It is characterized by electronic clouds of lamellar shape and small thickness (about 2 km), strongly ionised, capable of supporting propagation up to 20 MHz. Various causes are currently being studied that could contribute to the formation of the Es layer; for example, the heat produced by the disintegration of meteor showers entering the atmosphere can create trails of intense ionization, which can be interpreted as E.g. layers.

## **Layer F**

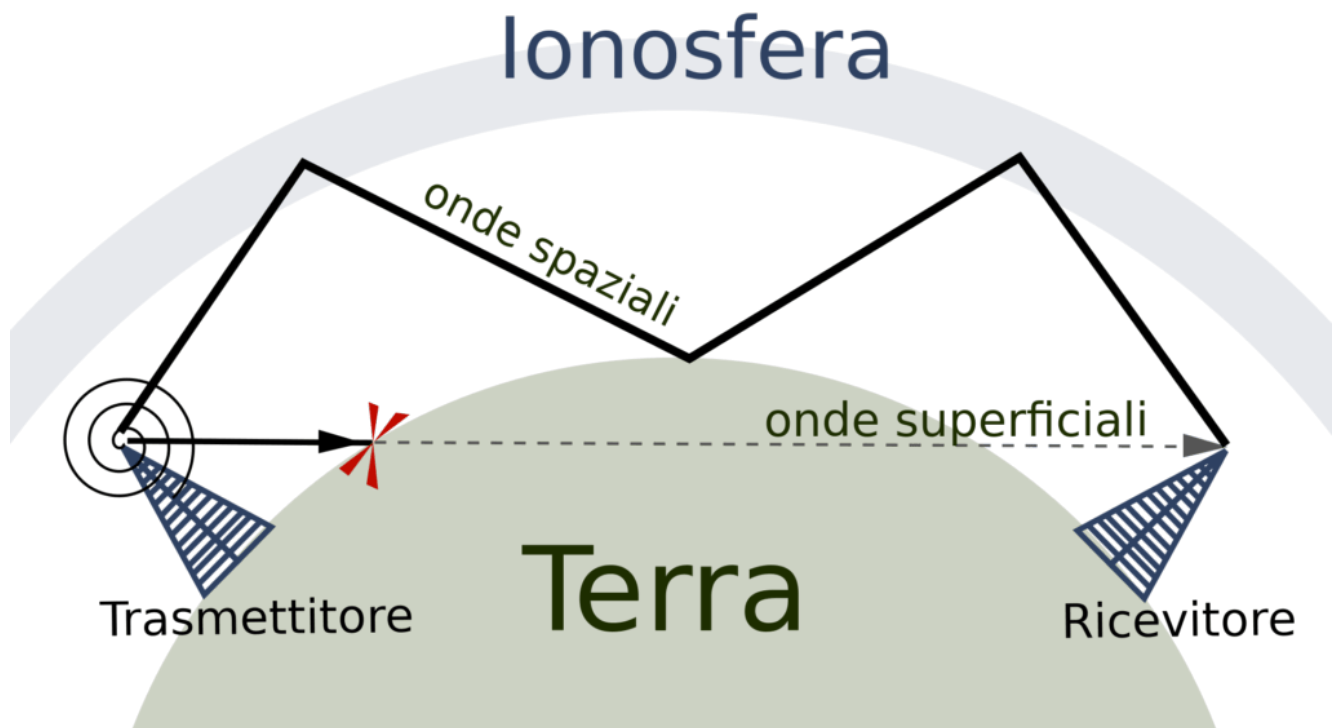
It extends between 130 and 450 km altitude. The ionized gas is atomic oxygen (O). During the day, the F layer divides into two further sublayers, F1 (internal) and F2 (external), in which ionization takes on different properties; they are called “Appleton layers”, after Edward Victor Appleton who studied them. The F1 layer extends up to approximately 240 km and contains mainly  $\text{NO}^+$  ions, in the F2 layer, which extends beyond the altitude of approximately 240 km, mainly  $\text{O}^+$  ions

are present. The F region is the most important from the point of view of HF communications because it is where the maximum concentrations of electron density are reached, making it the thickest and most reflective.

A radio wave reaching the ionosphere forces free electrons to oscillate at the same frequency as its electric field. If the oscillation energy is not lost by recombination, i.e. if the recombination frequency is less than the frequency of the wave, the electrons will stop oscillating, re-radiating the wave towards the ground. The higher the frequency of the incident wave, the greater the number of free charges needed to reradiate the wave. If there are not enough charges ready to oscillate, total reflection and therefore ionospheric propagation cannot occur.

- for frequencies lower than the critical frequency there is unconditional reflection, whatever the angle of incidence;  $n$  in fact it cancels out.
- for frequencies higher than the critical frequency, the reflection occurs only under a certain angle of incidence, which depends on the frequency.

The angle of incidence is limited below by the curvature of the earth; even using an antenna at a very low elevation angle, it is not possible to reduce the angle of incidence below a certain value; therefore, ionospheric propagation never takes place at frequencies greater than 3 – 3.5 times the critical frequency. For the F2 layer, which is the most ionized one, this limit value (MUF, maximum usable frequency) is approximately 30 MHz. To avoid this, repeaters are used.



## 2. The Earth system and the natural global electrical circuit

The ionosphere not only reflects the radio signals of the chapter previously extracted from Wikipedia, but also the very powerful electrostatic ones coming from inside planet Earth described in the previous article by the undersigned entitled Cop 28, the usual conference of global scientific hypocrisy like the twenty-seven previous COPs. (<https://www.spawhe.eu/cop-28-the-usual-conference-of-global-scientific-hypocrisy-like-the-twenty-seven-previous-cops/>)

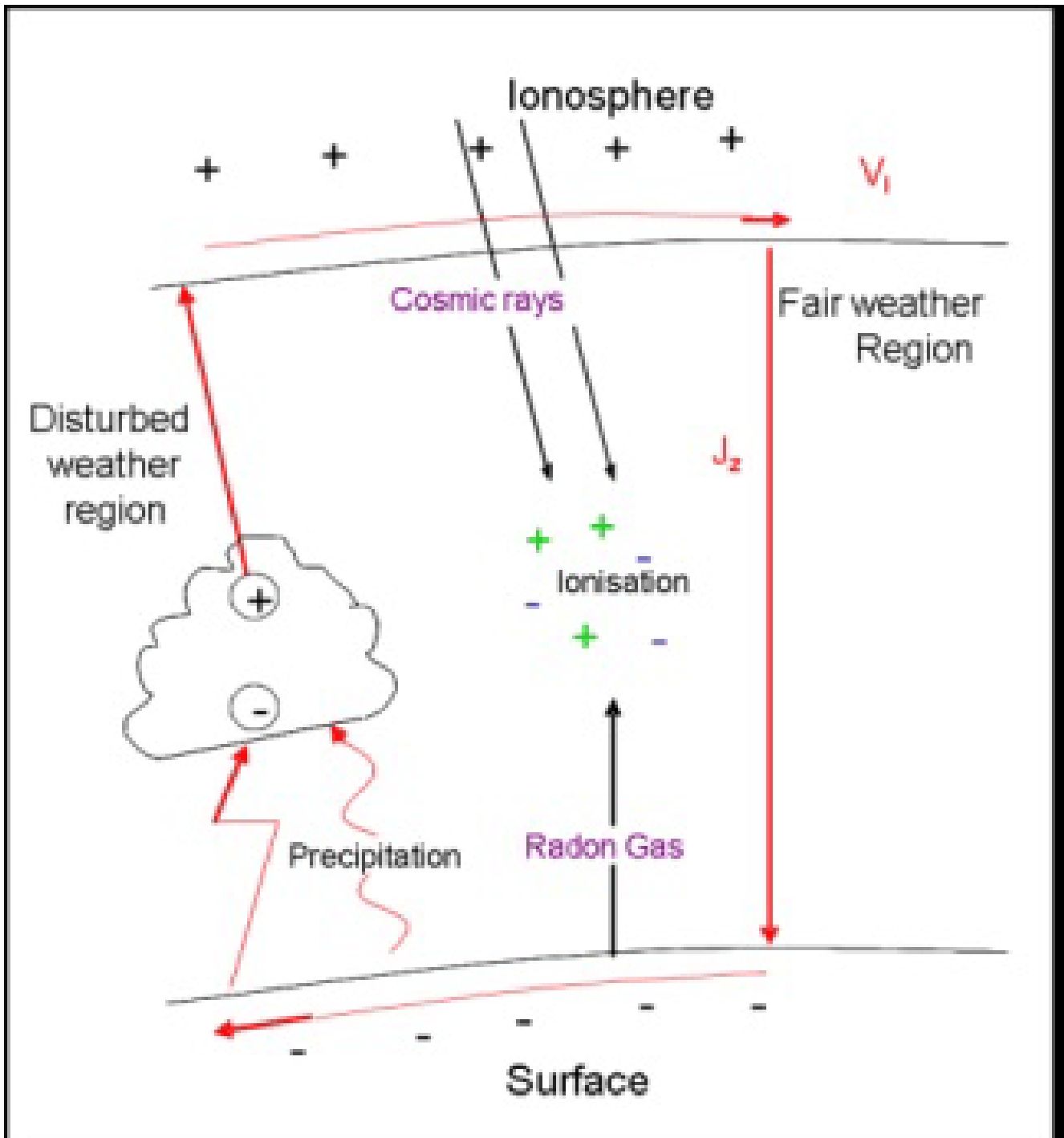


Figure 2.2: Reproduction of the global electrical circuit. Currents go with the flow of positive charges. Cosmic rays charge the ionosphere positively while the Earth's surface is negatively charged.



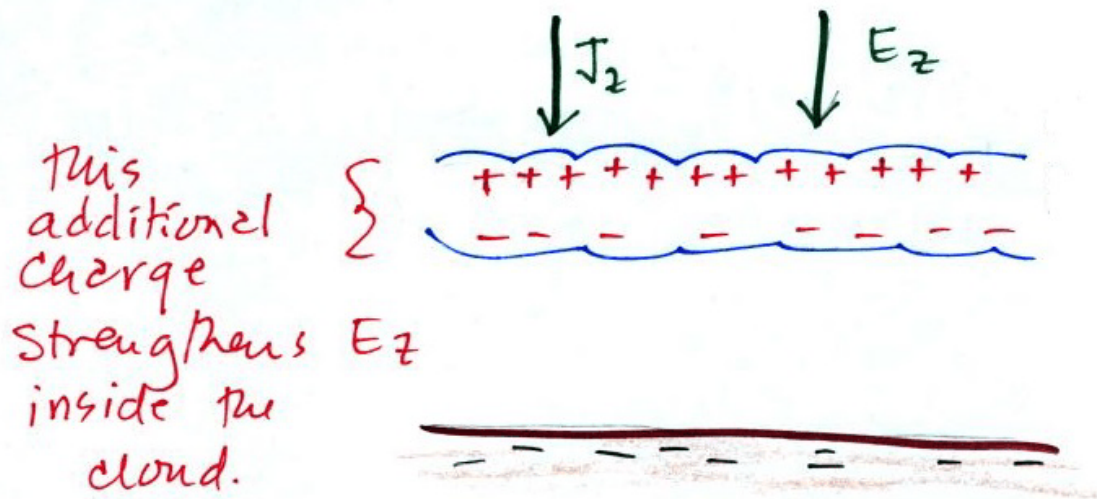


Figure 3.3, shown below, shows a conceptual model of the electrical structure of an isolated thunderstorm in its mature phase, based on the analysis of 49 soundings carried out in different clouds in the conditions just described. On average there are four layers of charge in the updraft region and six outside it. The entire system is shielded by negative charges and the anvil has a predominantly positive charge.

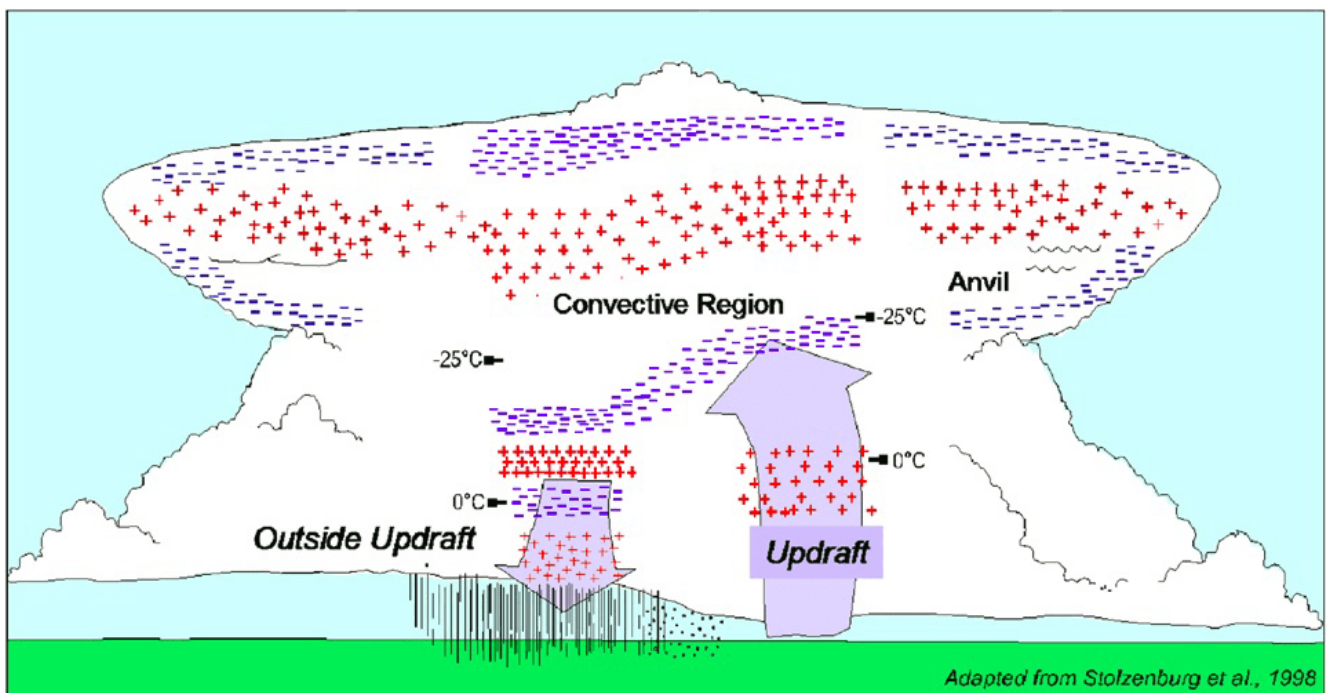
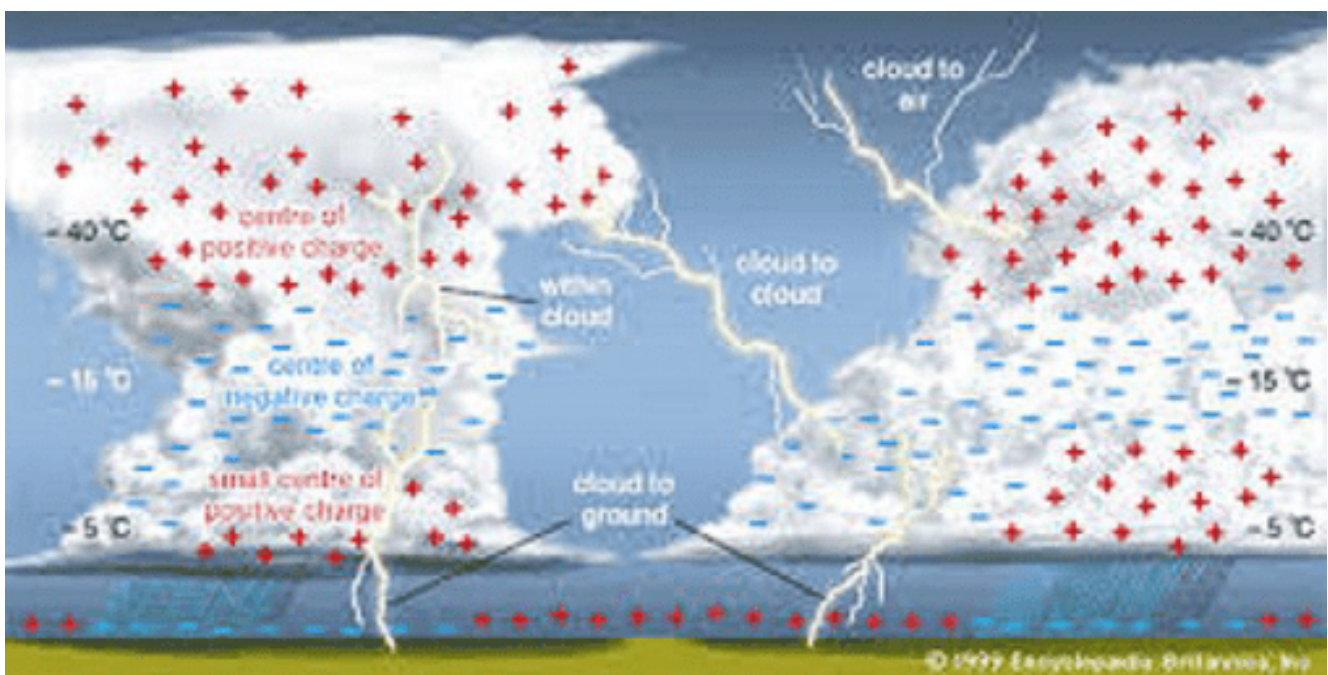
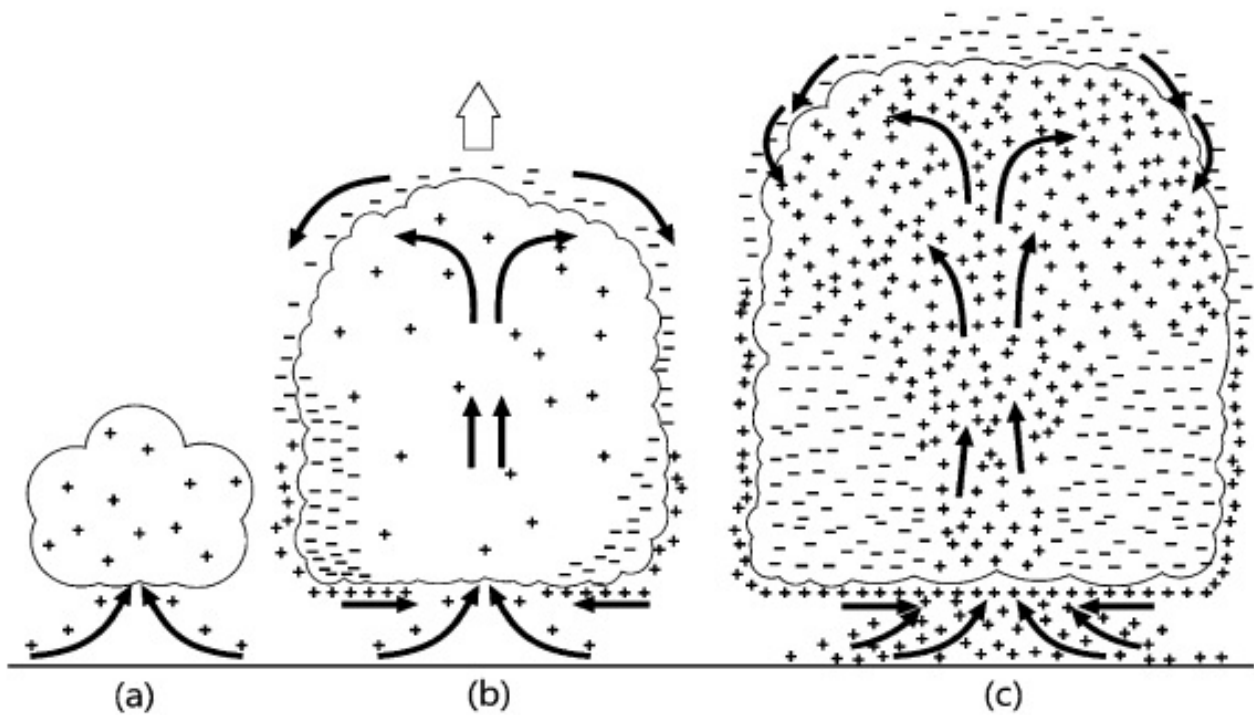


Figure 3.6: Cloud loading mechanism during the cumulus and mature stages of cloud evolution.



From the online magazine [http://www.nimbus.it/liguria/rlm09/didattica/stampa\\_fenomeni\\_elettrici.htm](http://www.nimbus.it/liguria/rlm09/didattica/stampa_fenomeni_elettrici.htm)

### Electrical phenomena of the atmosphere by Diego Rosa

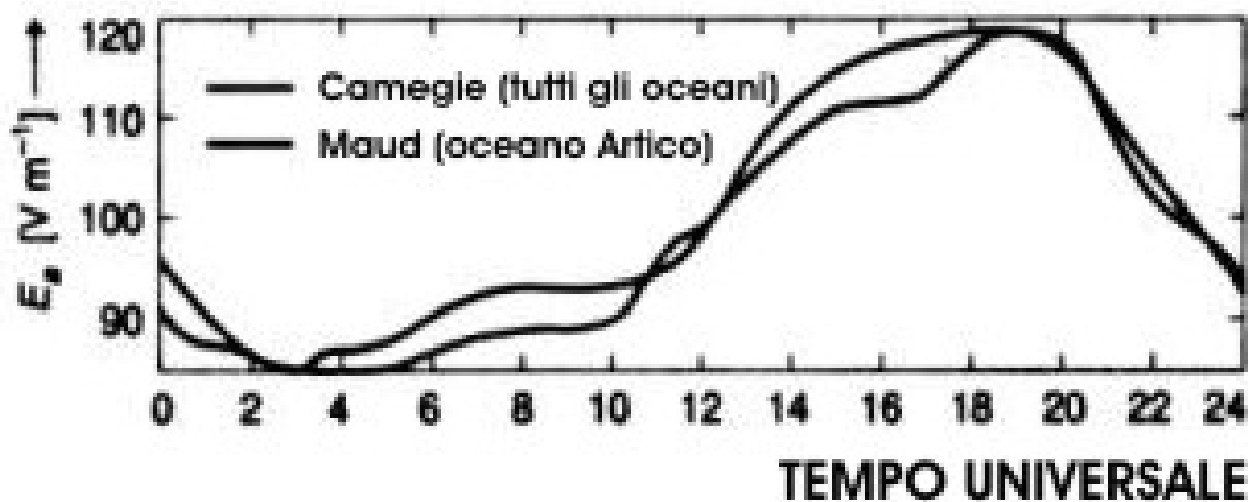
Electric field of the atmosphere in average conditions

The earth has a negative electric charge, as was hypothesized already in the mid-1700s and verified by Peltier in 1836, and its electrical potential increases moving away from the

ground. The average values of this potential and its gradient (variation per unit of height) or electric field, in the absence of perturbations, are summarized in the following table:

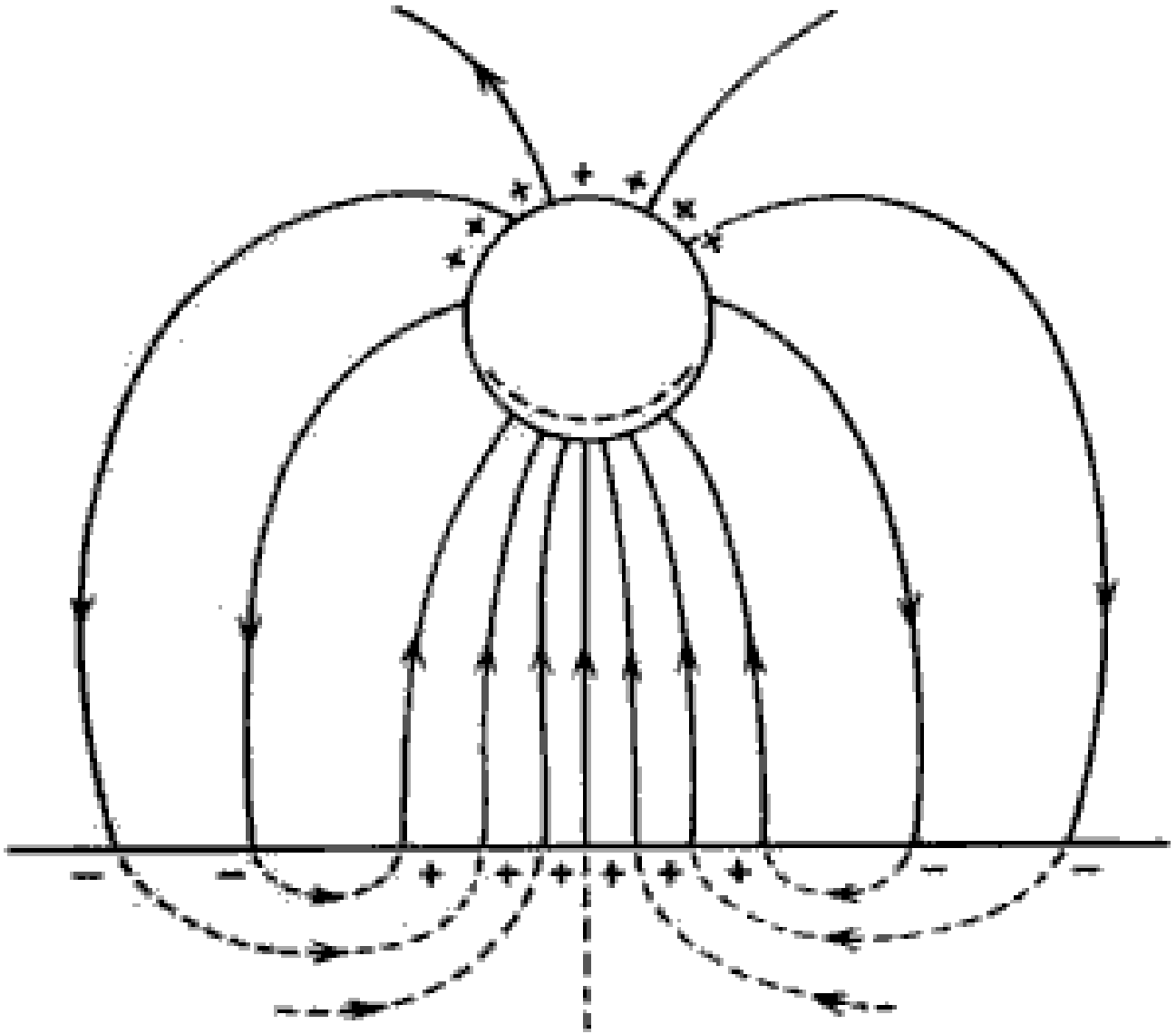
Height (Km)	0	0,5	1,5	3	6	9	12
Field (V/m)	120	50	30	20	10	5	2,5
Potential (KV)	0	45	85	123	168	190	201

assuming, as usual, the soil potential = 0. During the same day, on ocean surfaces, the average electric fields vary with a trend that follows universal Greenwich time with a maximum (approx. 150 V/m) around 7 pm and a minimum (107 V/m) around 4 o'clock (see the figure below).



Variazione diurna media del campo elettrico terrestre su grande scala geografica, misurata a bordo delle navi Carnegie e Maud

On continental areas, local factors determine more complex trends. Diurnal fluctuations of the field also occur in local time with maximums and minimums different from area to area. During the year there is also a variation (stronger on the continents than on the oceans), with maximum values at perihelion (October – March) and minimums at aphelion (April – September)



Electric field in the presence of a thundercloud

(Frenkel)

Punctual checks conducted in the last century have ascertained the following: in storm clouds (generally cumulus clouds) the upper part is positively electrified, the lower part, on the whole, negatively, while the ground below, due to electrostatic induction, takes on a charge positive, thus presenting an inverted potential gradient compared to the normal situation. Its values inside and just below the storm cloud and also on the ground can take on very high values (10,000 V/m and more). The most striking effects of this electrification are the flashes between and within the clouds themselves and the discharges towards the ground, lightning.

The electrification of thunderstorms, with the formation of significant quantities of positive and negative electrical charges, is a phenomenon that occurs through a complex mechanism which, in some respects, is still not completely clarified. Many causes certainly contribute to it: the so-called Lenard effect according to which a drop of water, breaking as a result of strong convective motions, presents positive charges in the larger fragments, negative charges in the smaller ones, the selective capture of ions by the droplets of water and ice crystals, thermoelectric effects, change of state. Ultimately, it is the strong ascending and descending motions and precipitation that allow charge separation and large-scale polarization of the cloud.

The ascending or descending currents carrying ions constitute an electric convection current. But other currents can be highlighted in the storm cloud: a conduction current which manifests itself above all at its top and is directed towards the upper atmosphere, a current from the tips and roughnesses of the ground (usually directed upwards), a current of displacement proportional to the derivative with respect to time of the electrical displacement  $D$ , in addition of course to the lightning and lightning discharges.

### **The problem of the negative charge of the soil**

As mentioned above, globally, the earth has a negative charge (approx. 500,000 coulombs). Taking into account the conductivity of the entire atmosphere due to ionization caused by various phenomena: natural radioactivity near the ground, cosmic rays and the photoelectric elements that act throughout its mass, ultraviolet rays active in its highest part, conductivity that corresponds to a global planetary resistance of approximately 200  $\Omega$ , and the potential difference that exists between it and the ground (on average it presents a negative potential around 300 KV with respect to the ionosphere), a "fair weather" vertical current is generated whose density has an estimated average value of approximately

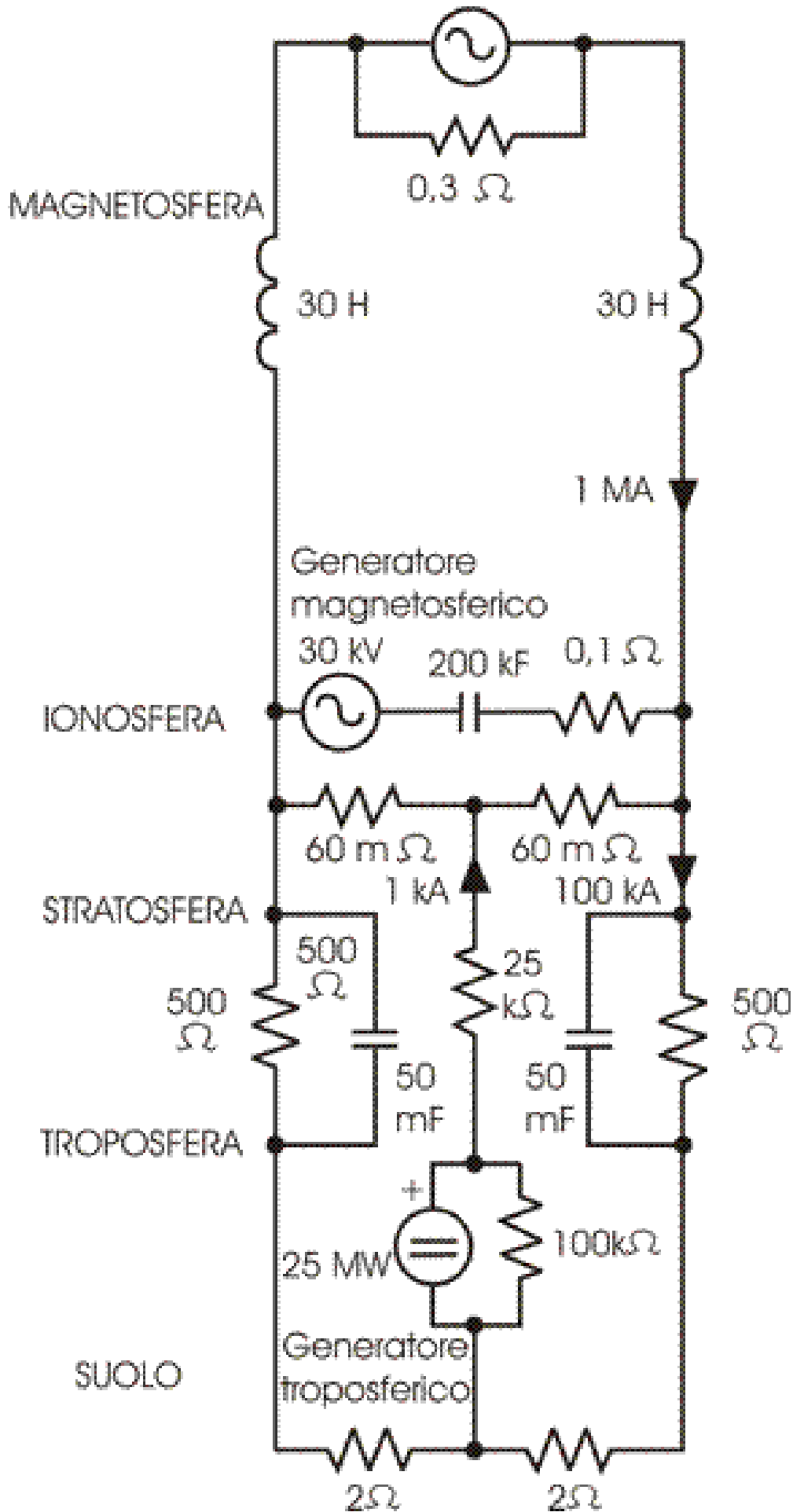
10<sup>-12</sup> A/m<sup>2</sup>, directed downwards. Because of it, the negative charge of the earth could not be maintained except for a very short time (the time of its neutralization is estimated to be less than an hour). The ground must therefore be constantly supplied with negative electric charges and this occurs above all by lightning, as demonstrated by Wilson in 1920. This is also supported by the fact, otherwise inexplicable, that the diurnal trend of the electric field averaged above the oceans which, as we have seen, follows universal Greenwich Mean Time, is very similar to the estimated trend of global storm activity. At any given instant, across the globe, we can count from 1500 to 2000 thunderstorms and between 50 and 100 lightning strikes the ground every second, with a negative charge equivalent to an average current of around 1000 A. This direct current from the ground to the clouds themselves, to which must be added that due to the effluvia from the tips and roughness of the ground, should balance the "good weather" current directed from the atmosphere to the ground. Simplifying, the ultimate mechanism of the transfer of negative charge from the atmosphere to the earth is the following: by electrostatic induction in the area below the storm cell a positive charge is collected which is subtracted from the other areas of the ground causing it to increase there, in the same way. measure, the negative charge. Lightning and effluvia neutralize part of this positive charge. The final balance on the ground is evidently a surplus of negative charge. On the other hand, the same charge surplus, but positive, occurs in the cloud. It will return to the earth with the upward conduction current establishing at its top and that of "fair weather" between the ionosphere and the ground.

### **The tropospheric generator (global static model)**

The phenomena described above can be represented roughly by means of a very simple electrical circuit where the current, positive upwards, induced by the tropospheric generator

represented by thunderstorms with their lightning (and effluvia from the tips and roughnesses of the ground) closes through the stratosphere (resistance of about 25 K $\Omega$ , high, due to the fact that the average area affected by thunderstorms at a certain moment is a small fraction of the earth's surface), the ionosphere of zero resistance, the atmosphere of clear skies (global resistance of about 250  $\Omega$  ) the ground (resistance also set = 0) the column of air from the ground to the base of the cumulus clouds (a few K  $\Omega$ ) and the internal resistance of the cloud (small compared to the total resistance values). The generator itself can be considered a voltage (about 30 MV) or current (about 1 KA) generator. The energy to the generator is essentially given by gravity acting on the ionized drops falling in the cloud and by the upward force of the wind which allows the separation of the charges (ultimately the driving force behind everything is solar energy).

Generatore solare 25 kV





## *Dynamic atmospheric model according to H. Volland*

### **The atmospheric generator (global dynamic model)**

Recently the static model of the global atmospheric circuit has been replaced by more sophisticated (dynamic) models whose main characteristic consists in taking into account all the interactive phenomena between the various parts of the atmosphere, in particular: the fluid dynamic interactions of the ionospheric plasma with the neutral atmosphere, the transport of momentum from the lower atmosphere to the ionosphere and between this to the magnetosphere, the energy supplies, as well as from thunderstorm activity, from magnetospheric activity and from the solar wind (modelled with as many electric generators), the interaction with the ground.

In these models, of which we report alongside the one due to H. Volland, the conductivity of the soil and the upper atmosphere is considered finite and anisotropic. Furthermore, the generator operating in the magnetosphere (30 KV) and that due to the "solar wind" (25 KV)

produce a potential that varies over time from which an also variable current whose low and very low frequency electromagnetic fields can penetrate very deeply into the earth (even up to its internal core), giving rise to induced currents detectable through variations in deep geomagnetism.

### **Part Three**

We saw in the second part how the earth and its atmosphere constitute a gigantic electric capacitor, where the earth's surface takes on the negative charge, the atmosphere the negative one. The voltage at the ends of the plates of this "capacitor" reaches values of 200, 300 kV (between the lower part of the ionosphere and the ground), while the global charge and capacity are on average around  $5 \cdot 10^5$  coulombs and 2 farads, respectively.

The atmosphere is not perfectly insulating and therefore an average electric current, called clear sky current, of around 1000 – 1500 amperes is established between it and the earth; this current in a very short time (much less than an hour) would discharge the terrestrial “condenser” if the ground were not continuously fed negative charges by the storms that incessantly occur in the world, through essentially two mechanisms: the electrical effluvia from the roughness of the ground towards the clouds and lightning.

In this third part we will analyze the morphology and dynamics of flashes and lightning.

## **The Ceraunic level**

As we said, the great terrestrial electrical generator is made up of thunderstorms. Their average annual number in a given locality defines its “ceraunic” level. It is agreed that a thunderstorm has occurred in a station if at least one thunder has been heard.

In Italy the ceraunic level varies between 10 and 40, while the days with thunderstorms range from less than 5 to more than 30 (see Fig. 1 elaborated by M. Bossolasco). The world record is 322 days. of Bogo (Java – Indonesia) in 1916.

### **The storm cloud**

The cloud that produces electrical activity is in the vast majority of cases the electrified cumulus cloud.

The typical distribution of electric charges in this cloud is shown in figure 2.

Three areas can be identified:

- the lower one, made up of water droplets or snowflakes, negatively electrified except for a positively electrified central nucleus

- the central one, made up of ice crystals and/or drops of supercooled water, negatively electrified (constitutes the main negative charge) and the upper one, entirely made up of ice crystals, positively electrified.

A thin negative layer envelops the upper part of the cumulus, perhaps the effect of ionization due to cosmic rays.

By electrostatic induction, as we have already seen, the ground below reverses its polarity and the electric field which in a clear sky is usually negative (about 100 V/m, facing downwards) reaches several thousand V/m (facing upwards). ('high).

Starting from 5000 V/m the asperities of the ground, due to the tip effect, generate effluvia of positive ions which, accumulating in a layer of a few hundred meters thick, somehow limit the increase in the field which nevertheless reaches 15 – 20 kV/m (compared to 50 kV/m and more above smooth surfaces). A part of the ions produced, sucked in by the ascending currents, determines the partial positive electrification of the cloud base.

## The flashes

Lightning is the luminous manifestation of the heating of the air (up to 30,000 C°) in the flow tube crossed by the current of an electric discharge, a current which, unlike that of lightning, does not flow to the ground, but remains confined inside of the cloud or propagates from cloud to cloud.

Three types of lightning can be distinguished:

- The “intracloudy” flash which remains within the cloud and whose trace is not distinguishable from the ground appearing only as more or less intense diffused brightness (photo 1, taken like the others from “L'électricité atmosphérique et la foudre”. Presse

Universitaire de France, Paris 1997)

- The diffuse flash consisting of a succession of “intra-cloud” discharges that slowly propagate on the top of a line of cumulus clouds. Seen from a great distance, this flash is commonly referred to as a “heat flash”.
- The “intercloud” flash, whose trace is always visible from the ground and can reach up to 100 km in length.

The electric discharges strike between the different zones of opposite electrification of the storm cell. The way in which they appear follows the evolution of the cell or different cells that make up the storm: Initially after an electrification phase during which there is no electrical activity and the distribution indicated in the figures above is formed. There are intracloud discharges between the main negative charge and the upper positive charge, often followed by the first lightning strikes to the ground. When new storm cells join the initial one, the intracloud flashes follow longer and more complex trajectories (even 100 km horizontally) and the discharges on the ground become more powerful. Long flashes developed horizontally are also observed when the storm is easing, perhaps due to the lowering of the upper positive charge towards the main negative one which still exists at the base of the most active cell. These flashes end with straight lightning bolts carrying positive charges towards the ground. the storm sometimes ends with one or two powerful discharges to the ground which follow the last visible electrical activity by 10, 15 minutes.

At the top of storm clouds, in very rare cases, electrical discharges directed towards the stratosphere have been noticed with an appearance similar to that of lightning.

Sometimes discharges of diffuse luminosity always originating at the top of the cumulus clouds cross the same stratosphere to gradually vanish. In other cases (extremely rare) similar reddish luminosities penetrate the ionosphere up to 80 km in height.

Still to remember are diffuse blue, green or red discharges that can cover the entire sky without producing any noise. They are perhaps due to vast horizontal electrifications caused by sand particles brought to altitude by hot advections. In fact, they occur above all during storms characterized by the so-called "mud" rains that we also know well in Liguria.

Lightning isn't just related to cumulus clouds; they have also been reported during snow or sand storms as well as during certain volcanic eruptions. Numerous testimonies still report the appearance of widespread brightness, of as yet undetermined origin, during earthquakes (especially in China and Japan).

## **The Lightning**

If the electric discharge reaches the ground, lightning occurs. Lightning represents a significant percentage of the electrical phenomena of a thunderstorm (from 14 to 40% moving from the equator to the 60th parallel).

In Italy the average annual number of lightning strikes that strike the ground varies from 1.5 to 4 per km<sup>2</sup>. In Switzerland between January 1981 and August 1983 there were average values of 4.6 lightning strikes/km<sup>2</sup> on the plateau, of as many as 14 on the southern side of the Alps, with a maximum of 130 at Junhfraujoch (at more than 3000 m above sea level).

## **Types of lightning**

Lightning carries a negative charge towards the ground (negative lightning) but also, albeit more rarely, a positive charge (positive lightning) and is preceded by pre-discharges of ionisation of the air (precursors or leaders) which depart from the cloud and head towards the ground (downward lightning) or vice versa (upward lightning).

Thus they can be classified into four categories:

### **Downward negative lightning**

They make up about 90% of lightning strikes in flat or slightly mountainous terrain. They originate in the main negative zone of the cumulus cloud. They are preceded by a series of pre-discharges of negative polarity which follow one another intermittently (approximately every 50 microseconds), lengthening, sometimes branching considerably, especially in a dry atmosphere, and approaching the ground. These pre-discharges (precursors or leaders), not individually visible to the naked eye, can be photographed on high-speed sliding film (Boys camera). When the ionized pre-discharge tube approaches the ground and on the asperities, effluvia develops with the formation of one or more counter-precursors which move from the ground towards the precursor. Upon contact of the two ionized tubes (sometimes there is contact with multiple ascending counterprecursors and multiple lightning strikes, see the figure) there is the disruptive spark (positive return arc from the ground to the cloud) which constitutes the brightest part of the lightning. The contact occurs between 20 and 50 milliseconds after the start of the pre-discharges. At this point the voltage between the

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ground and the cumulus cloud can reach hundreds of millions of volts, the current even 200 kA (on average 30 kA, maximum observed almost one million amperes) with a derivative (increase per unit of time) which can reach 200 kA per microsecond and a duration of several tens of microseconds. After a fairly short pause, in the same ionized channel, with a diameter of around 2, 3 centimeters, other return arcs are usually formed (from six to twenty), of decreasing power however, and initialized by pre-discharges which are no longer intermittent but unique which they propagate in a few milliseconds. A direct current of low intensity (from 40 to

130 A) frequently follows (50%) the series of discharges, with very long durations, which can exceed 500 milliseconds. It can carry a charge of a few dozen coulombs to the ground, comparable to that carried by actual lightning.

## **Ascending negative lightning**

They are initialized by positive pre-discharges which, starting from the asperities of the ground, with the mechanism seen above, reach the negative part of the cloud. Propagating upwards, the pre-discharges branch out considerably. The positive return discharge from the ground to the cloud, often very bright and branched upwards, ends with the extinction of the branches except the main one which is then subject to a long continuous descending current. duration. These are the lightning strikes from rugged, mountainous terrain, peaks and peaks and those which strike very tall and slender buildings such as towers, electrical pylons, radio antennas, skyscrapers.

## **Positive downward lightning**

They are quite rare and mainly occur during winter or early spring storms. They are particularly powerful and can cause notable destructive effects. They often originate in the upper positive part of the cumulonimbus but sometimes also in the lower positive core and develop even in the absence of liquid precipitation. The progression of the descending precursor occurs continuously, not in spurts as for negative lightning. The return arc, negative, is normally single and is followed by an intense and long-lasting direct current (often greater than 10 kA for a duration of more than 10 milliseconds). The overall current and charge values are usually 10 times those corresponding to negative lightning strikes.

## **Positive upward lightning**

They are as rare as the corresponding downward lightning. They originate in rugged locations where the electrostatic tip effect easily occurs. They are initialized by a negative precursor that proceeds from the ground to the positively charged part of the cloud. The return arc, from the ground to the cloud, is negative.

The ionized channel crossed by lightning almost always extinguishes instantly after the last return arc. In a percentage of approximately 4%, the extinction that begins at the end of the long-duration direct current is progressive and linear. On rare occasions the ionized channel dies out, fragmenting into shreds or bright ovoid grains.

The most severe thunderstorms can produce several lightning strikes per minute (extreme reported values: 20 per minute in the USA; normally 2 to 5 in Europe). While the electrical activity as a whole can be almost

continuous (multiple discharges per second) in particular in supercell thunderstorms or in those characterized by a cold drop at high altitude.

The overall duration of the electrical activity can vary from a few minutes to several hours, for example, during stationary multicellular thunderstorms. Although tropical thunderstorms present a strong overall electrical activity, they are characterized by weak lightning mainly due to the greater height at which the negative charges are located.

## **Appearance of electric discharges**

Ionized channels often appear as a succession of separate segments, connected by more or less marked curves. The length of these segments varies from 5 to 100 m. In any case, the



more intense the discharge. the straighter and less sinuous the canal appears. The overall length of these channels can reach 100 km in the case of intracloud lightning. The lightning channels, on the other hand, have a more limited length ranging from 2 to 20 km, the latter can characterize the lightning (usually positive) generated in the upper parts of the cumulonimbus clouds (normally positive lightning).

As regards the color of the discharges, pink and purple seems to be appropriate for those associated with dry and nearby storms, warm colors (orange and red) with dry and distant storms, light white colors with storms with intense rainfall, blue-grey to distant thunderstorms accompanied by heavy rainfall

## **Duration of flashes and discharges**

It depends on the structure of the cumulus cloud and the intensity of the storm. And as a rule less than the second. An exception is intracloud lightning in thunderstorms with strong horizontal extension whose duration can exceed three seconds

## **The Thunder**

The thunder is due to the explosive expansion of the ionized channel crossed by the electric current of the discharge (in it the temperature can reach 30,000 C°). The tone as well as the intensity of the sound depend not only on the nature of the discharge (a dull and lasting sound is due to inter- or intra-cloud flashes, a dry one to a nearby lightning strike), but also, among other things, on the morphology of the terrain, on the orientation of the ionized channel with respect to the line connecting it to the listening point and on the presence or absence of rain and its intensity.

### **3. The ecological transition based on old or new generation nuclear energy is not compatible with the earth's environment**

From the publication <https://www.mase.gov.it/pagina/fissione-e-associazione-nuclear> e I extract this paragraph which summarizes as much as possible the difference between nuclear fission and fusion.

Nuclear fission is a particular disintegration process during which heavy nuclei, such as those of uranium or thorium, if suitably bombarded with neutrons, split into two fragments, both positively charged, which violently repel each other and move away with high energy kinetics.

With fission, neutrons are also released which can in turn induce other fissions, triggering the so-called chain reaction which, in a nuclear reactor, allows it to be kept running by producing energy continuously and constantly.

In nuclear power plants, the heat developed by fission reactions allows water to be heated until it produces steam. As in conventional fossil fuel thermoelectric power plants (fuel oil, coal or natural gas), the energy released in the form of heat is transformed first into mechanical energy and subsequently into electrical energy: the steam produced in fact drives a turbine which, in turn, starts an alternator.

The fission of 1 gram of uranium produces a quantity of energy equal to that obtainable from the combustion of approximately 2800 kg of coal without the production of greenhouse gases characteristic of fossil fuels.

With around 440 reactors operating in 30 different countries, nuclear fission accounted for 10% of global electricity production at the end of 2019.

Nuclear fusion is the nuclear reaction that occurs in the sun and other stars, with the production of an enormous amount of energy: two nuclei of light elements, such as deuterium and tritium, at high temperatures and pressures, fuse to form nuclei of heavier elements such as helium with the emission of large quantities of energy.

The two nuclei can only fuse at very short distances, for this to happen the speed at which they collide must be very high: their kinetic energy (and therefore the temperature) must be very high. To obtain fusion reactions in the laboratory it is necessary to bring a mixture of deuterium and tritium to very high temperatures (100 million degrees) for sufficiently long times.

At very high temperatures the individual particles of a gas tend to dissociate into the constituent elements (ions and electrons) and the gas transforms into a mixture of charged particles, i.e. a plasma which is the main constituent of stars and the sun. In the sun, which has an internal temperature of 14 million degrees, the fusion reaction of hydrogen nuclei (proton-proton reaction) is responsible for much of the energy that reaches us in the form of heat and light.

To obtain the fusion reaction, the hydrogen plasma must be confined in a limited space: in the sun this occurs due to the enormous gravitational forces at play.

To obtain controlled fusion in the laboratory, with a positive energy balance, it is necessary to heat a deuterium-tritium plasma to much higher temperatures (100 million degrees), keeping it confined in a limited space for a sufficient time so that the energy released by the fusion reactions can

compensate for both the losses and the energy used to produce it.

At such high temperatures the problem becomes how to confine the plasma: since there are no containers in nature that can resist in these conditions, magnetic confinement must be used. The particles are forced to follow spiral trajectories around the lines of force of the field, keeping away from the walls of the container: the hot plasma is enclosed in a vacuum chamber, and a suitable configuration of external magnetic fields and/or produced by currents circulating in the Plasma prevents contact with walls. The tokamak is an example of a plasma vessel: it is a toroidal-shaped device characterized by a hollow casing, the "doughnut", in which the plasma is confined by a magnetic field with spiral lines of force. The European Roadmap towards fusion electricity envisages the construction of the first reactor that feeds electricity into the grid in the second half of the century.

### **3.1 The sustainable alternative to nuclear fission and fusion is the simple extraction of clean energy directly from the environment**

The very expensive and complex tokamak technology, which is difficult to implement, is fortunately not needed, since from what the undersigned has published in previous articles, in the summary and in the previous two paragraphs of this article, both fission and fusion are not compatible with the environment Terrestrial, as our planet has already been prepared by the Creator of the Universe to be energetically autonomous, thanks to the gravitational force, chlorophyll photosynthesis, the carbon cycle. In fact, the Creator of the universe who conceived atmospheric air as not only breathable but also compressible to thousands of bars and water, not only drinkable, but also incompressible and of the right density to be used as an energy carrier where needed, in moment that is needed, at the temperature of the Earth's environment, to replace the steam that should be produced by these reactors to

produce the electrical energy that should then be distributed over the entire planet. Fortunately, the global environmental and energy situation is much simpler than science, at the service of the current global centers of power, wants us to believe, because nature has already done the bulk of the work, as described in the previous paragraphs. The task of the world's scientists and inventors was and is only to interpret scientific principles correctly and develop the right technologies to correctly extract clean energy directly from the environment. In fact, energy on planet Earth is everywhere and must be extracted at the temperature of the terrestrial environment so as not to interfere with the functioning of the electrical and electromagnetic energy already present in the terrestrial environment. In fact, all my activity as an inventor isolated from the world's centers of power, focused first on cleaning fossil energy and subsequently on extracting clean energy directly from the environment, since only by seriously trying to clean fossil energy was it possible identify the interactive scientific principles between water and atmospheric air and also the scientific paradoxes that serve to trigger the aforementioned processes at different operating pressures in fixed and mobile anthropic plants of very small dimensions and very low costs as the raw materials used are supplied free from the earth's environment.

Although my most important inventions have been accused of perpetual motion by the Italian and European patent offices. Although global public bodies, and above all, the United Nations, which organizes COPs and legislates on intellectual and industrial property, to encourage the commercial inventions of multinationals, penalize inventions of public utility, instead of rewarding them, these inventions cannot be hidden forever. The logic of the Creator of the universe is very evident, sooner or later, it must necessarily come out. They cannot stop it, forcing the inventors who understand it first to pay the same patent filing and maintenance fees that they should not have to pay since they are of public social

utility. Current laws favor polluting, obsolete and other inefficient inventions that they call renewables. However, in the laboratories of public and private centers of power, futuristic solutions such as the new nuclear fusion with the related magnetic confinement are being studied, in total contrast with the real technological level of science and technology.

In the current world situation only a madman can be an inventor against the economic power of multinationals and the one-way patent trade of public bodies towards multinationals permitted by governments, which exclude inventors not linked to the centers of power. I am proud of having been an independent madman because I believed more in God's science, which is logical and linear. It does not require mathematical formulas but careful observation of natural processes and continuous updating of technological development, which as a technical designer and installer of industrial and environmental anthropic systems, with over fifty years of experience, no one can underestimate. I'm still waiting to be believed or denied on a technical and scientific level because I don't know that any of my forty inventions of public utility have ever been taken into consideration. In the meantime, I take the satisfaction of saying that my solutions are the only ones that do not interfere with the normal functioning of the earth's natural energy and electromagnetic system that connects the ionosphere with the earth's surface, without emissions of steam, CO<sub>2</sub> and interference due to current electricity transmission lines. Which will increasingly increase with nuclear energy. Furthermore, I do not exploit the ionic characteristics of air and water, but only the physical characteristics, as compressed atmospheric air is a very powerful energy accumulator that can be compressed even to thousands of bars. While incompressible water is a very powerful, perfectly clean energy carrier, 830 times denser than air and polluting combustion fumes, which are used today to produce thermal energy. Therefore, with the same pressure

and flow rate of the energy carrier, using water we can produce a quantity of energy 830 times greater than the current heat engines that power electricity generators and with immensely lower production costs, since both the air , both water cost nothing. The synergy between the characteristics of water and atmospheric air is the winning key for the world's energy future. It is no coincidence that I chose the name SPAWHE for my website, where the letter S means synergy.

**[https://www.SPAWHE.eu](https://www.spa whe.eu) is the acronym for "Synergic Plants, Artificial Welling,**

Hidroelectromagnetic Energy". This website is a collection of unrealized inventions that could have almost automatically led to the protection of the environment and the production of sustainable energy extracted directly from the environment through simple scientific principles and simple technologies overlooked by the scientific advisors of governments and multinationals and defined "perpetual motion" by the bureaucrats of the national and international patent offices, who through the WIPO (World Intellectual Property Organization), represent the United Nations, which organizes the conferences between the COP parties which for twenty-eight years have been discussing for about ten days to agree common strategies to combat global warming. How can the United Nations organize strategies to fight global warming if through WIPO they define "perpetual motion" the inventions that could extract energy from the environment? At the same time, do they demand from inventors the payment of filing and maintenance fees for the patents they grant without helping them in the testing of sustainable inventions that are of no interest to multinationals who only think about profit and not common well-being? If these contradictions are not resolved, the problems of global warming cannot be resolved.

In essence, I assert that on planet Earth, we have developed good technologies, but we have made mistakes in the most

important ones, which would have allowed us to extract clean energy directly

from the environment, in fixed and mobile anthropic plants. In particular, the natural, chemical, physical and biological interactive principles, partially identified by scientists of the generations preceding the industrial one, such as Torricelli, Newton, Pascal, Henry, Dalton, Venturi, have been neglected. These principles, which the undersigned, without economic means, has tried in vain to reevaluate, could have easily dialogued with the electromagnetic inventions of Ferraris, Tesla, Maxwell, Lorentz, to extract clean energy directly from the environment without any extraction from the subsoil, industrial transformation, distribution to energy use points. So, we could say that most energy inventions have been wrong as they have produced more harm than good to the environment, apart from electricity. Which, however, to be truly useful to the environment, would have to be produced and used directly on the site where it is produced or on the means of transport that produces it internally, transmitting to the outside only the physical force necessary for moving or carry out agricultural and construction work, without interfering with global terrestrial energy illustrated very well in the previous chapter, not with the words of the undersigned, but with those of the speakers from the University of Bologna in the academic year 2012 – 2013. The same thing it can also be said for the much shorter research article published in the previous pages (<https://skepticalscience.com/translation.php?a=19&l=17>), also extracted from the internet. These two articles, although not updated with current data, demonstrate that water vapor and the amount of CO<sub>2</sub> in the atmosphere influence each other and their increase in the atmosphere is caused by plants designed by men. If we consider that the percentage of CO<sub>2</sub> in the atmosphere before the industrial era was 278 ppm and today it is 420 ppm, we can deduce that the volume of vapor in the atmosphere has also increased in even greater proportions, since, in addition to the fixed and



mobile heating systems, there are also nuclear power plants, which do not emit CO<sub>2</sub>, but immense quantities of steam. We all know that the CO<sub>2</sub> molecule is non-polar and therefore does not break down due to electrostatic effects, but only through inorganic chemistry, which practically does not exist in the atmosphere. Therefore, the real cause of storms and water bombs are due to the water molecules contained in the atmospheric air, which polarize into H<sup>+</sup> and OH<sup>-</sup> ions, even if they appear in the clouds as drops of water or ice, these retain a density much higher than atmospheric gases (just think that the density of water at room temperature is 830 times higher than air). We know that the fluid dynamic force is given by the product of pressure exerted by the energy source due to the density of the energy carrier, therefore the force that produces damage on planet Earth is proportional to the quantity of water contained in the volume of air that moves by means of global terrestrial electrical energy, which is an immense phenomenon electrostatic which, as written in the aforementioned article, produces approximately 1500 on Earth lightning strikes per second, with current values varying from 10 to over 200 KA. These natural phenomena, which have increased due to the immense quantity of steam produced by human inventions, cannot be fought by allocating billions of dollars or euros to repair the damage, but above all by changing the way of designing the systems of the future scientifically and technologically. I don't understand the reasons why the entire world of science hasn't reached the same conclusion as me. That is, that it is necessary to cold extract electrical energy from the terrestrial environment. But above all, producing it on site, where it is needed, at the time it is needed, in fixed and mobile systems, at the desired voltage, frequency and current intensity, without the current transport of electricity on pylons, exposed needlessly to the atmospheric environment. Above all, we must ask ourselves why electricity production plants are still thermal and nuclear, and require raising the voltage up to 380,000 V (380 kV) for transport, and then distributing it through

transformation substations to networks with voltages lower and to voltage reduction cabins for industrial or domestic use. A large part of the energy transport, especially in high voltage, takes place on pylons in direct contact with the Earth's atmosphere, which alone produces lightning and flashes due to the natural electrical fields of the Earth.

The figure below shows the simplest way of extracting energy from the environment without the hydraulic head in a reservoir at atmospheric pressure.

It is sufficient to put a submersible pump in series that pumps downwards, in the direction of the gravitational force above a turbine connected to an electric current generator. The quantity of energy produced by the current generator is equal to the flow rate  $m * g * h$ , while the quantity of energy absorbed by the pump is very low as it only has to overcome the pressure drops of the descent pipe and those at the outlet of the V2 turbine  $/2g$ .

**SYNERGIC PLANT, ARTIFICIAL WELLING , HYDROELECTRIC ENERGY**

The submerged hydroelectric plants in the lake and sea, in addition to producing energy with lower cost, oxygenate the seabed and increase fish production. This energy exploits the energy position of surface water intubate ( $m * g * h$ ) and the fact that at the turbine outlet have only the small pressure drop of the residual velocity ( $v^2 / 2g$ ). I do not understand the reasons why the world prefers dirty energy such as fossil and others with very low yields such as solar and wind power from the point of view of the environment is at best neutral and it neglect the energy that would not only yields very higher, using the energy of position of surface water that turns into kinetic energy the whole mass of water ducted having even important environmental benefits.

Submerged hydroelectric energy with seabed oxidation

[WWW.SPAWHE.EU](http://WWW.SPAWHE.EU)  
Luigiantonio.pezone@gmail.com

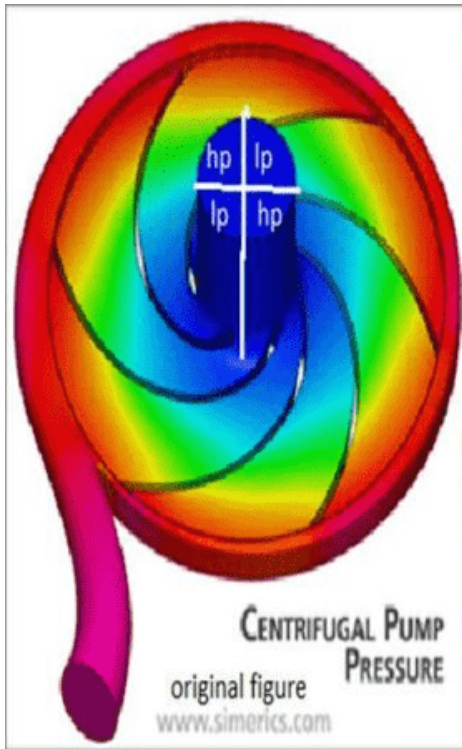
The figure below shows the operating diagram of a centrifugal

pump with the dual separate power supply up to the impeller inlet. Lp indicates low pressure and hp indicates high pressure. It is essential that the two flows lp and hp do not meet before entering the rotating impeller as it is the rotation of the impeller that first allows the low pressure water to enter due to the centripetal force exerted at the center of the impeller due to the high speed of the flow (Venturi effect) and subsequently, the mixing of the two flows due to the slowing down of the speed and the expansion of the pressure (Pascal effect). Therefore

the two flows come out of the single pump outlet with a single pressure, which is the higher one.

This system allows you to dynamically obtain the pressostatic balance between the water that must be inserted back into an autoclave after it has been used to produce hydroelectric energy in fixed and mobile plants by means of the pump with the double separate power supply up to the impeller still misunderstood by world science to recycle 100% of the flow rate in the autoclave,

while only 50% was passed through a turbine to produce electricity.



hp = high pressure = alta pressione  
 lp = low pressure = bassa pressione

<http://www.spawhe.eu/relativity-and-technology-in-the-new-hydroelectric-energy/>

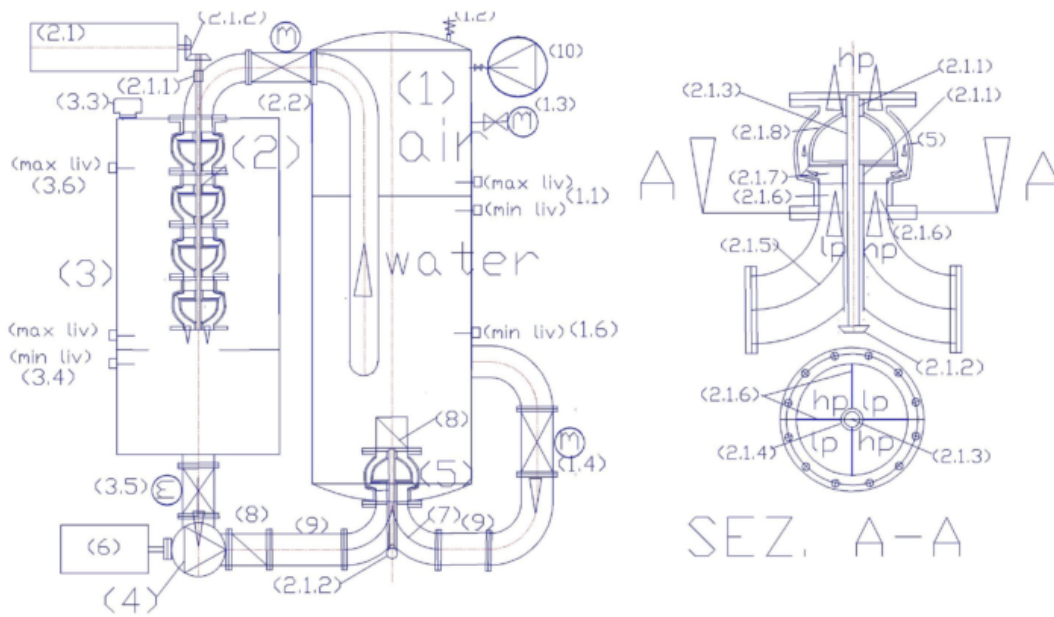
In the pumps, the centrifugal force, having radial direction, creates a depression capable of attracting the liquid intubated, external to the pump. The low pressure area is at the center of the impeller, is called "eye of the pump" is colored in blue on the attached drawing and corresponds to the input of water into the impeller. In the green zone begins the pressurization of the liquid, which is completed in the red zone. It 'clear that if we feed a pump with two flow rates equal but different geodetic heights, we have a considerable energy saving because it is the water from the upper reservoir, which can be recycled, to raise the water from the lower basin, by means of mixing water and the expansion of the greater pressure that happens in green and red area. Obviously, with this solution, they do not serve multistage pumps and motors of great power, but single-stage pumps with double flow and small power engines , dimensioned for water recycling, and not for lifting. If we divide the two flow rates in four areas, arranged diagonally, also we balance the forces on the bearings. Each sector is always powered with the same water, but the rotation of the impeller allows the flow sequence on the same blade so that the one with greater hydrostatic pressure to push the one with lower pressure. In essence, it is what happens in multistage pumps but with lower costs in the construction of pumps, motors and absorbed powers. But the dual supply pumps, coupled to the turbines also allow the production of energy with the recycling and the water lifting. However, it seems that the pumps with dual power does not affect the authority of the environment, the pump manufacturers and investors in general. They find not investors.

Nelle pompe, la forza centrifuga, avente direzione radiale, crea una depressione capace di richiamare il liquido intubato, esterno alla pompa. La zona di depressione è al centro della girante, è chiamata "occhio della pompa" è colorata in blu sul disegno allegato e corrisponde all'ingresso dell'acqua nella girante. Nella zona verde inizia la pressurizzazione del liquido, che si completa nella zona rossa. E' evidente che se alimentiamo una pompa con due portate uguali ma battenti diversi, abbiamo un notevole risparmio energetico perché è l'acqua del bacino superiore, che può essere a riciclo, a sollevare l'acqua del bacino inferiore, per mezzo della miscelazione dell'acqua e l'espansione della pressione maggiore che avviene nella zona verde e rossa. Ovviamente, con questa soluzione, non servono pompe multistadio e motori di grande potenza, ma pompe monostadio con portate doppie e motori di piccola potenza, dimensionati per il riciclo dell'acqua, non per il sollevamento. Se dividiamo le due portate in quattro settori, disposti in diagonale, equilibriamo anche le spinte sui cuscinetti. Ogni settore è alimentato sempre con la stessa acqua, ma la rotazione della girante consente la successione dei flussi sulla stessa pala in modo che quello con maggiore pressione idrostatica spinga quello con minore pressione. Nella sostanza, è quello che avviene nelle pompe multistadio ma con minori costi nella costruzione delle pompe, dei motori e delle potenze assorbite. Ma le pompe con doppia alimentazione, abbinata alle turbine consentono anche la produzione di energia con il riciclo e il sollevamento delle acque. Tuttavia, sembra che le pompe con la doppia alimentazione non interessino le autorità dell'ambiente, i costruttori di pompe e gli investitori in generale. Esse non trovano investitori.

The figure below is nothing more than the scheme of a generic power generator that could be mounted on any means of transport, or be installed in a fixed version anywhere on planet Earth to extract clean energy directly from the environment that has no found public and private interlocutors

worldwide. The silence on this figure demonstrates the current connivance of global public and private science against inventors not linked to the economic centers of power and the absence of an experimental body above the parties which should be created by the United Nations, which instead organizes the COPs and ask private inventors for patent filing and maintenance fees, which obviously they cannot pay if they do not find financiers. Much less can inventors create such important inventions of public utility on their own by giving up their family life and also giving up developing other similar ideas to concentrate on a single project. This is the reason why the undersigned preferred to create a website where he published in chronological order his alternative inventions to the current development model, which are around forty and have received the same silences, waiting for a new generation to emerge that instead of holding conferences that are more political than technical, they should go into the details of the solutions and advance the state of the art of science and technology globally according to a scientific organization of work that simultaneously takes into account both environmental and economic aspects.

<http://www.spawhe.eu/the-energetic-miracles-of-pumps-with-separated-double-supply-until-to-the-impeller/>



**PRESSURISED RECIRCULATING HYDROELECTRIC GENERATOR FOR INDEPENDENT MOTORIZATION WITHOUT FUELS OF AUTO, TRUCKS, BUS, TRAINS, SHIPS, AIRCRAFT.**

Legend : (1) autoclave pressurized tank; (1.1) level regulator with capacitive probes; (1.2) safety valve; (1.3) manometer with shut-off valve; (1.4) motorized valve flow control with position transmitter; (1.5) pressure or flow transmitter; (1.6) minimum level probe in the start system; (2) pump used as a turbine (pat); (2.1) alternating current generator; (2.1.1) bushing with sealing ring; (2.1.2) angle diverter with conical gears; (2.1.3) transmission shaft; (2.1.4) transmission shaft protection tube (2.1.5) double curve with septa crossed separators in low pressure (LP) and high pressure (hp); (2.1.6) septa separators of flow; (2.1.7) closed type; (2.1.8) Diffuser of the pump; (2.2) motorized valve to supply turbine with flow adjustment; (3) water transit tank at atmospheric pressure and containment pat; (3.1) motorized valve to feed pressurized water network; (3.2) motorized valve bypass supply at low pressure; (3.3) air valves; (3.4) Water level control with capacitance probes; (3.5) motorized valve for water supply at low pressure; (3.6) maximum level probe in the start system; (4) electric pump to supply in low pressure (5) electric pump with double separate supply until the impeller; (6) pump drive motor, with variable speed, controlled by an inverter; (8) check valve. (9) flow diverter stub pipe; (10) electrocompressor;

The current powerful men of the Earth have not invested even a dollar to verify with a banal experiment the possibility of extracting energy from the environment for free. I didn't do it personally just because I started being an inventor as a pensioner, with a limited life expectancy. I'm not interested in economic success but in promoting new ideas of interactive connections between various purifying energy inventions which until now no one thought. If I had only concentrated on

creating the pump with the dual separate power supply I would not have had time to think about subsequent inventions that could also take us into space without fuel and nuclear energy.

With the systems that I have proposed and described we can purify and produce energy without economic costs because on planet Earth everything is interactive at the natural terrestrial speed.

World science had to trust terrestrial nature more and search for the key to locally triggering interactive processes at a higher speed on terrestrial soil, in waters, and in the atmosphere. It is no coincidence that my website was born in 2014, with the acronym SPAWHE (Synergic Plants, Artificial Welling, Hydroelectromagnetic Energy). This acronym meant that I had finally identified this key after nine years of interactive inventions in purification treatments between water and air that science has never rationally put together to simultaneously clean combustion fumes and organic sewage in sewer systems and purifiers. In fact, I realized that if I turned the water circulation pumps upside down and made them work in the direction of the gravitational force, instead of consuming energy to lift the water, they could produce it by placing them in series with another pump or a connected turbine. to a power generator. In fact, in 2015, I invented the pump with separate double power supply up to the impeller which has the potential to trigger interactive purification and energy processes even in mobile systems. Today, without public and private world science having lifted a single finger in favor of triggering interactive processes, we have the intellectual potential to export terrestrial interactivity into space and travel there too without fuel and nuclear energy, simply by adding together the push of Newton and Lorentz, with immense economic advantages and above all for human health, as this energy, being breathable by men, will make it possible to pressurize the cockpits of astronauts and travelers to the same pressure we have on Earth without

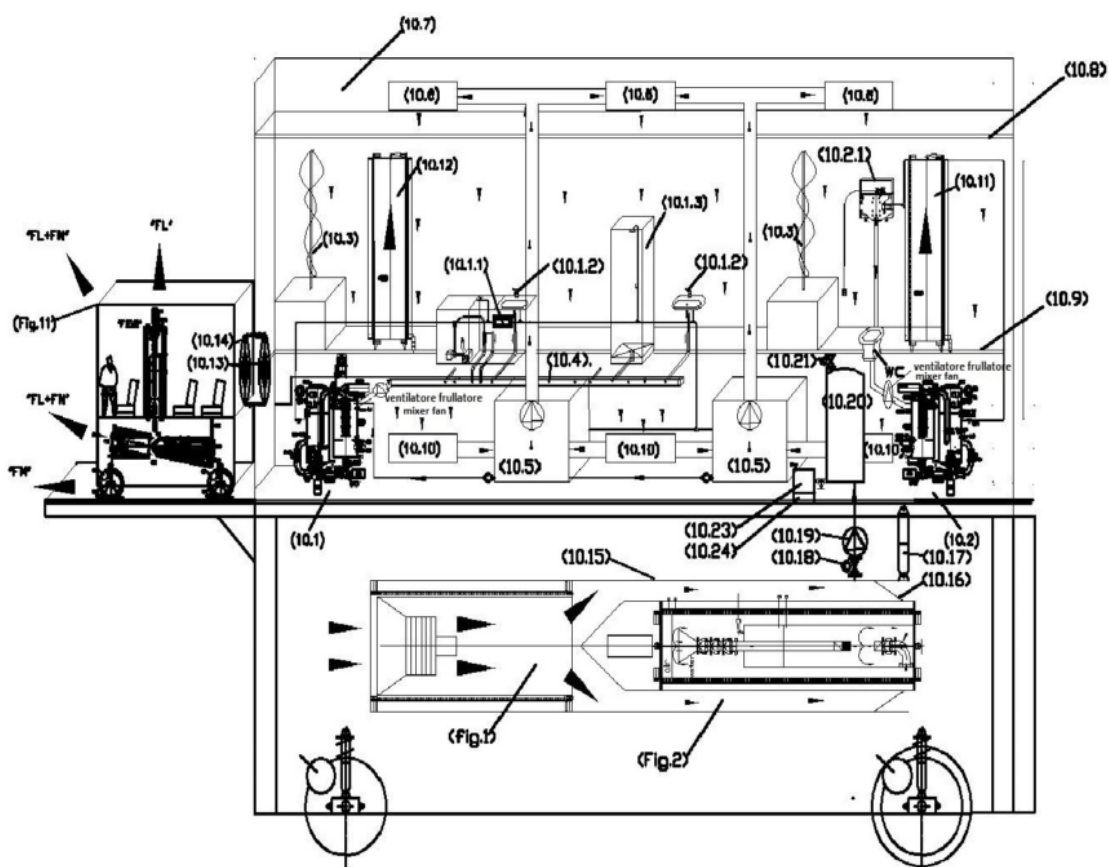
getting sick from osteoporosis and heart disorders. In fact, if it is true that we cannot produce a mini gravitational force in space for each spacecraft or spaceship or space container, we can at least start from Earth with these means of transport full of atmospheric air at atmospheric pressure and conserve this reserve by purifying it from CO<sub>2</sub> for the entire journey, integrating it by means of artificial chlorophyll photosynthesis with other air while producing hydroponic food plants since we cannot practice traditional agriculture in space. From my point of view, the space race should have been the litmus test of current world development. Instead, the race also started with wrong inventions, thermal and nuclear, which by not exploiting terrestrial interactive principles are not part of our DNA and are already destroying the planet in less than two hundred years of completely wrong industrial development, as far as the choice is concerned of the primary source of energy. While electricity is certainly the most important of the induced energies. However, this induced energy will never be able to take us into space if it is not completely separated from the heat sources which prevent the Newton and Lorentz thrust from being added together due to the obvious problems caused by the high temperatures, bulk and weight of the systems. cooling and purification systems and fuel tanks. But above all, due to the fact that nuclear thermal energies are consumed, are not breathable nor can they be drunk and eaten by men, while water and atmospheric air can be infinitely regenerated and also produce human food. Therefore, in the last two centuries the political, scientific and economic ruling class has completely gotten scientific and technological development wrong, both from an environmental and economic point of view and continues to make mistakes with the presumption of bringing this system into space without having any possibility of guaranteeing the survival of human beings also from a physiological point of view. Quite the opposite of the interactive energy of the undersigned which is not only breathable and drinkable by man, it could also extend human life with the energetically



autonomous blood oxygenating artificial heart which is another invention of the undersigned, which would be nothing other than the miniaturization of two very small systems with pressurized autoclaves, mini turbine with power generator and recycling pump with double separate power supply up to the impeller. One would replace the right ventricle and one the left.

Current space science probably still hasn't thought about how the environments in which astronauts' families should live could be conceived, while the undersigned when he filed the patent **29.07.2021** <https://www.spawhe.eu/interstellar-dust-capture-system-and-space-environmental-plants/> my European patent came to mind, which no one has ever financed. Which pleased Professor Luigi Caponetto, former president of Enea who invited me specifically to discuss it at their headquarters in Florence in 2009. Unfortunately, as I said in previous articles, Professor Caponetto was replaced as president of Enea and whoever replaced him as president The organization's leadership was not interested in my solution. However, that project is still valid and especially in space anthropic systems it would be indispensable combined with the equally indispensable pressurization of the environments to atmospheric pressure and the circulation of air in the sense of the universal gravitational force, which could be reinforced with the invented dynamic fluid circulation of the signed after the invention of the pump with the double separate power supply up to the impeller which would allow us to use the toilets, the water taps and the toilet as we use them on earth by means of the depression that we can create on the toilet waste collection manifold and to the toilet discharge by means of a small blender mixer which would convey the sewage into the low pressure tank which feeds one of the two suction bowls of the pump with the separate double feed up to the impeller, which allows the insertion of used water and faeces blended in the recycling circuit of the pressurized water to be purified. As we know, today spaceships pee in

special closed containers so that it can be recovered and recycled in a special plant. While feces are made in special plastic containers which are periodically dispersed into space. With my system, still looking for terrestrial financiers, we could also solve the problem of space toilets by producing organic fertilizer for the aforementioned space hydroponic crops. The figure below shows a space container with toilets, where by enlarging the figure you can see the insertion of the blender mixer or mixer fan.



"FIG.10"

The current centers of earthly power centers are aligned on opposite sides but use the same energy sources and the same weapons of destruction. None of the 196 sovereign states has spent a single euro to verify whether it is possible to extract energy from the environment for free and create work for everyone, starting from the demolition of the wrong fixed and mobile energy systems and correcting the purification

ones. We must not forget that the basic energy system proposed by the undersigned has the potential to be miniaturized, to create artificial hearts that will produce energy internally to the human body by oxygenating the blood and consequently extending human lifespan. Potentially, we could do without organs that today are essential for breathing and digestion. In the future, elderly people will be able to feed themselves with physiological solutions, move with artificial limbs, see with cameras, speak and listen to many languages with artificial intelligence. All these future advantages are today boycotted by science linked to the centers of power, by entrepreneurs who have invested in obsolete technologies and by governments who have allowed the current trade in patents, which is one-way, from public to private. Therefore, global public science does not play the impartial role it should have on behalf of the entire world population. This is the only reason why I am still alone in talking about interactive energy, after having applied it virtually everywhere in domestic, sewerage and urban systems, urban, river and marine purification plants, desalination plants, artificial welling, water and energy distribution, transport terrestrial, marine, submarine, aeronautical and space. I conclude this article by reporting only the figures of the articles published in chronological order in the SPAWHE.eu nursery rhyme which represent a virtual advancement of the purification and energy state that world governments and the United Nations have never wanted to experience. Indeed, they have hindered them at a legislative level, demanding the payment of taxes on patents granted that have not been financed by anyone and refusing the granting of patents with arguments that are not scientifically correct, such as the accusation of perpetual motion.

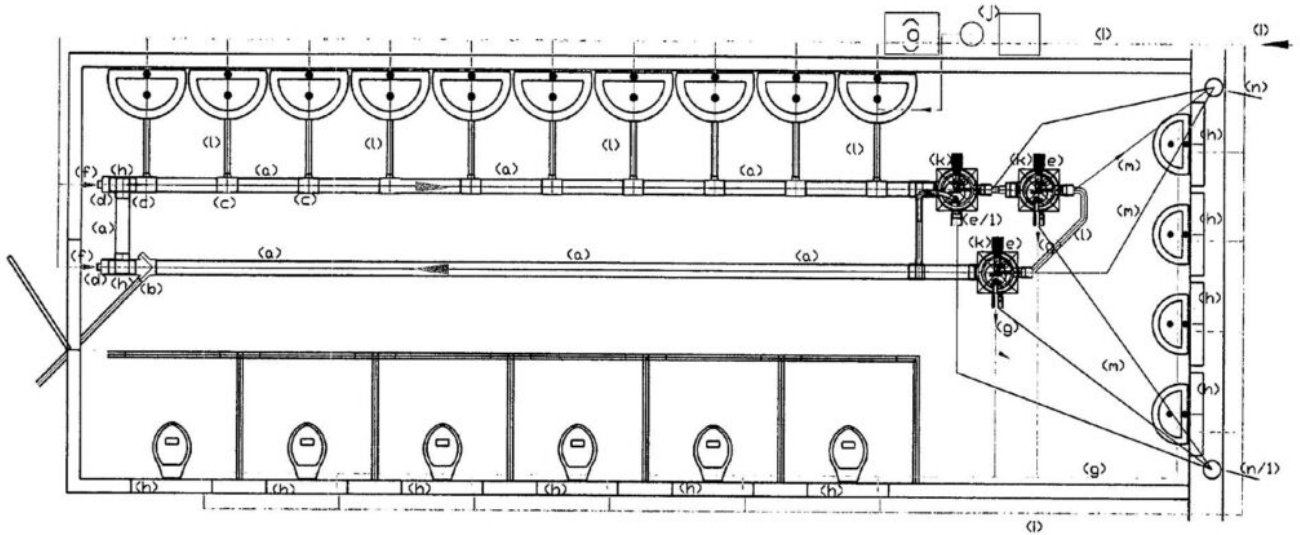


FIG.1 - LAYOUT OF A WATER RECLAIM SYSTEM WITH MAXI BOXES FOR A PUBLIC PLACE

*Layout di un sistema di recupero e depurazione acqua per servizi igienici con maxi box per un luogo pubblico -Layout of a water recovery and purification system for toilets with maxi boxes for a public place*

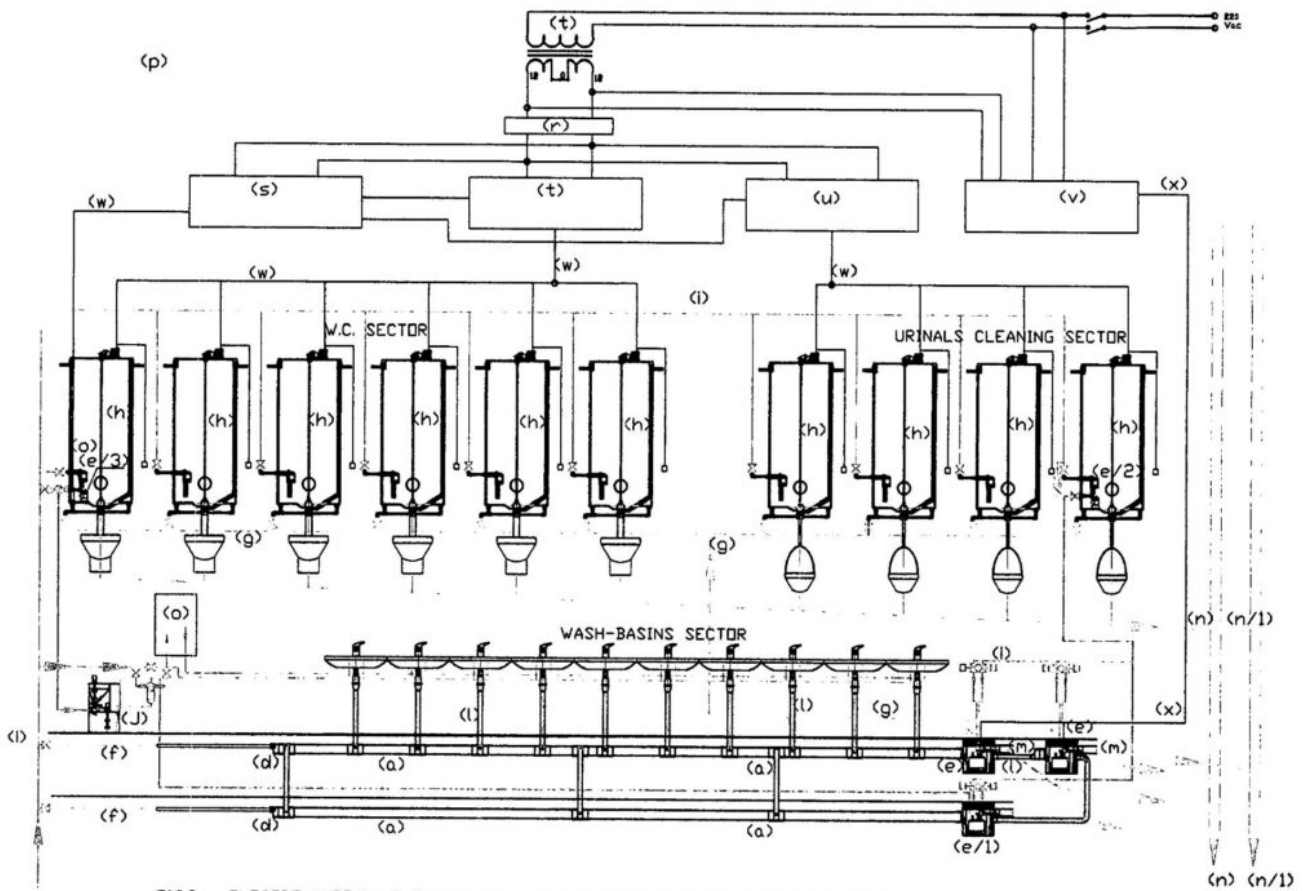


FIG.2 - ELECTRO-HYDRAULIC SCHEME OF A PUBLIC RECLAIM SYSTEM WITH MAXI BOXES

*Electro-hydraulic diagram of a water recovery and purification*

*system for toilets with maxi boxes for a public place*

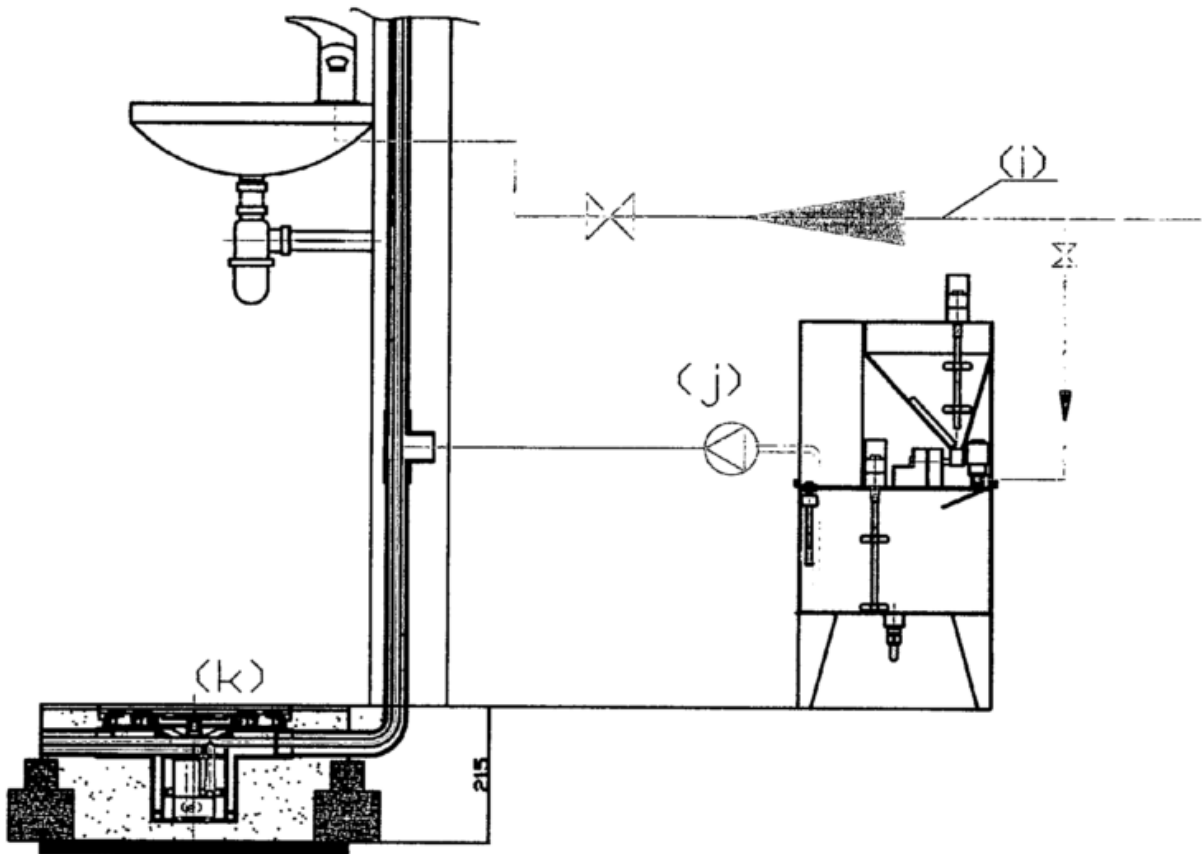


FIG. 8 (b) - LIME DOSING SCHEME

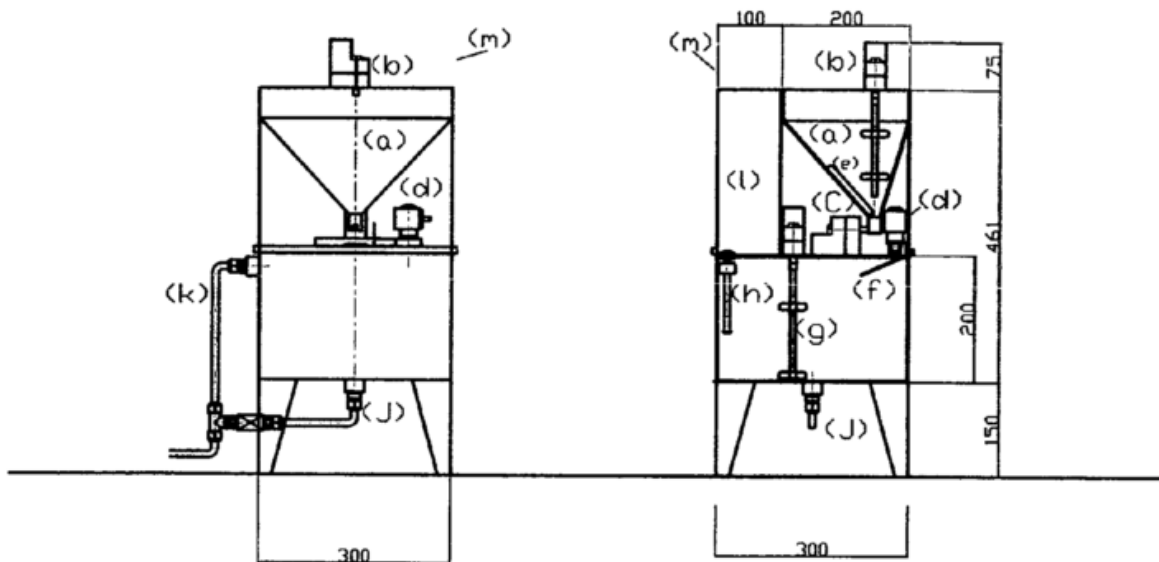
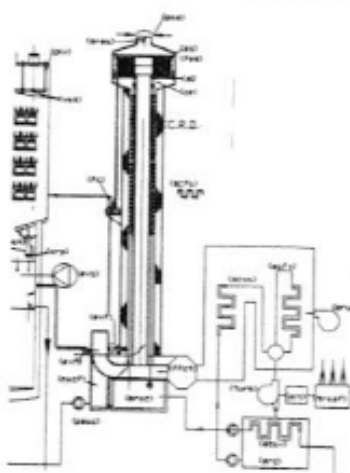


FIG. 8 (a) - VIEW AND SECTION OF THE HYDRATED LIME DISSOLVER

Scheme of a wastewater calcium dosing system through toilets with maxi boxes to prevent the formation of hydrogen sulphide in the sewers.

<http://www.spawhe.eu/phosphor-removal-from-detergents-wastewater-and-greywater-recycling-system-for-flushing-toilets/>

**PROSPETTO MODULO A**  
**DOMANDA DI BREVETTO PER INVENZIONE INDUSTRIALE**

NUMERO DI DOMANDA: <b>EE 2012/00008</b>	DATA DI DEPOSITO: <b>19/11/12</b>			
<b>A. RICHIEDENTE</b> COGNOME E NOME O DENOMINAZIONE, RESIDENZA O STATO PEZONE LUIGI ANTONIO RESIDENTE IN VIA CASERTA, PARCO VEREDE, N 5 - SANTA MARIA CAPUA VETERE - CASERTA - ITALIA				
<b>C. TITOLO</b> CIMINIERE DI CATTURA, RAFFREDDAMENTO E DEPURAZIONE FUMI				
<b>E. CLASSE PROPOSTA</b>				
SEZIONE	CLASSE	SOTTOCLASSE	GRUPPO	SOTTOGRUPPO
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>O. RIASSUNTO</b> Allo stato dell'arte le ciminiere sono una semplice via di fuga dei fumi verso l'atmosfera, essendo la depurazione dei fumi delegata ai sistemi di filtraggio incorporati negli impianti termici, in genere, costituiti da filtri a ciclone ed elettrostatici, mentre il raffreddamento dei fumi è affidato, in parte a scambiatori di calore che preriscaldano l'aria comburente che alimenta i bruciatori o focolai e in parte all'altezza della ciminiera. Il CO <sub>2</sub> , non può essere eliminato dai sistemi di filtraggio, pertanto, le ciminiere, sono progettate e dimensionate soltanto in base a dei principi fisici che regolano la fuoriuscita dell'aria attraverso una sezione di passaggio, più o meno lunga, in funzione della differenza di temperatura tra l'interno e l'esterno e della portata di fumi da evacuare. Il sottoscritto, invece, affida alle ciminiere il compito di recupero del CO <sub>2</sub> e del calore da sfruttare ai fini ambientali ed energetici trasformando gli impianti termici attuali in impianti di "depuracogenerazione termoelettrica globale. Le ciminiere (CRD), pur continuando ad essere dimensionate con i criteri attuali per l'evacuazione dei fumi dai focolai termici, naturale o forzata, saranno modificate a partire dall'estremità superiore della canna fumaria per riportare verso il basso i fumi e in questo percorso di discesa consentiranno una ulteriore filtrazione e un ulteriore raffreddamento per la cessione di una parte del calore all'acqua che sarà impiegata nel processo successivo insieme ai fumi stessi e al CO <sub>2</sub> . Le nuove ciminiere assomiglieranno a una torre piezometrica non emetteranno CO <sub>2</sub> e gas tossici nell'atmosfera, ma richiameranno al loro interno aria atmosferica che contribuirà al raffreddamento.				
<b>P. DISEGNO PRINCIPALE</b>				
				
FIRMA DEL / DEI RICHIEDENTE / I <i>Pezone Luigi Antonio</i>				

Ciminiera di cattura raffreddamento e depurazione fumi -

# Cooling capture chimney for fume

**PROSPETTO MODULO A**  
**DOMANDA DI BREVETTO PER INVENZIONE INDUSTRIALE**

NUMERO DI DOMANDA: PE2012A000009 DATA DI DEPOSITO: 19/11/12

**A. RICHIEDENTE/I** COGNOME E NOME O DENOMINAZIONE, RESIDENZA O STATO.  
PEZONE LUIGI ANTONIO RESIDENTE IN VIA CASERTA, PARCO VERDE, N.5 - SANTA MARIA CAPUA VETERE - CASERTA - ITALIA

**C. TITOLO**  
IMPIANTO SINERGICO DI DEPURCOGEPRODUZIONE TERMOELETRICA COPERTA GLOBALE (D.C.P.T.C.G.)

**E. CLASSE PROPOSTA**

SEZIONE	CLASSE	SOTTOCLASSE	GRUPPO	SOTTOGRUPPO

**O. RIASSUNTO**

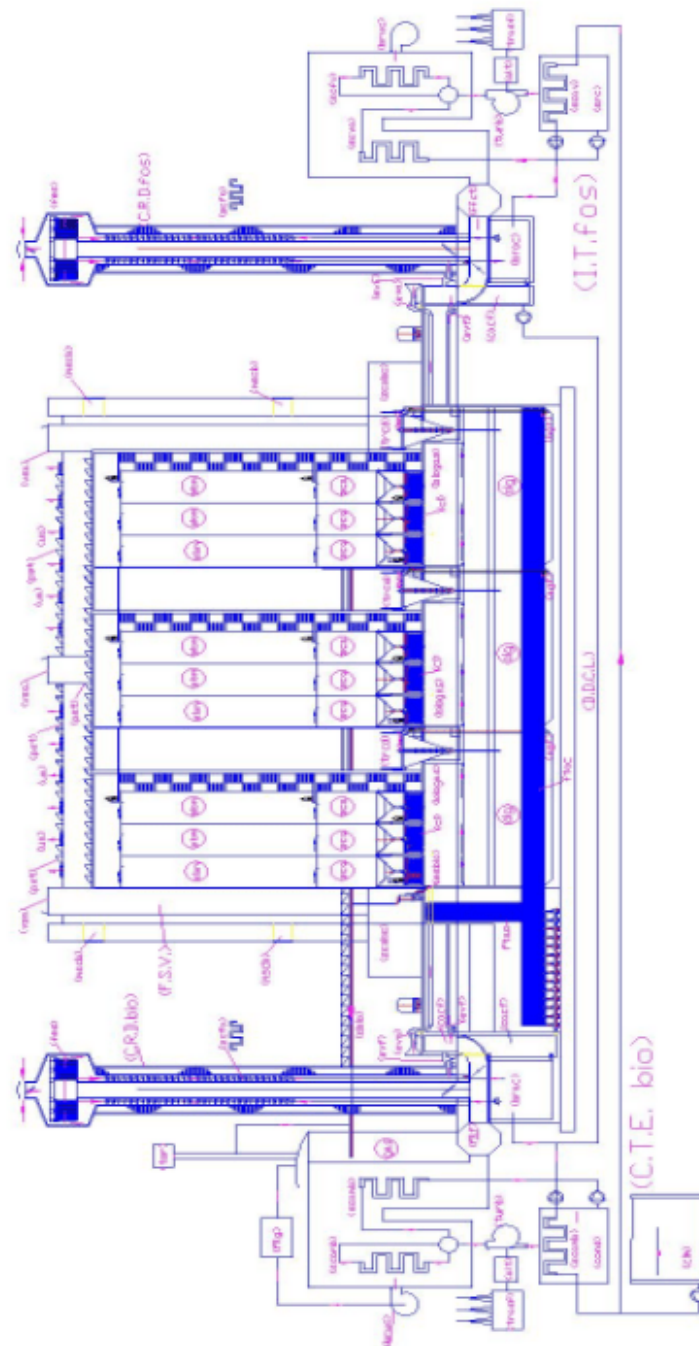
Allo stato dell'arte gli impianti termici e le centrali termoelettriche, sono una grande fonte di inquinamento dell'atmosfera per le sostanze tossiche emesse e anche fonte di sprechi economici per il calore disperso e non recuperato. L'invenzione del sottoscritto denominata "depurcogeproduzione termoelettrica globale" (D.C.P.T.C.G.) recupera queste risorse, aumenta i rendimenti, rende pulita l'energia, depura e alcalinizza o desalinizza tutte le acque che attraversano l'impianto. Il sistema si basa sull'allargamento di questi impianti con nuove sezioni in modo da poter sfruttare il calore e il CO2 che producono. Fanno parte di queste nuove sezioni le ciminiere C.R.D. che riportano verso il basso i fumi contribuendo alla filtrazione e al raffreddamento, i fabbricati D.D.C.L. che sfruttano il calore contenuto nelle acque per riscaldare grandi digestori anaerobici producendo biogas e compost per l'agricoltura di alta qualità; i fabbricati F.S.V. che consumando il CO2 e il calore residuo producono biomasse energetiche e fanghi, che saranno trasferiti agli stessi D.D.C.L. Nei F.S.V. il CO2 sarà usato anche per la carbonatazione a freddo di rocce calcaree immagazzinate su più piani in appositi cestelli pensili carrellati. E' il continuo riciclo delle acque tra la sezione calcarea (sbcmcv) e quella depurativa (sbfcv) a consentire il maggior assorbimento del CO2. Piogge di acqua depurate ed eventualmente desalinizzate da cestelli mobili riempiti con resine di scambio ionico, trascineranno nei bacini acquatici sottostanti i carbonati prodotti dalla corrosione delle rocce che saranno rinnovate periodicamente.

**P. DISEGNO PRINCIPALE**

FIRMA DEL / DEI RICHIEDENTE / I *Pezone Luigi Antonio*

**Impianto sinergico di depurcogeproduzione termoelettrica coperta globale - Synergistic global indoor thermoelectric**

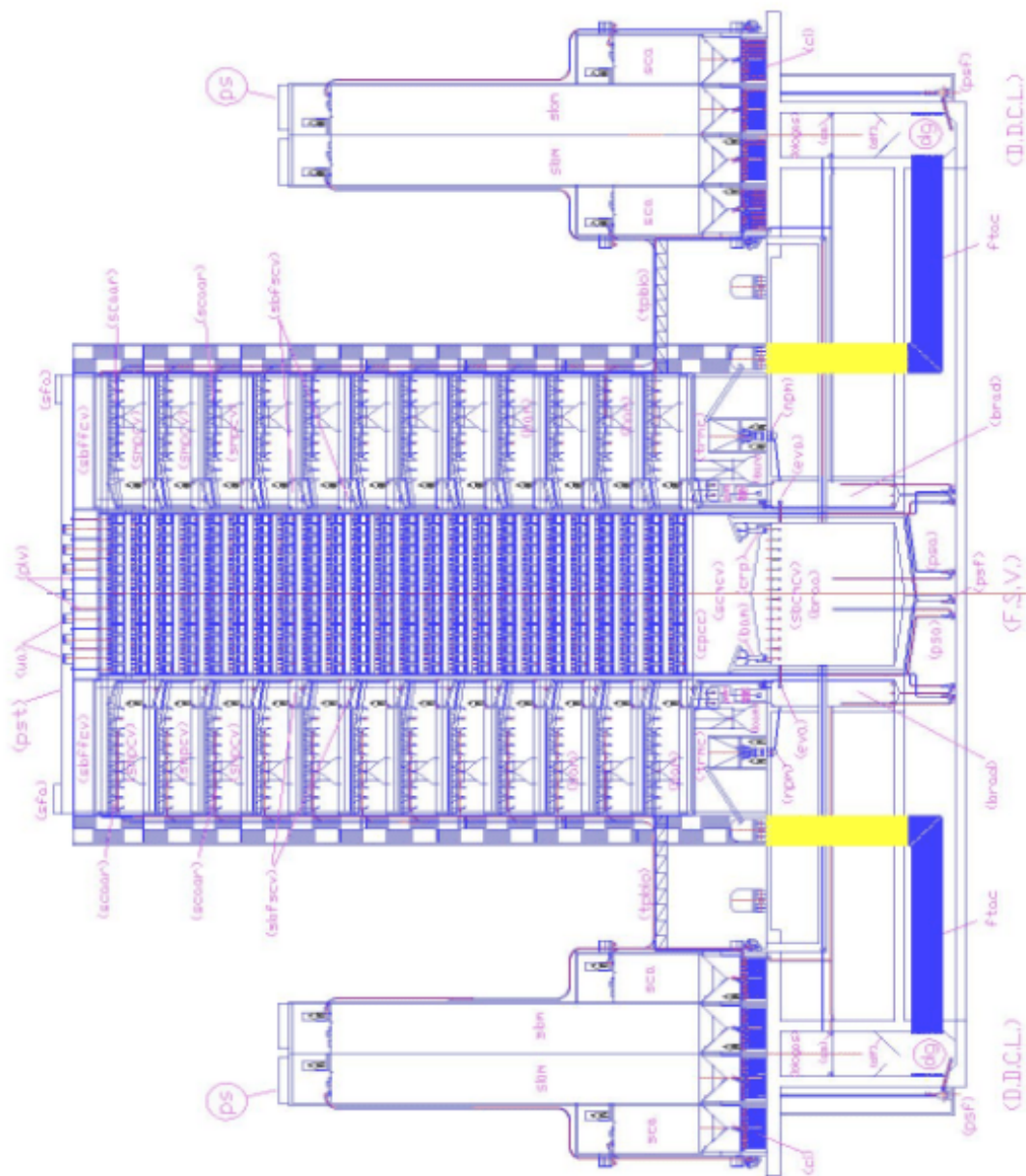
*purification and production plant*



SEZIONE LONGITUDINALE IMPIANTO DI DEPURCOGEPTODUZIONE COPERTA GLOBALE SUL SETTORE D.I.C.I.

*Sezione longitudinale impianto di depurcogeptoduzione coperta globale – Longitudinal section of global indoor sewage treatment plant*





SEZIONE TRASVERSALE IMPIANTO DI DEPURCOGEPTODUZIONE COPERTA GLOBALE D.C.P.T.C.G. SUI SETTORI D.D.C.L. E F.S.V.

**Sezione trasversale impianto di depurcoeptoduzione coperta globale -Cross section of global indoor sewage treatment plant**

**PROSPETTO MODULO A**  
**DOMANDA DI BREVETTO PER INVENZIONE INDUSTRIALE**

NUMERO DI DOMANDA:	CFZ003 A 00008	DATA DI DEPOSITO:	15-09-2009
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**A. RICHIEDENTE/I** COGNOME E NOME o DENOMINAZIONE, RESIDENZA o STATO ;  
PEZONE LUIGI ANTONIO RESIDENTE IN VIA CASERTA PARCO VERDE - SANTA MARIA CAPUA VETERE - CASERTA - ITALIA

**C. TITOLO**  
SISTEMA COMBINATO DI SEDIMENTAZIONE, DISIDRATAZIONE, STABILIZZAZIONE CHIMICA DEI FANGHI CON POLVERI DI CALCIO

SEZIONE	CLASSE	SOTTOCLASSE	GRUPPO
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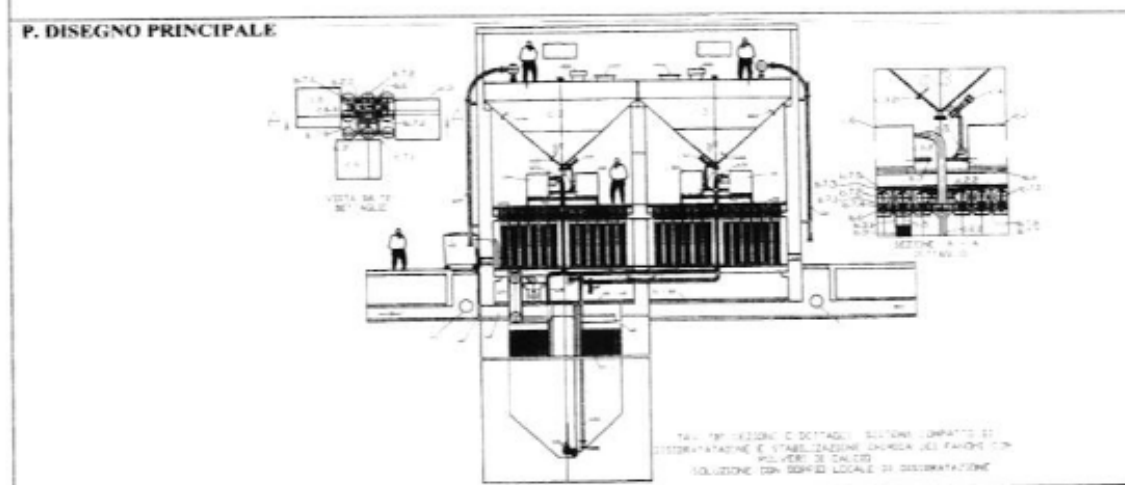
SOTTOGRUPPO

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**E. CLASSE PROPOSTA**

**O. RIASSUNTO**

I depuratori, nella maggioranza dei casi, sono distanti molti chilometri dal punto di scarico in fogna. Il trasferimento dei liquami, dallo scarico al trattamento, aggrava la degenerazione dei liquami per l'assenza di ossigeno nelle fognature. Per trasportare a distanza il liquame è necessario alleggerirlo di parte delle sostanze sospese e materiali organici in grado di alimentare i batteri anaerobici che provocano le decomposizioni. Il sottoscritto propone degli impianti compatti, sviluppati in verticale, in versione stabile (C.S.M.T.) o mobile (M.T.C) (in container), che avranno la parte sottostante (sedimentazione) fissa, inserita nella linea fognaria. La parte superiore sarà in grado di trattare, con pochissimo ingombro, i fanghi sedimentati fino alla stabilizzazione e di aerare l'acqua in uscita. Allo stato dell'arte non esistono impianti concepiti con le tecniche utilizzate dal sottoscritto che, a parità di trattamenti eseguiti, consentono di occupare spazi decine di volte inferiori rispetto ai sistemi attualmente conosciuti. Ciò è dovuto, in particolare, al concepimento di una vasca di distribuzione dei fanghi che utilizza centinaia di galleggianti per aprire e chiudere i punti di immissione dei fanghi liquidi e alla somministrazione a secco della calce diluita in aria che si miscela nei fanghi direttamente nei contenitori drenanti finali e ai lunghissimi tempi di contatto che il sistema consente. Con una sola somministrazione in posizione strategica possiamo ottenere effetti coagulanti, disidratanti e stabilizzanti. A ciò bisogna aggiungere che non si producono cattivi odori e biogas, dannoso per l'ozono stratosferico.



FIRMA DEL / DEI RICHIEDENTE / I

*Pezone Luigi Antonio*

**Sistema combinato di sedimentazione, disidratazione, stabilizzazione chimica dei fanghi con polveri di calcio - Combined system of sedimentation, dehydration, chemical stabilization of sludge with calcium powders**

**PROSPETTO MODULO A**  
**DOMANDA DI BREVETTO PER INVENZIONE INDUSTRIALE**

NUMERO DI DOMANDA: Ce 2009A 000010 DATA DI DEPOSITO: 28 - 10 - 2009

**A. RICHIEDENTE/I** COGNOME E NOME O DENOMINAZIONE, RESIDENZA O STATO .  
 PEZONE LUIGI ANTONIO RESIDENTE IN VIA CASERTA PARCO VERDE - SANTAMARIA CAPUA VETERE - CASERTA - ITALIA

**C. TITOLO**  
 AUTOBOTTE PER ESPURGI CON DISIDRATAZIONE E STABILIZZAZIONE CHIMICA DEI FANGHI CON POLVERI DI CALCIO

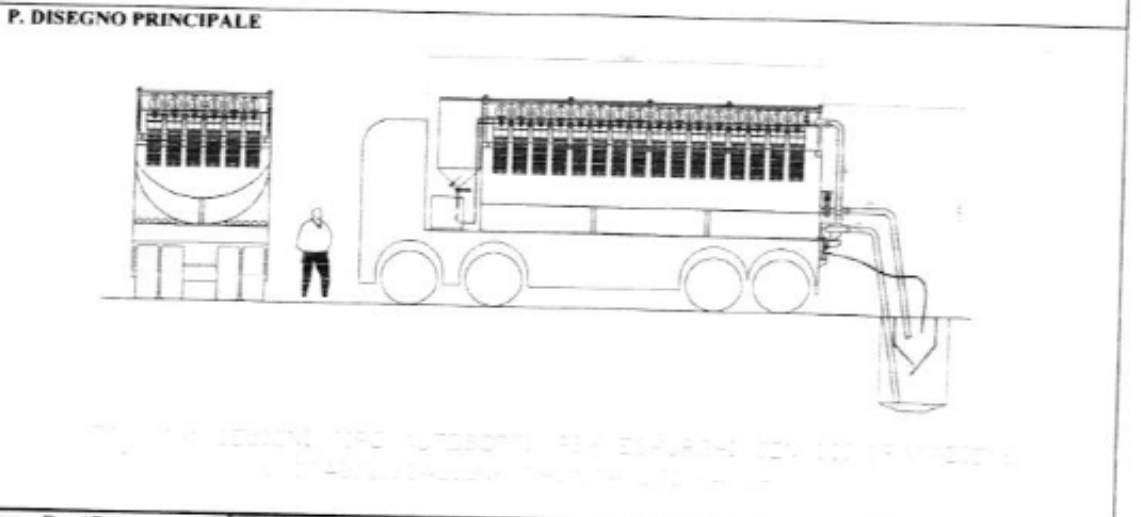
**DOMANDA DI BREVETTO PENDENTE**

SOTTOGRUPPO                      SEZIONE                      CLASSE                      SOTTOCLASSE                      GRUPPO

**E. CLASSE PROPOSTA**                   

**O. RIASSUNTO**

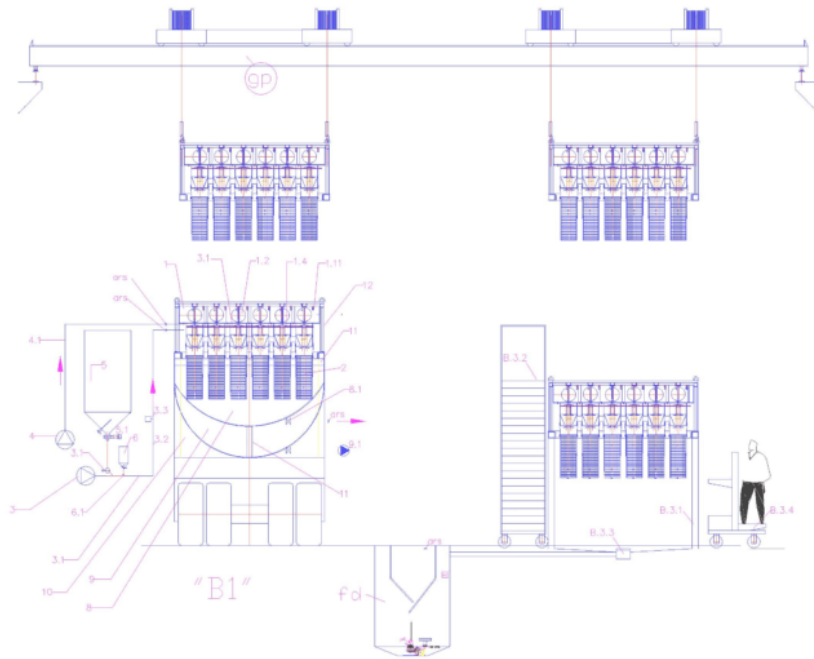
Il liquame trasportato dalle autobotti ai depuratori, proveniente da fosse imhoff, fosse settiche, pulizie fognarie fognarie, ecc. ha un contenuto di fango inferiore al 2%. Di questo fango, almeno il 98 % è acqua. Quindi per trasportare al depuratore un kg di fango secco siamo costretti a trasportare circa 2500 litri di liquame fangoso. Il sottoscritto, avendo già depositato una domanda di brevetto per un sistema di sedimentazione e stabilizzazione dei fanghi con polveri di calce applicabile anche a piccoli impianti di sedimentazione depurazione (deposito n. Ce2009A000008 del 15/09/2009) ritiene applicabile lo stesso sistema anche sulle autobotti di espurgo. Questa applicazione, a parità di fango trasportato, consentirà di ridurre il numero dei trasporti di circa 88 volte, abbattendone i costi al di sopra di ogni aspettativa. Il sistema ridurrà anche i costi di depurazione alleggerendo il carico di lavoro degli impianti, favorirà la depurazione locale sostenibile, favorirà l'inserimento lungo la linea fognaria di sedimentatori statici con pacchi lamellari, che senza nessun impatto ambientale terranno pulite le fogne non consentendo lo sviluppo di idrogeno solforato e la degenerazione del liquame prima dell'arrivo ai depuratori. Gli stessi impianti di depurazione potrebbero concludere i cicli depurativi (primari, secondari e terziari) con dei sedimentatori senza ispessimento disidratazione e digestione e trovarsi il fango già caricato sul mezzo di trasporto senza costi impiantistici e gestionali, senza produrre biogas.



FIRMA DEL / DEI RICHIEDENTE / I    *Luigi Antonio Pezone*

**Autobotte per espurgo con disidratazione e stabilizzazione chimica dei fanghi con polveri di calcio -Tanker for drainage with dehydration and chemical stabilization of sludge with calcium powders**

N. Demand patent CE2009A000009 date september 29 2009



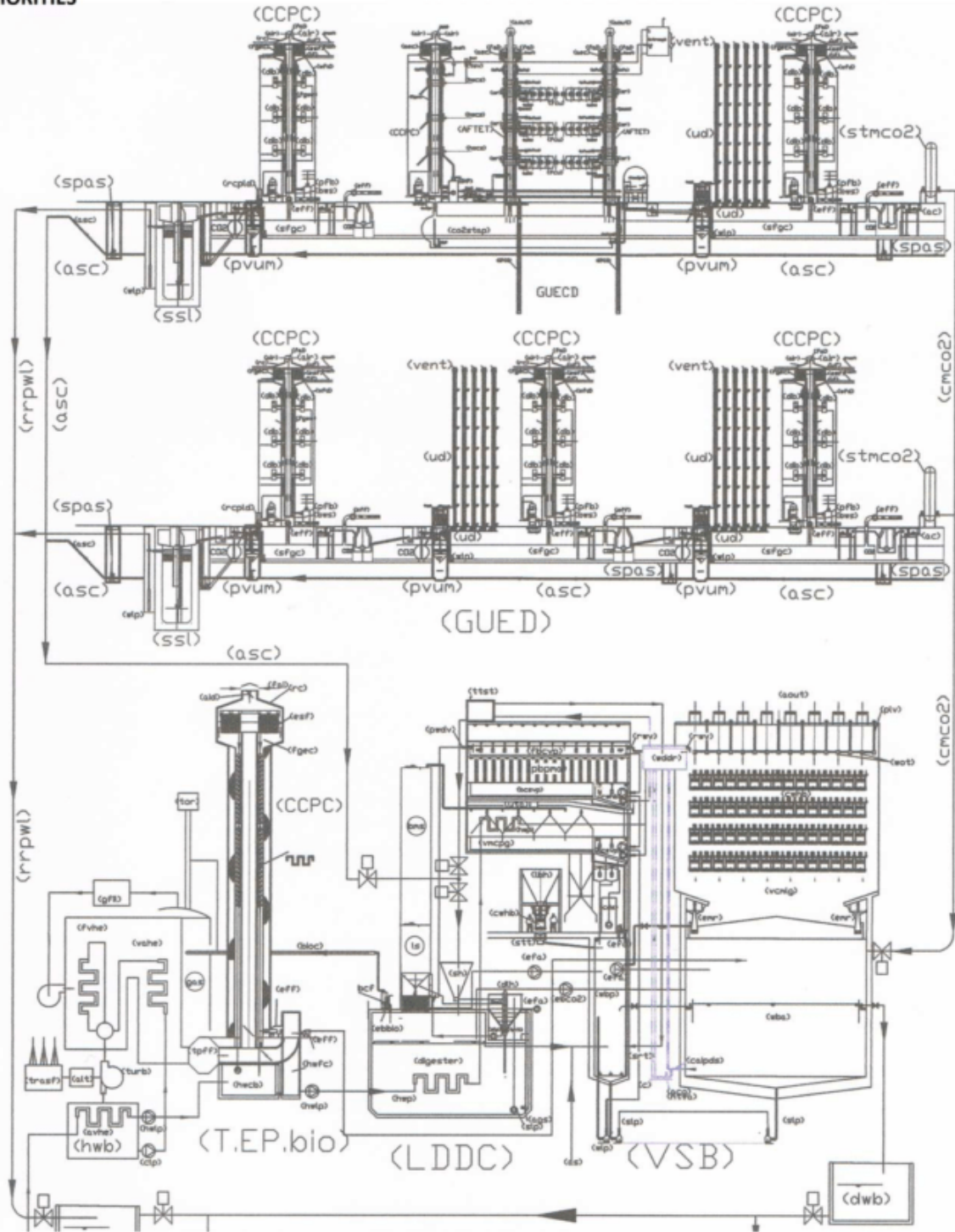
MOBIL CHEMICAL DEHIDRATATION e STABILIZATION WITH CALCIUM MCDC  
STATION DRAINAGE BAG REMOVAL

***Sistema mobile di disidratazione e stabilizzazione fanghi con polveri di calcio in sacchi drenanti Mobile sludge dehydration and stabilization system with calcium powders in draining bags***



*superimposed biological ponds, sedimentation tanks, CO2 consumption dehydrators and water alkalizers in limestone greenhouses*

**THE INTERACTIVE FOSSIL GLOBAL ENERGY DEAD IN THE BAND KILLED BY THE SILENCE OF THE ENVIRONMENTAL AUTHORITIES**

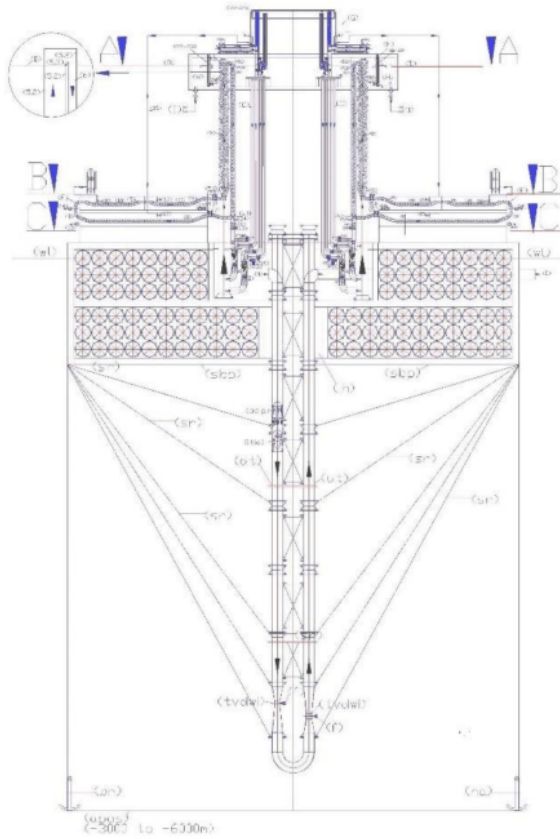


**WWW.SPAWHE.EU**

This figure represents the fossil interactive energy that could be created by modifying the chimneys and the urban plants, described in the old initial page of <http://www.spawhe>. To economize this system is born the interactive compressed hydroelectric energy, which does not emits pollution and CO2 and can be mounted even on means of transport, which is described in the new home page of <http://www.spawhe>. These two models of universal development, sustainable and protective of the environment were developed by a Neapolitan inventor, but ignored both by the world environmental authorities. On the other hand, UNESCO has recognized Neapolitan pizza as a World Heritage. The Neapolitans can not have both awards.

## ARTIFICIAL WELLING

THE INTERACTIVE SYSTEM TO COMBAT ACIDIFICATION OF OCEANS PRODUCING DISSALATIONS, ENERGY, FOOD AND WORK.



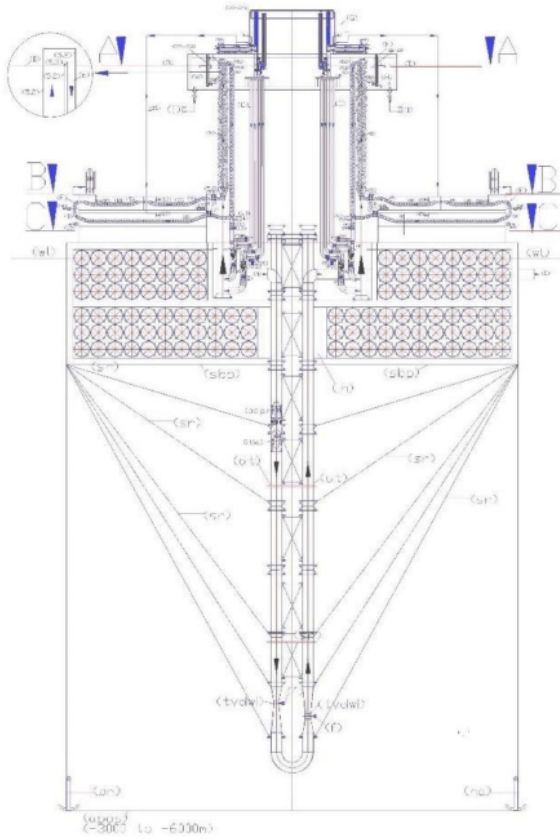
The state of the art in the development of desalination and demineralization treatment of marine and brackish water has been affected, along with industrial systems, purification, energy, food and protective of the environment, the absence of synergies between the pumps and hydraulic turbines and from the incorrect approach with the gravitational force, which must not be won by the hydraulic lifting but sustained, with one-way movement of water, especially in the gravitational direction, in the sea, in large basins, in open tanks. With simply overturned pumps coupled to the turbines can produce low-cost all the energy you need; continuing the descent and ascent of water in deep waters, for the venturi effect, we can suck and lift small percentages of deep water with high calcium and carbon percentage solubilized in them, that arrived at the surface, producing phytoplankton and alkalinity, increasing the abundance of fish and combating acidification and global warming; while on the floating platform, made with extruded and ribbed tubes made of low density polyethylene, blown in them polystyrene foam to make them unsinkable, with the triple synergy between the dual fuel pumps, turbines and the marine water recycling, by applying known hydraulic principles for centuries, as that of communicating vessels, the laws of Bernoulli and Pascal, placing, strategically, the electric double suction pump between a high positive hydraulic head and the turbines, we can desalinate large quantities of water, simply transforming a vertical tube in a ionic exchanger and recycling pipes and mixing in the energy producers, while the anionic and cationic synthetic resins, circulating contained in perforated polyethylene spheres as sieves. These spheres, floating climbing ion exchanger and descend for gravity emptying water in downhill tubes. By means of diverters change the path compared to the flow to be immersed in the washing tanks and regeneration of the resins, and reinserted again, indefinitely, in ion exchange circuit without interruption of the desalination cycle and energy production and without costs for heating the water or replace the membranes. If we want to exploit the immense riches of the sea, floating solutions have no alternative. The systems must be designed supported from above, since it cannot exist electromechanical equipment that can work to the abyssal depths. The sustainability of global systems is not only based on high technologies and special materials but above all on the physical basic principles, chemical, hydraulic and mechanical. The first problem that could face this solution is to provide a home and a job to migrant peoples fleeing war and hunger.

**FLOATING SYSTEM, HYDROELECTRIC, DESALTER, EXTRACTOR OF CALCIUM AND CARBON FROM MARINE DEEP WATER.**  
<http://www.spawhe.eu>



## ARTIFICIAL WELLING

THE INTERACTIVE SYSTEM TO COMBAT ACIDIFICATION OF OCEANS PRODUCING DISSALATIONS, ENERGY, FOOD AND WORK.



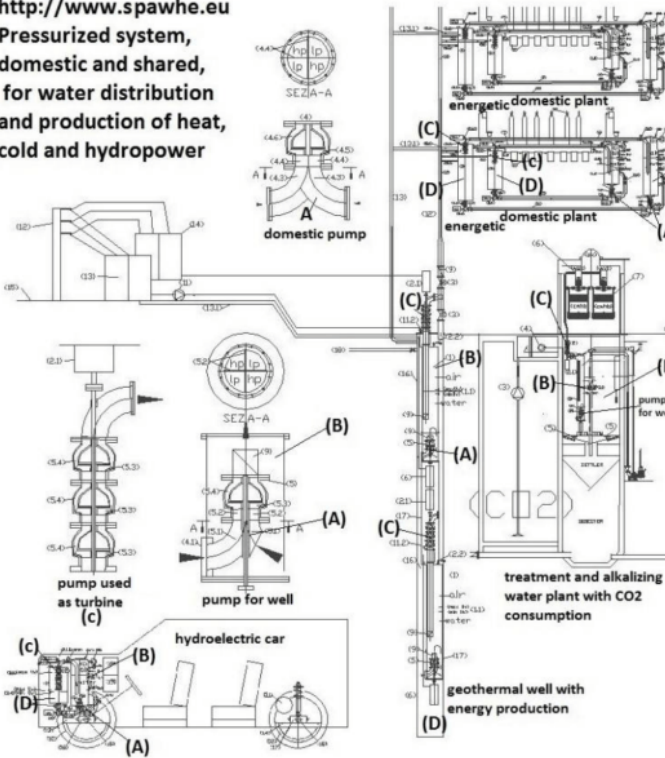
The state of the art in the development of desalination and demineralization treatment of marine and brackish water has been affected, along with industrial systems, purification, energy, food and protective of the environment, the absence of synergies between the pumps and hydraulic turbines and from the incorrect approach with the gravitational force, which must not be won by the hydraulic lifting but sustained, with one-way movement of water, especially in the gravitational direction, in the sea, in large basins, in open tanks. With simply overturned pumps coupled to the turbines can produce low-cost all the energy you need; continuing the descent and ascent of water in deep waters, for the venturi effect, we can suck and lift small percentages of deep water with high calcium and carbon percentage solubilized in them, that arrived at the surface, producing phytoplankton and alkalinity, increasing the abundance of fish and combating acidification and global warming; while on the floating platform, made with extruded and ribbed tubes made of low density polyethylene, blown in them polystyrene foam to make them unsinkable, with the triple synergy between the dual fuel pumps, turbines and the marine water recycling, by applying known hydraulic principles for centuries, as that of communicating vessels, the laws of Bernoulli and Pascal, placing, strategically, the electric double suction pump between a high positive hydraulic head and the turbines, we can desalinate large quantities of water, simply transforming a vertical tube in a ionic exchanger and recycling pipes and mixing in the energy producers, while the anionic and cationic synthetic resins, circulating contained in perforated polyethylene spheres as sieves. These spheres, floating climbing ion exchanger and descend for gravity emptying water in downhill tubes. By means of diverters change the path compared to the flow to be immersed in the washing tanks and regeneration of the resins, and reinserted again, indefinitely, in ion exchange circuit without interruption of the desalination cycle and energy production and without costs for heating the water or replace the membranes. If we want to exploit the immense riches of the sea, floating solutions have no alternative. The systems must be designed supported from above, since it cannot exist electromechanical equipment that can work to the abyssal depths. The sustainability of global systems is not only based on high technologies and special materials but above all on the physical basic principles, chemical, hydraulic and mechanical. The first problem that could face this solution is to provide a home and a job to migrant peoples fleeing war and hunger.

**FLOATING SYSTEM, HYDROELECTRIC, DESALTER, EXTRACTOR OF CALCIUM AND CARBON FROM MARINE DEEP WATER.**  
<http://www.spawhe.eu>

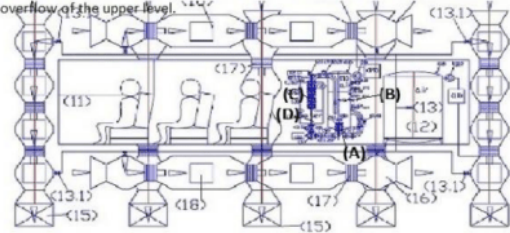
A)

ARCHIMEDES WAS WRONG, BUT THE SCIENCE HAS NEVER CORRECT HIM.

<http://www.spawhe.eu>  
**Pressurized system,  
 domestic and shared,  
 for water distribution  
 and production of heat,  
 cold and hydropower**

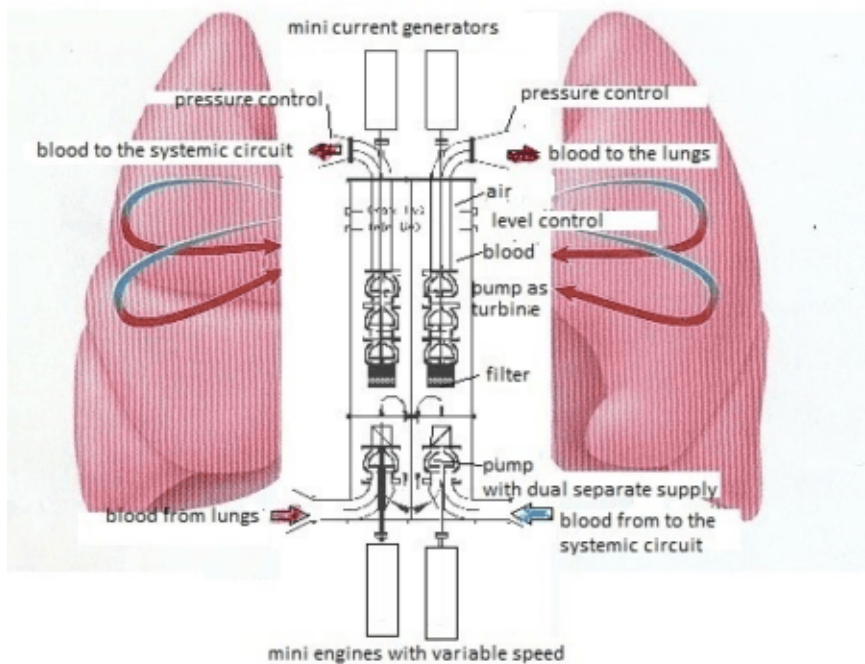


What we wanted to understand, at least the industrial era that saw the birth together, pumps, turbines, compressors, hydraulic, pneumatic, that the best way to overcome the force of gravity is to go around it, using the same tools that gravity does it make us available? This we can do especially water, using hydraulic circuits tubulated that by putting in series pumps and turbines, exploiting the energy of the water surface position with respect to the one below to produce submerged hydroelectric power. But we can also do it in the atmosphere by changing the hydraulic systems and lift pumps. In this case, we must use the pumps with the dual supply until to the impeller. These pumps bring the water to be lifted into the central part of the same impeller and the impeller. These pumps bring the water to be lifted into the central part of the same impeller and the impeller. When the impeller rotates, add up the two flow rates, while, for the principle of Pascal, stabilizes a single pressure in suction and delivery (apart from the side connected to the water to be lifted connected by means of a one-way valve). As a result, during operation, the water to be lifted enters in the already raised water recycling circuit, this implies that from the overflow of the upper tank from spilling out the same amount of water that enters, which feeds back the lower reservoir exploiting the geodesic top water energy of the upper water. Obviously, if we put a hydraulic turbine at the output of the downhill pipe, we exploit the  $\frac{1}{2} m V^2$  produced by kinetic energy, where V is equal to the square root of H height according to Torricelli's principle. While the water that entered, the low-pressure pump impeller consumed only the energy of a few centimeters of water column to overcome the losses in the inlet valve. In fact, all centrifugal pumps in the center of the impeller create a depression that enters the water, which is pressurized in the same impeller as it moves away from the center. In pumps with the dual separate supply, the impeller receives alternately in the same sector, water in the high and low pressure, ranging in the same direction, therefore (A)avails Pascal effect and the exit of the impeller we have only the greater pressure. Since the water entering the recycle circuit already full is of the same density as the existing one, it does not consume energy to circulate because the amount of water that has entered the pump comes out of the overflow of the upper level.

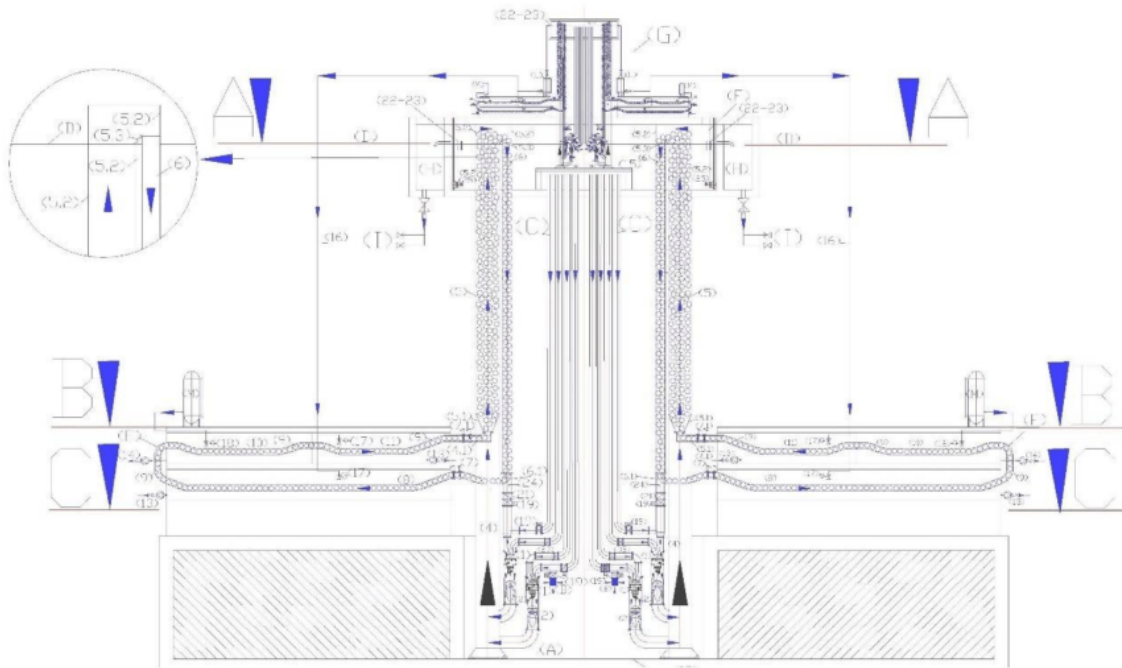


**AEROSPATIAL VEHICLE WITH INTERNAL ELECTRICITY PRODUCTION, POWER SUPPLY OF TURBOFANS IN SERIES AND COMPRESSED AIR INJECTION IN THE SAME TO TRAVEL IN THE SPACE**

## ARTIFICIAL HEART OXYGENATOR OF BLOOD, ENERGETICALLY AUTONOMOUS.



The artificial heart of man, proposed in this patent deposit, closes the circle of sustainable energy based on the only physical principle possible in every remote corner of the Earth: the bypass of the force of gravity and of the elastic pressure of the air that it can be realized everywhere, even in the man's chest, using pumps with the double supply separated until to the impeller, which science, industrialists and world legislators pretend to ignore in order not to admit that they have wronged the entire industrial and economic development. Everything would have been simpler, cleaner and cheaper if this invention had taken place a hundred years earlier, as it could have been. The artificial human heart is the miniaturized version of the autoclave system, already reduced, to make it enter the wells' shirts, to purify the water producing energy. Entering the chest of the man to purify the blood producing the energy needed by the brain is not much different from expected for the wells. They serve two mini parallel autoclave systems that replace the right and left atria ventricles. The two pumps that feed them, with the double supply separated until to the impeller, allowing the balance of the hydrostatic thrust in suction and delivery, allow to get the blood coming from the systemic circulation in the mini autoclave on the right and the one coming from the lungs in that left, bypassing the compressed air pressure. This system works autonomously because the mini autoclave ejects at the same instant the quantity of blood equal to the one that enters, due to the principle of impenetrability of the bodies, through a mini pump used as a turbine connected to a direct current generator. The energy spent by the pump motor is about a tenth of the energy produced by the generator. This allows us to have enough energy available to produce the amount of compressed air necessary to the autoclave and the management of an electronic control unit that with a three-word voice command: "rest, normal, fast" manages the flow and the blood pressure according to the physical activity that it carries out. Although it is the air pressure that circulates the blood in the pump used as a turbine, since the circulation is one-way, apart from air solubilized in the blood with purifying effects, there is no other consumption of compressed air because it is exploited statically and not even electricity to produce it. Although it is the air pressure that circulates the blood in the pump used as a turbine, since the circulation is one-way, apart from the solubilized air in the blood with purifying effects, there is no other consumption of compressed air and electric energy. As published on <http://www.spawhe.eu>, this solution was found by myself after many years spent trying to improve the purification systems of water and air and many patents filed in vain. However, the study served to ascertain that world science has identified single and incomplete scientific principles, which used singly have polluted and warmed the planet. Only with the invention of the pumps with the double power supply separated to the impeller, the undersigned has found the key of the problem. In fact, through it, the dynamic fluid used cold between water and air, especially compressed, would have produced energy protecting the environment, consuming only moderate wear of materials, with low operating temperatures, and air pressures used statically, which would circulate the incompressible liquid. This is the true principle of terrestrial energy that, unfortunately, has not been legislated by world science, which still ignores it, hoping that in addition to myself, no one notices it. Too late. They would have to admit their mistakes, before this energy, despite their silences, also entered the human heart, were, not only it can extend the life of man for many years. But when the other organs are too old, the brain system and the artificial heart. It may also be transferred into an artificial body, which we now call robots, but governed by the human brain and the accumulated knowledge throughout life that will continue to grow even after the death of the body. Reality can overcome fantasy because in no science fiction film this form of human survival has been hypothesized. If the human soul exists it is contained in the brain and its knowledge. It will not be humiliating for anyone to survive thanks to an artificial heart, cybernetic, and some syrup specially designed by nutritionists to be solubilized in small autoclaves that will replace the ventricular atria. When we are ready to do this. We will also be ready to conquer the infinite space. Not before. With our very short current life, we cannot go very far. (<http://www.spawhe.eu/artificial-heart-oxygenator-of-blood-energetically-autonomous/>).



**VERTICAL DESALINATORS - DEMINERALIZERS BY ION EXCHANGE WITH HYDROELECTRIC ENERGY PRODUCTION. <http://www.spawhe.eu>**

The state of the art in the development of desalination and demineralization treatment of marine and brackish water has been conditioned, as many other industrial systems, depuration, energy and protective of the environment, by the absence of synergies between the pumps and hydraulic turbines and from the incorrect approach to the gravitational force, which is not to be won by lifting hydraulic but sustained, with a one-way circulation of water in open reservoirs, upper seats that double as hydraulic backflow preventers. With the triple synergy between the dual supply pumps, turbines and recycling of water in an open vessel, applying hydraulic principles known for centuries, such as the principle of communicating vessels, the laws of Bernoulli and Pascal, strategically placing the electric double suction pumps between a high positive hydraulic head and the turbines, dimensioned for the exploitation of the same hydraulic load, the pumps, working with a balanced load, with a small energy consumption, they win the state of inertia, allowing the energy transformation of pressure of the intubate water column overlying the pump, into kinetic energy and transferring it to the turbines, which produce energy. These spheres, floating climbing ion exchanger and descend by gravity, emptying water in downhill tubes. By means of diverters change the path compared to the flow to be immersed in the washing tanks and regeneration of the resins, and reinserted again, indefinitely, in ion exchange circuit without interruption of the desalination cycle and energy production and without costs for heating the water or replace the membranes. The demineralized water serving for the washing of the resins is produced by continuing the process through a mini system completely similar to the main that part from the desalinated water tank. If men want to produce desalinated water in industrial quantities that serve humanity, also desalination plants, as purifiers and water lifting and distribution, must become producers of energy, not consumers, supporting, not opposing gravitational forces. The sustainability of global systems is not based on complicated technology but on synergies between simple and rational systems. The first problem that could tackle these plants is to send, low cost, high flow of water, with the right pH and mineral rich to the deserts near and far from the sea.

# MINI DOMESTIC WATER PURIFICATION SYSTEM WITH HYDROELECTRIC ENERGY PRODUCTION

Italian patent application no. 102018000004864 of 04/26/2018

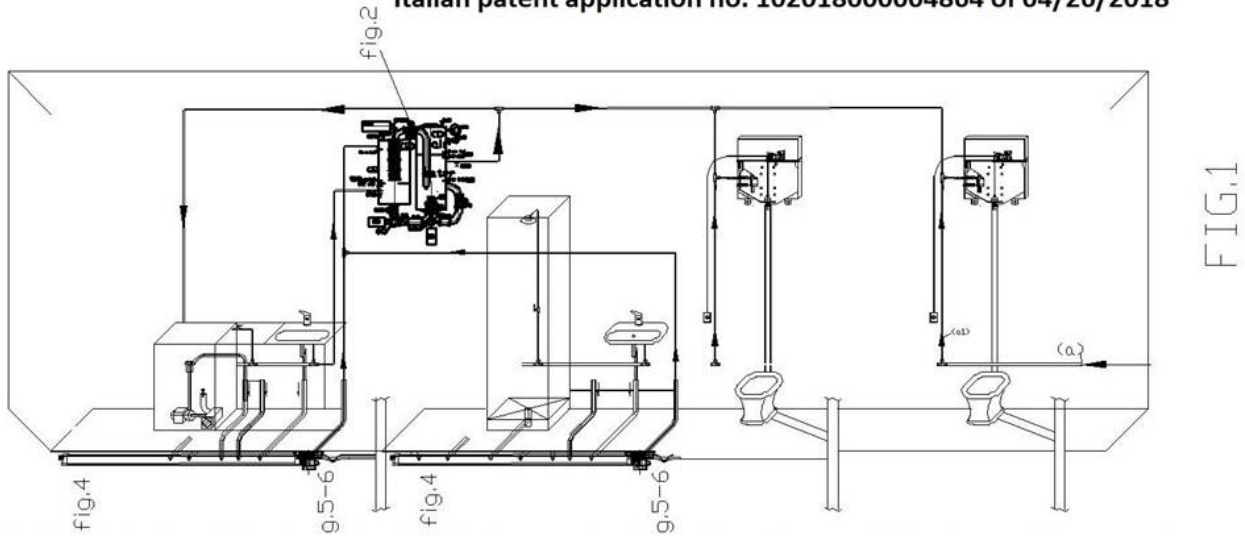
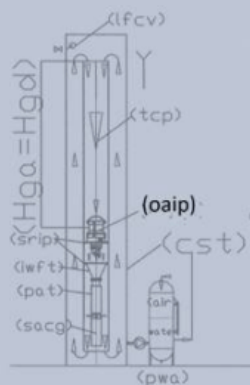


FIG.1

In homes and public places we can endlessly recycle unpolluted water from oils and greases, such as the one we use for personal hygiene and the rinse of the washing machine and dishwasher. This is recovered through a collection plant in the floor, which filters and lifts it. Poi, per mezzo di una pompa con la doppia alimentazione separata fino alla girante, è introdotta in un serbatoio autoclave pressurizzato con aria compressa che funziona da depuratore dissolvendo ossigeno nell'acqua per mezzo dei principi di Henry e Dalton. The water that comes out feeds a hydraulic turbine producing electrical energy returning to the autoclave, or feeding the washing machine and the toilets. This system will allow us to save almost 50% of the drinking water we consume, moreover, producing energy in our homes. It is possible thanks to the invention of pressurized hydroelectric energy that exploits the physical principles of water and air differently: the autoclave tank is inserted in series in the flow of water, which is one-way. The water enters from the bottom of the pressurized tank and exits sideways while the air cushion statically exerts pressure on the surface of the water, without making it expand, since the circuit is designed so that the water that enters is perfectly equal to the one that goes out. In fact, it is much cheaper to circulate the incompressible water to keep the pressure constant that allow the expansion of the volume of air and then compress it again, absorbing energy. The entry of water takes place despite the low prevalence of the circulation pump, thanks to the pressure stability that takes place in the impeller by means of the second feed which, at the same time, recycles the water of the autoclave. Obviously, the same amount of water introduced in this way is expelled at the same time as the tank is already full. But the expulsion of water takes place under high pressure without relieving the pressure of the air cushion, since it is stabilized by the same water that enters the same amount in low pressure. The water expelled from the autoclave by a separate outlet equipped with a pressure reducer feeds the domestic washing machine or flushes the toilets. Only this last is definitively discharged in sewer. This system will also be very useful on trains, campers, planes, ships, boats, submarines, airplanes, space ships, where the energy produced will also be used to power the vehicle.



(oaip) overturned axial intubated pump = pompa assiale capovolta intubata

(iwft) inlet water to feed turbine = alimentazione acqua per alimento turbina

(lfcv) level floating control valve = valvola a galleggiante di controllo livello

(pat) pump as turbine = pompa usata come turbina

(pwa) pump with autoclave = pompa con autoclave

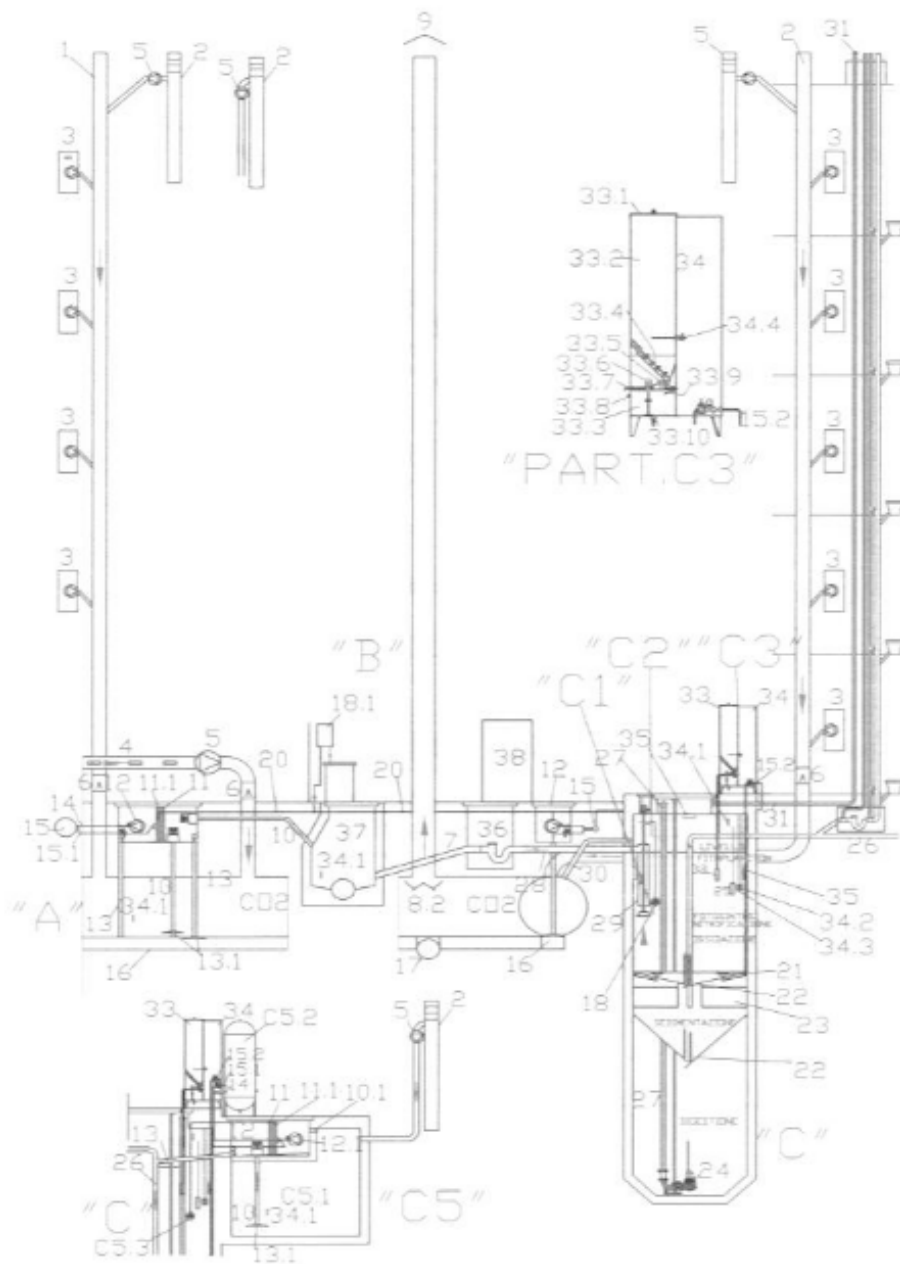
(sacg) submersible alternating current generator = generatore di corrente alternata sommersibile

(srp) support ring for intubate pump = anello di supporto per pompa intubata

condominium hydroelectric plant  
 impianto idroelettrico condominiale

Come si vede dalla figura sopra riportata, persino l'acqua in attesa di essere consumata dai condomini e dalle abitazioni private, può produrre energia con mini pompe e mini turbine, o pompe usate come turbine (Pat). Supponiamo di realizzare in un tubo contenitore (cst) diametro di un metro che può essere facilmente incorporato nel fabbricato che sfrutta l'altezza utile  $H_u = 10$  m nel tubo di discesa DN 300 (hdrt) incorporato nel tubo (cst). Supponendo che la portata dell'impianto sia  $0,2$  m<sup>3</sup>/s, il rendimento della turbina sia  $0,75$ , applicando la stessa formula  $P_u = \eta * 1000 * Q * H_u / 102$ , abbiamo una produzione energetica di  $14,6$  Kw ( $0,75 * 1000 * 0,2 * 10 / 102$ ). Assegnando alla pompa una prevalenza di  $0,2$  m e un rendimento  $0,6$ , la potenza assorbita dalla stessa, calcolata con la formula  $0,2 * 1000 * 0,2 / 102 * 0,6 = 0,64$  KW. In questo caso il rapporto tra l'energia spesa e resa è  $22,8$  ( $14,6 / 0,64$ ). Le perdite di carico nel tubo di discesa, i pezzi speciali e le perdite allo sbocco, sono tutte assorbite dal battente positivo sulla pompa. Applicando le formule di Bazin, [dove  $P_{dc}$  in m/km =  $1000 * 4 * V^2 / C^2 * D$ , dove  $C = 87 / (1 + 2\gamma / \sqrt{D})$ , dove  $\gamma$  è il coefficiente medio di scabrezza =  $0,16$ ]. Mentre la perdita di carico (pds) allo sbocco in m è  $V^2 / 2g$ . Queste perdite, se calcolate, per 10 metri di tubazione sono trascurabili e addebitabili al battente positivo sulla pompa

As shown in the figure above, even the water waiting to be consumed by condos and private homes, can produce energy with mini pumps and mini turbines, or pumps used as turbine (Pat). Suppose to realize in a container tube (cst) diameter of one meter that can be easily incorporated in the building that utilizes the useful height  $H_u = 10$  m in descent DN 300 (HDRT) tube embedded in the tube (cst). Assuming that the system flow rate is  $0.2$  m<sup>3</sup> / s, the turbine efficiency is  $0.75$ , applying the same formula  $P_u = \eta * 1000 * Q * H_u / 102$ , we have an energy output of  $14.6$  kW ( $0.75 * 1000 * 0.2 * 10 / 102$ ). Assigning to the pump a prevalence of  $0.2$  m and a  $0.6$  output, the power absorbed by it, calculated by the formula  $0.2 * 0.2 * 1000 / 102 * 0.6 = 0.64$  kW. In this case the ratio between the energy expenditure and yield is  $22.8$  ( $14.6 / 0.64$ ). The load losses in the descent tube, the special pieces and losses at the outlet, are all absorbed by the positive head to the pump. By applying the formulas of Bazin, [where  $P_{dc}$  in m / km =  $1000 * 4 * V^2 / C^2 * D$ , where  $C = 87 / (1 + 2\gamma / \sqrt{D})$ , where  $\gamma$  is the average roughness coefficient =  $0.16$  ]. While the loss of load (pds) to the opening in m is  $V^2 / 2g$ . These losses, if calculated, for 10 meters d are very low and absorbed by positive head on the pump



TAV. 14° SCHEMA IMPIANTO DI DEPURAZIONE GLOBALE LOCALE URBANO  
 CON SISTEMA DI CATTURA E NEUTRALIZZAZIONE DEL CO<sub>2</sub> E SMOG  
 SOLUZIONE SENZA FILTRAZIONE ELETTROSTATICA

*Schema impianto di depurazione globale urbana con sistema di cattura e neutralizzazione CO<sub>2</sub> e smog -Scheme of a global urban purification plant with CO<sub>2</sub> and smog capture and neutralization system*

**PROSPETTO MODULO A**  
**DOMANDA DI BREVETTO PER INVENZIONE INDUSTRIALE**

NUMERO DI DOMANDA: CE 2010 A 000008 DATA DI DEPOSITO: 22-06-2010

**A. RICHIEDENTE/I** COGNOME E NOME O DENOMINAZIONE, RESIDENZA O STATO ;  
 PEZONE LUIGI ANTONIO RESIDENTE IN VIA CASERTA PARCO VERDE - SANTA MARIA CAPUA VETERE - CASERTA - ITALIA

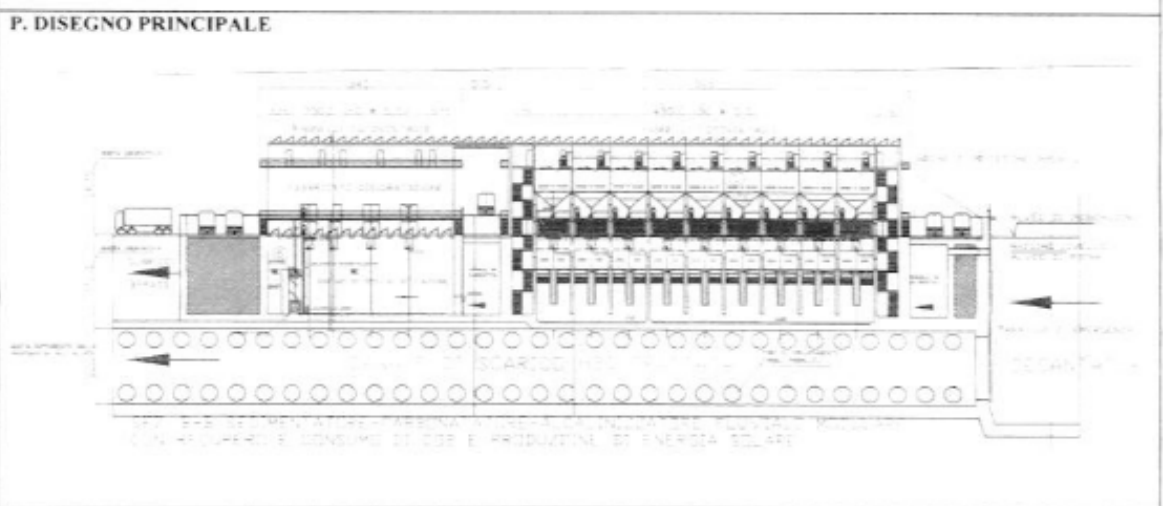
**C. TITOLO**  
 SISTEMI DI DEPURAZIONE COPERTI PER ACQUE FLUVIALI E URBANE CON RECUPERO E NEUTRALIZZAZIONE DI CO2 E PRODUZIONE DI ENERGIA ELETTRICA SOLARE

SEZIONE                      CLASSE                      SOTTOCLASSE                      GRUPPO

SOTTOGRUPPO

**E. CLASSE PROPOSTA**                   

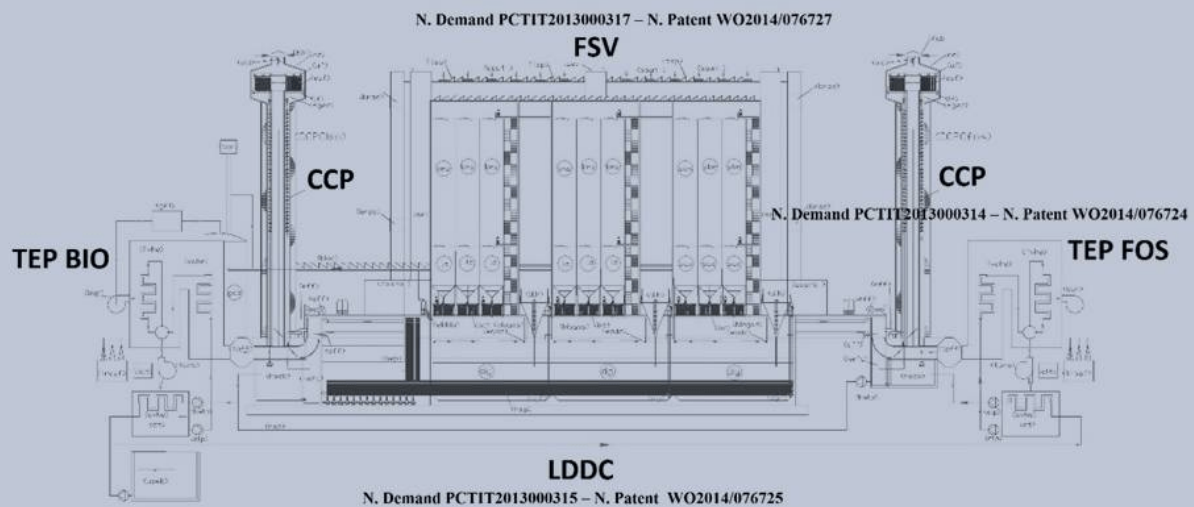
**O. RIASSUNTO**  
 Il depositante, studiando le possibilità di impiego nei depuratori di una precedente domanda di brevetto: "Sistema compatto di sedimentazione, disidratazione, stabilizzazione chimica dei fanghi con polveri di calce" (deposito n. Ce2009A000008 del 15/09/2009, a nome di Pezone Luigi Antonio), ha concepito degli impianti di depurazione interamente coperti, che utilizzando degli elementi modulari basati sul citato precedente deposito, affiancati senza soluzione di continuità, e collegati sotto il piano stradale con le altre sezioni di impianto, consentiranno di depurare le acque recuperando nell'ambito degli impianti le emissioni di CO2 e di consumarle o neutralizzarle nel processo stesso. Consentiranno di neutralizzare anche il CO2 contenuto in serbatoi o in rete di tubazioni, catturato, pressurizzato e liquefatto nelle industrie, con un processo di carbonatazione; di produrre energia elettrica solare, con i pannelli di copertura in quantità superiore al fabbisogno degli impianti. Queste innovazioni, insieme alla notevole riduzione degli ingombri consentita dal sistema permetterà di realizzare impianti di depurazione urbani e industriali molto diversi, ma soprattutto impianti di trattamento delle acque fluviali, che depurate e alcalinizzate, potranno correggere gradualmente l'acidificazione degli oceani, consentendo a questi di assorbire maggiori quantità di CO2 dall'atmosfera senza incorrere in una eccessiva produzione di plancton come sta avvenendo attualmente, che secondo le previsioni, entro il 2100 porterà alla eutrofizzazione oceanica.



FIRMA DEL / DEL RICHIEDENTE / I *Pezone Luigi Antonio*

*Depuratore coperto per acque urbane e fluviali con recupero e neutralizzazione CO2 e produzione di energia solare – Covered purifier for urban and river water with CO2 recovery and neutralization and solar energy production.*





CCP = CHIMNEY CAPTURE AND PURIFICATION FUMES WITH ELECTROSTATIC FILTER = CIMINIERA DI CATTURA E PURIFICAZIONE FUMI CON FILTRO ELETTROSTATICO

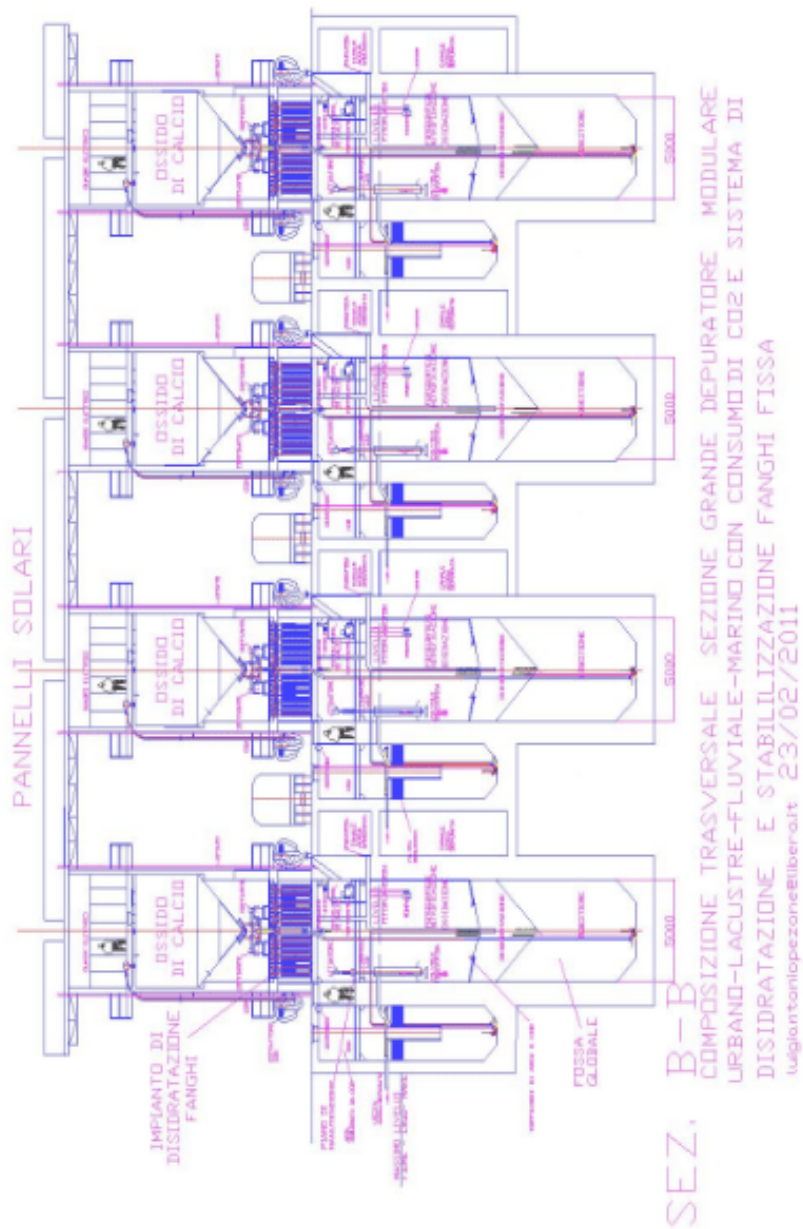
LDDC = LINEAR DEHYDRATOR DIGESTOR COMPOSTER = DIGESTORE LINEARE DISIDRATATORE COMPOSTATORE

FSV = BUILDING SYNERGY WITH VERTICAL BIOLOGICAL PONDS AND CALCAREOUS GREENHOUSE = FABBRICATO DINERGICO VERTICALE CON STAGNI BIOLOGICI SOVRAPPOSTI E SERRE CALCAREE

TEP FOS = FOSSIL THERMAL CENTRAL = CENTRALE TERMICA FOSSILE    TEP BIO = BIOLOGICAL THERMAL CENTRAL = CENTRALE TERMICA BIOLOGICA

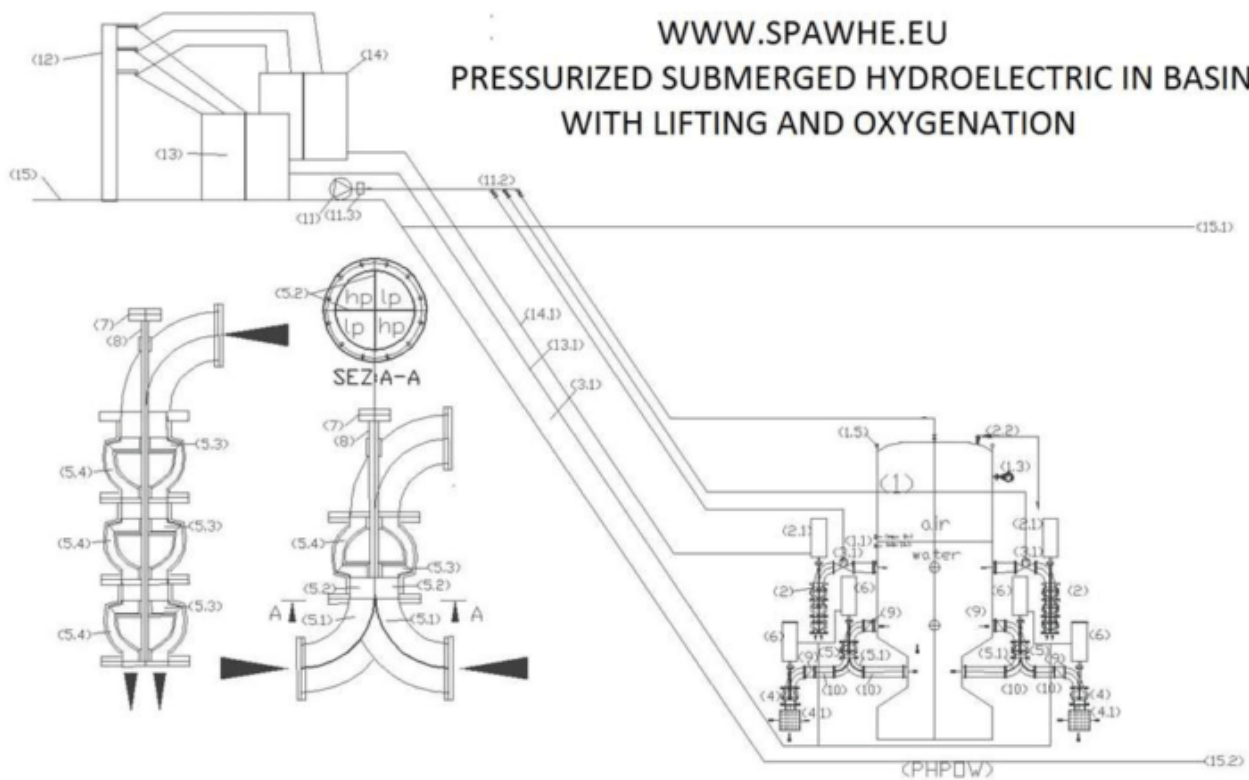
**GLOBAL SYNERGY PLANT FOR DEPURATION, BIOMASS PRODUCTION AND  
THERMOELECTRIC COGENERATION (GSPDPTC) N. Patent WO2014/076726**

**IMPIANTO SINERGICO GLOBALE DI DEPURAZIONE, PRODUZIONE DI BIOMASSA E  
COGENERAZIONE TERMOELETTRICA (GSPDPTC) N. Patent WO2014/076726**



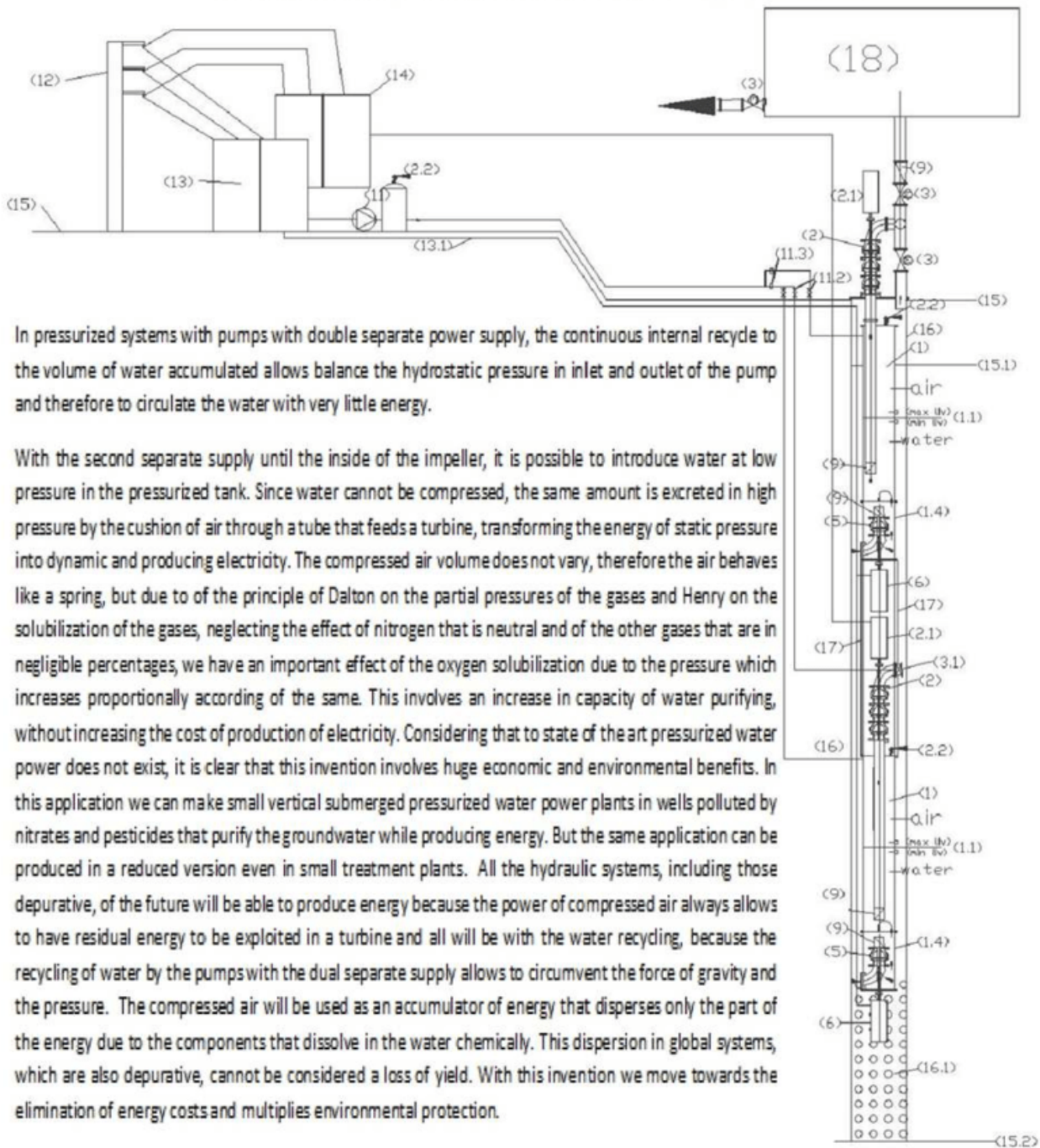
*Sezione depuratore coperto per acque urbane e fluviali con recupero e neutralizzazione CO2 e produzione di energia solare  
 -Cross section covered purifier for urban and river water with CO2 recovery and neutralization and solar energy production.*

PRESSURIZED SUBMERGED HYDROELECTRIC IN BASINS WITH LIFTING AND OXYGENATION



With the second separate supply until the inside of the impeller, it is possible to introduce water at low pressure in the pressurized tank. Since water cannot be compressed, the same amount is excreted in high pressure by the cushion of air through a tube that feeds a turbine, transforming the energy of static pressure into dynamic and producing electricity. The compressed air volume does not vary, therefore the air behaves like a spring, but due to of the principle of Dalton on the partial pressures of the gases and Henry on the solubilization of the gases, neglecting the effect of nitrogen that is neutral and of the other gases that are in negligible percentages, we have an important effect of the oxygen solubilization due to the pressure which increases proportionally according of the same. This involves an increase in capacity of water purifying, without increasing the cost of production of electricity. Considering that to state of the art pressurized water power does not exist, it is clear that this invention involves huge economic and environmental benefits. If with the pump with double separate supply introduce polluted water into the pressurized tank, we can produce energy while we clean instead of consuming energy. We can realize submerged pressurized water power plants in the depths of lakes and seas. But the same application can be produced in a reduced version even in small treatment plants. All the hydraulic systems, including those depurative, of the future will be able to produce energy because the power of compressed air always allows to have residual energy to be exploited in a turbine and all will be with the water recycling, because the recycling of water by the pumps with the dual separate supply allows to circumvent the force of gravity and the pressure. The compressed air will be used as an accumulator of energy that disperses only the part of the energy due to the components that dissolve in the water chemically. This dispersion in global systems, which are also depurative, cannot be considered a loss of yield. With this invention we move towards the elimination of energy costs and multiplies environmental protection.

**PRESSURIZED SUBMERGED HYDROELECTRIC  
PLANT IN WELL WITH LIFTING AND OXIGENATION**



In pressurized systems with pumps with double separate power supply, the continuous internal recyle to the volume of water accumulated allows balance the hydrostatic pressure in inlet and outlet of the pump and therefore to circulate the water with very little energy.

With the second separate supply until the inside of the impeller, it is possible to introduce water at low pressure in the pressurized tank. Since water cannot be compressed, the same amount is excreted in high pressure by the cushion of air through a tube that feeds a turbine, transforming the energy of static pressure into dynamic and producing electricity. The compressed air volume does not vary, therefore the air behaves like a spring, but due to of the principle of Dalton on the partial pressures of the gases and Henry on the solubilization of the gases, neglecting the effect of nitrogen that is neutral and of the other gases that are in negligible percentages, we have an important effect of the oxygen solubilization due to the pressure which increases proportionally according of the same. This involves an increase in capacity of water purifying, without increasing the cost of production of electricity. Considering that to state of the art pressurized water power does not exist, it is clear that this invention involves huge economic and environmental benefits. In this application we can make small vertical submerged pressurized water power plants in wells polluted by nitrates and pesticides that purify the groundwater while producing energy. But the same application can be produced in a reduced version even in small treatment plants. All the hydraulic systems, including those depurative, of the future will be able to produce energy because the power of compressed air always allows to have residual energy to be exploited in a turbine and all will be with the water recycling, because the recycling of water by the pumps with the dual separate supply allows to circumvent the force of gravity and the pressure. The compressed air will be used as an accumulator of energy that disperses only the part of the energy due to the components that dissolve in the water chemically. This dispersion in global systems, which are also depurative, cannot be considered a loss of yield. With this invention we move towards the elimination of energy costs and multiplies environmental protection.

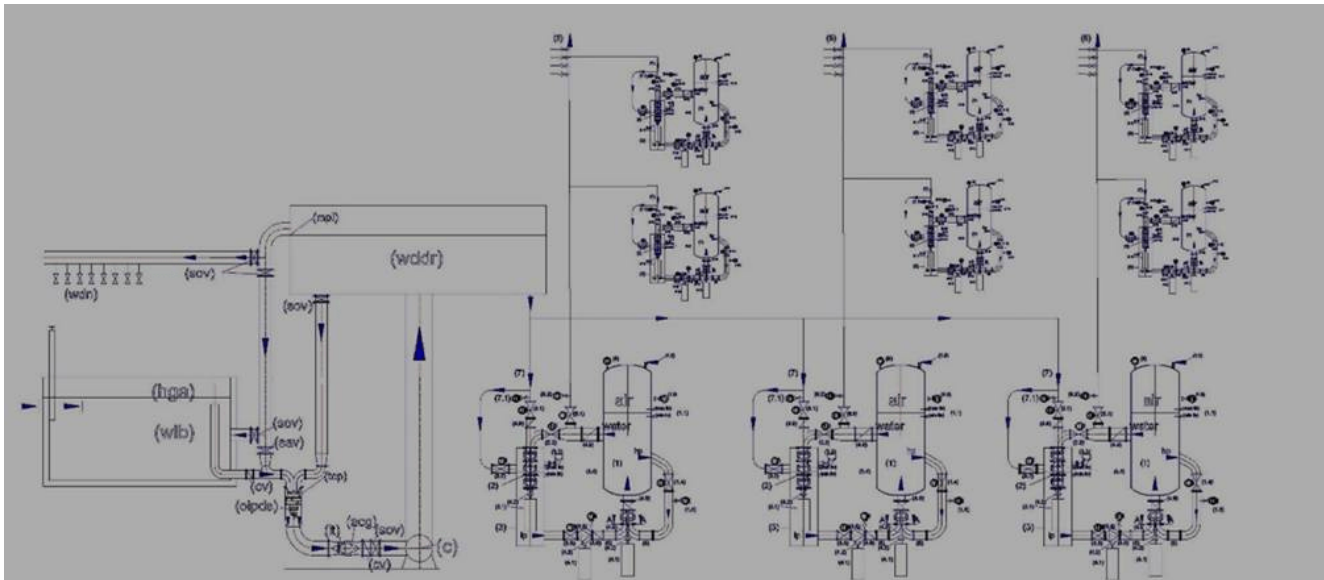
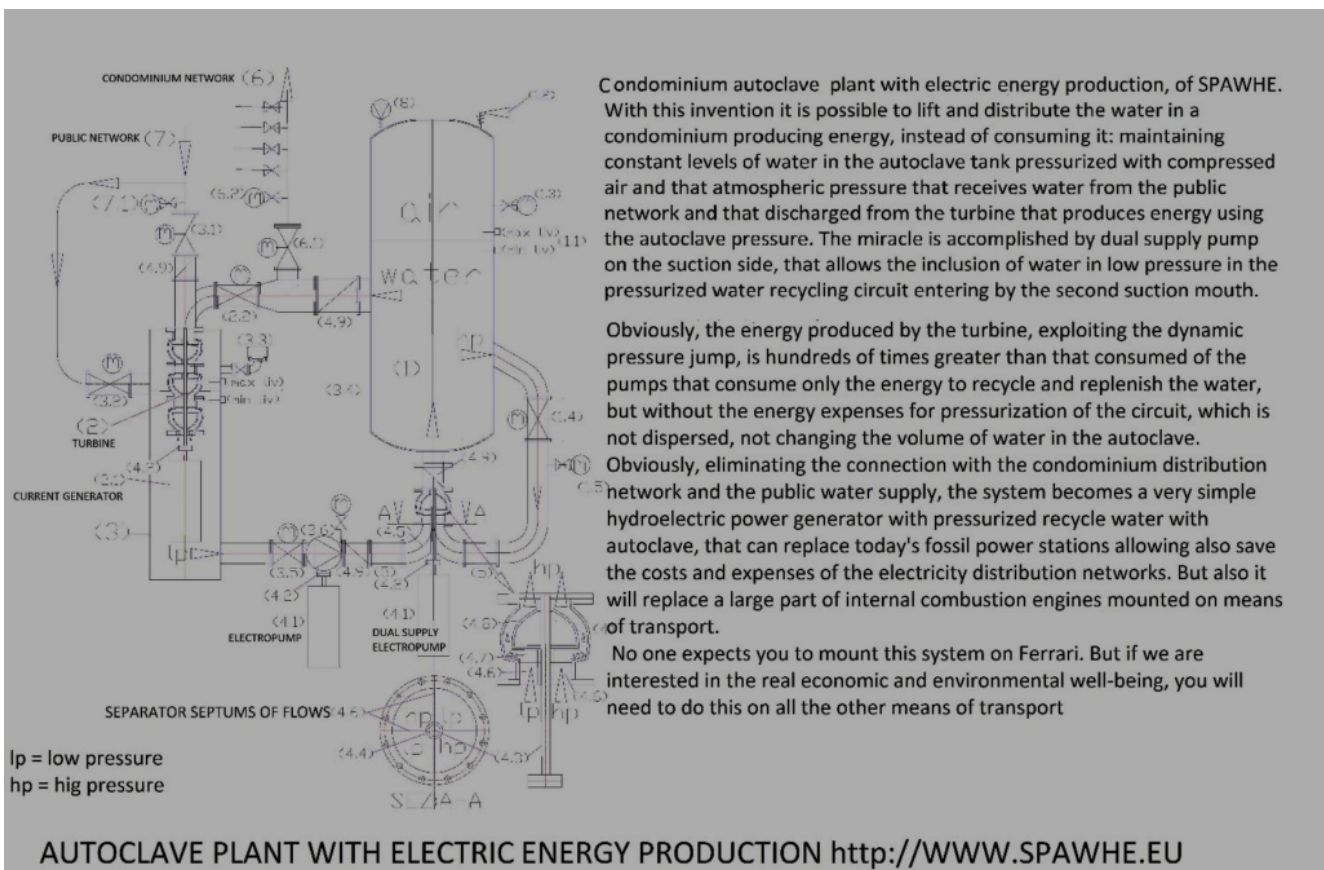
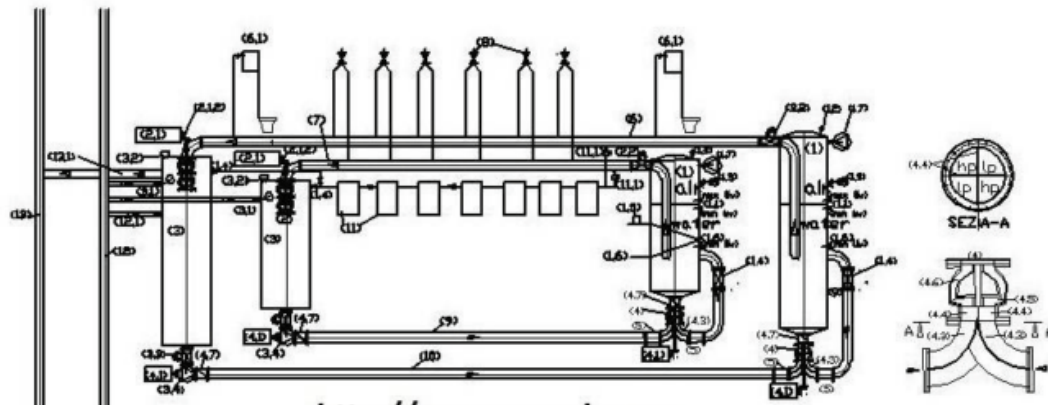


Fig. 3

**WATER LIFTING PLANT IN OPEN VESSEL AND PRESSURIZED BY AUTOCLAVES FOR WATER DISTRIBUTION AND HYDROELECTRIC PRODUCTION.**





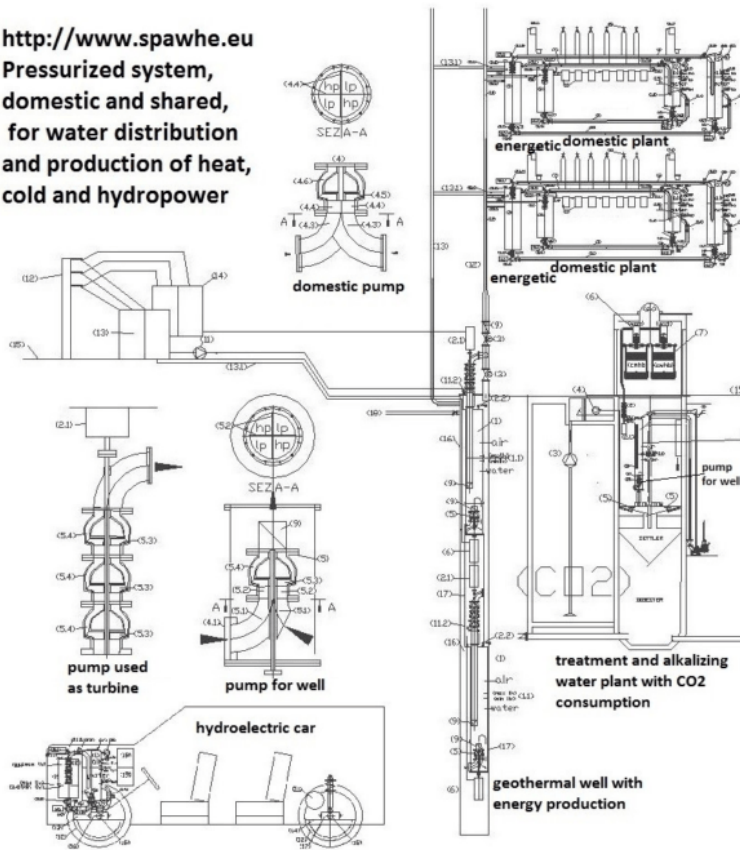
<http://www.spawhe.eu>

Domestic pressurized system for hydraulic distribution and and production of heat, cold and hydropower

I think it can all become energy producers, abolishing the bills to pay not only for the electricity but also for heating, because in the condominiums and apartments we can produce all the energy whom serves with hydropower pressurized which can produce energy and exchange heat with the ground even at the poles, the Arctic and Antarctic, where there are the famous polar night that lasts six months with conditions weather prohibitive. Probably, it has arrived the perfect energy, only with the impartial reasoning of those who are not tied to any economic power and has no money for the trials. But using rational systems already tested by nature, which only required the expertise to industrialization with modern technologies, since the current energies, do not use synergies. They are all incomplete and in competition with each other. Let's start with the most common one: The fossil energy has not solved the problem of CO2 emissions. Nuclear energy has not solved the problem of waste disposal. Organic farming is confined solely to emit organic CO2 instead of the fossil. The photo voltaic energy and wind power, are bulky, low performance, discontinuous and require materials that are already running low for the construction and energy storage. Hydropower has not solved the problem of water recycling, it requires great works, with large investments. In many cases creates more harm than good: torrential rains, finding water basins already full, produce floods. Today there is responsibility of all states on the current environmental degradation sovereign. Even the United Nations, which in 2001 produced a document called "Coding Project on the responsibility of states for internationally unlawful acts" signed by almost all sovereign states, are not free from crimes of omission. The joints of responsibility of global public officials, for myself, have created and create more damage of the eco-mafia. Which they may be identified and convicted, while the half scientific and technological truths, half-cleansings, half energies is difficult to locate them. You can unmask only with the most complete alternative projects. But who has the power to develop more comprehensive plans of governments and multinationals? Myself as a designer and inventor could only put on paper how, in his view, should generally be designed plants that should never be only purifying and never just energy. Politics, economics, philosophy alternatives are important, but do not prove anything. All problems, even those social resolve with the transparency of studying, which must be complete, leaving no pending cycles, especially public ones, should be the guide and example for private studying. Why the public and private powerful continue to fund, develop technologically advanced solutions, but still incomplete, and lacking of a global logic in all sectors? The industrial Taylorism taught to the undersigned in many years of work that a great series product can be produced in many different ways, but only one is the best: One that use better the industrial organization and the maximum automation. When I tired of the big industry has moved to work in the environmental sector, I have noticed that the environmental and energy Taylorism was never born. Therefore, things are not done in the best way, but worse. If it was born, It would change everything, how did SPAWHE, unfortunately, only virtually, being only the web site of a pensioner with no money. He would still taught the industrial Taylorism that the internal combustion engine on transportation could not be mounted, not being able to close the carbon cycle according to the rules required by the nature. There would be an exchange of positive experiences between industry and the environment, instead of the current exchange code of silence to hide their mistakes. You can find the new way to produce low-cost and cleanly electric power, heat and cold in the apartments and condominiums in all seasons and all hours and in every place of earth on <http://www.spawhe.eu/pressurized-domestic-hydraulic-energy-system/>. For a long time I seek public and private partners to achieve together this great adventure.

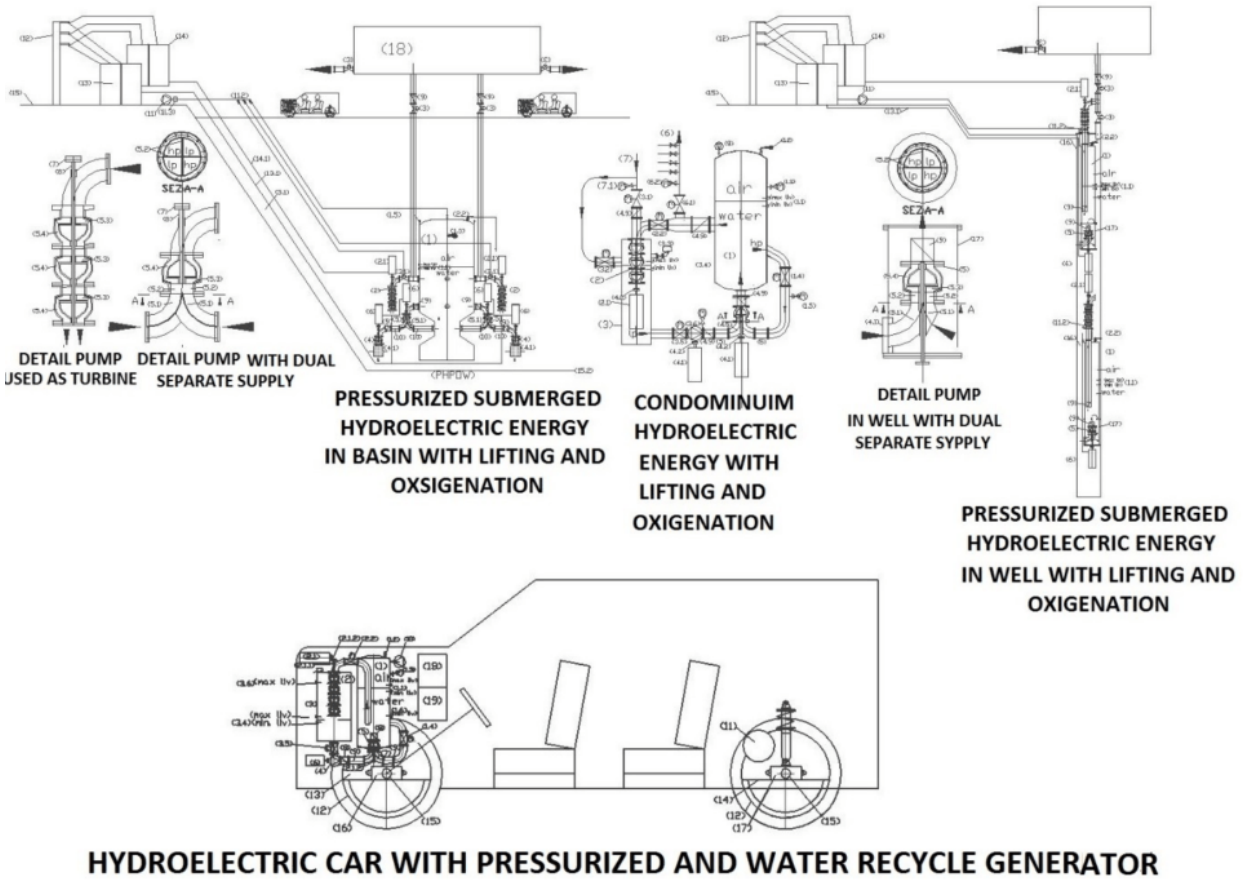
# INTERACTIVE ENERGY BETWEEN WATER AND AIR, WHICH DOES NOT COST ANYTHING AND DEPURA THE ENVIRONMENT, CAN 'ENTER IN EVERY HOUSING, OR HUT OR IGLOO' OF THE EARTH

<http://www.spawhe.eu>  
**Pressurized system,  
 domestic and shared,  
 for water distribution  
 and production of heat,  
 cold and hydropower**



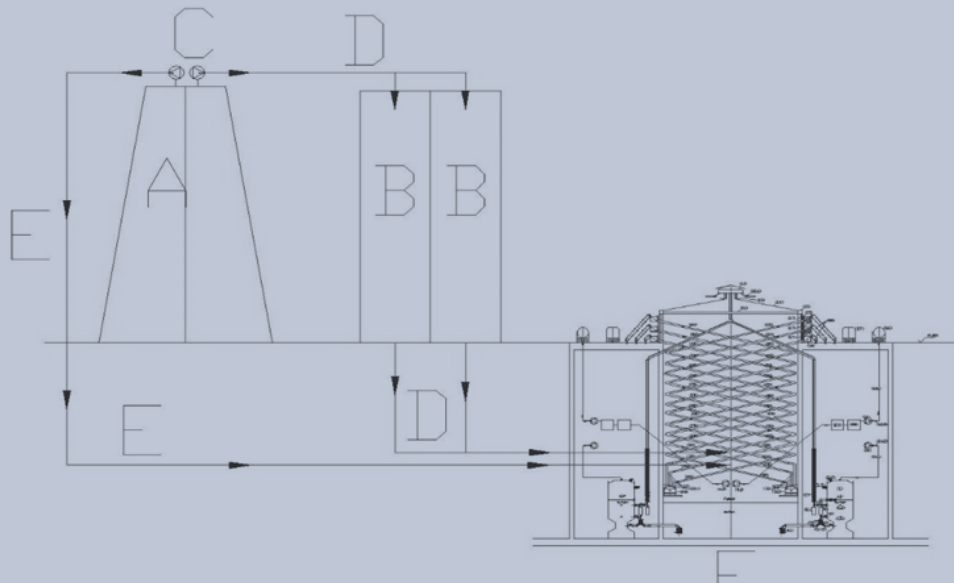
At the beginning of a new year I like to communicate a message of hope. Of course, the hope is not directed to the powerful, but to the common people. I think it can all become energy producers, abolishing the bills to pay not only for the electricity but also for heating, because in the condominiums and apartments we can produce all the energy whom serves with hydropower pressurized which can produce energy and exchange heat with the ground even at the poles, the Arctic and Antarctic, where there are the famous polar night that lasts six months with conditions weather prohibitive. Probably, it has arrived the perfect energy, only with the impartial reasoning of those who are not tied to any economic power and has no money for the trials. But using rational systems already tested by nature, which only required the expertise to industrialization with modern technologies, since the current energies, do not use synergies. They are all incomplete and in competition with each other. Let's start with the most common one: The fossil energy has not solved the problem of CO2 emissions. Nuclear energy has not solved the problem of waste disposal. Organic farming is confined solely to emit organic CO2 instead of the fossil. The photo voltaic energy and wind power, are bulky, low performance, discontinuous and require materials that are already running low for the construction and energy storage. Hydropower has not solved the problem of water recycling, it requires great works, with large investments. In many cases creates more harm than good: torrential rains, finding water basins already full, produce floods. Today there is responsibility of all states on the current environmental degradation sovereign. Even the United Nations, which in 2001 produced a document called "Coding Project on the responsibility of states for internationally unlawful acts" signed by almost all sovereign states, are not free from crimes of omission. The joints of responsibility of global public officials, for my self, have created and create more damage of the eco-mafia. Which they may be identified and convicted, while the half scientific and technological truths, half-deansings, half energies is difficult to locate them. You can unmask only with the most complete alternative projects. But who has the power to develop more comprehensive plans of governments and multinationals? Myself as a designer and inventor could only put on paper now, in his view, should generally be designed plants that should never be only purifying and never just energy. Politics, economics, philosophy alternatives are important, but do not prove anything. All problems, even those social resolve with the transparency of studying, which must be complete, leaving no pending cycles, especially public ones, should be the guide and example for private studying. Why the public and private powerful continue to fund, develop technologically advanced solutions, but still incomplete, and lacking of a global logic in all sectors? The industrial Taylorism taught to the undersigned in many years of work that a great series product can be produced in many different ways, but only one is the best: One that use better the industrial organization and the maximum automation. When I tired of the big industry has moved to work in the environmental sector, I have noticed that the environmental and energy Taylorism was never born. Therefore, things are not done in the best way, but worse. If it was born, it would change everything, how did SPAWHE, unfortunately, only virtually, being only the web site of a pensioner with no money. He would still taught the industrial Taylorism that the internal combustion engine on transportation could not be mounted, not being able to close the carbon cycle according to the rules required by the nature. There would be an exchange of positive experiences between industry and the environment, instead of the current exchange code of silence to hide their mistakes. You can find the new way to produce low-cost and clean electric power, heat and cold in the apartments and condominiums in all seasons and all hours and in every place of earth on <http://www.spawhe.eu/pressurized-domestic-hydraulic-energy-system/>. I seek public and private partners to achieve together this venture.

**Some hydroelectric energy solutions pressurized with compressed air**





## CALCAREOUS GREENHOUSES FOR FUMES AND DUST PURIFICATION SERRE CALCAREE PER DEPURAZIONE FUMI E POLVERI

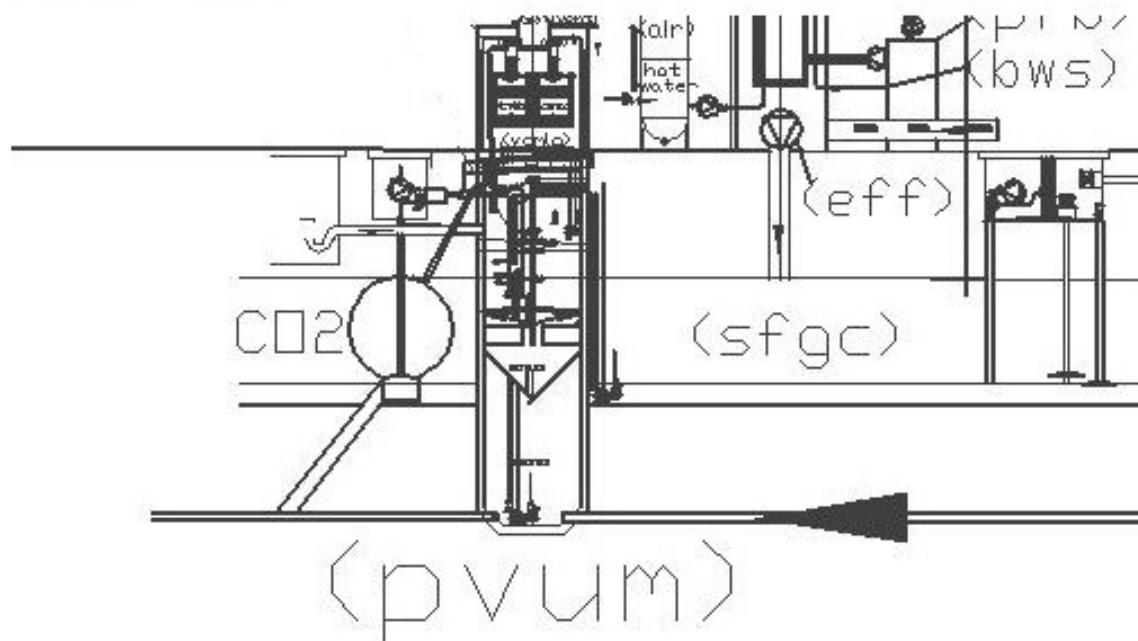


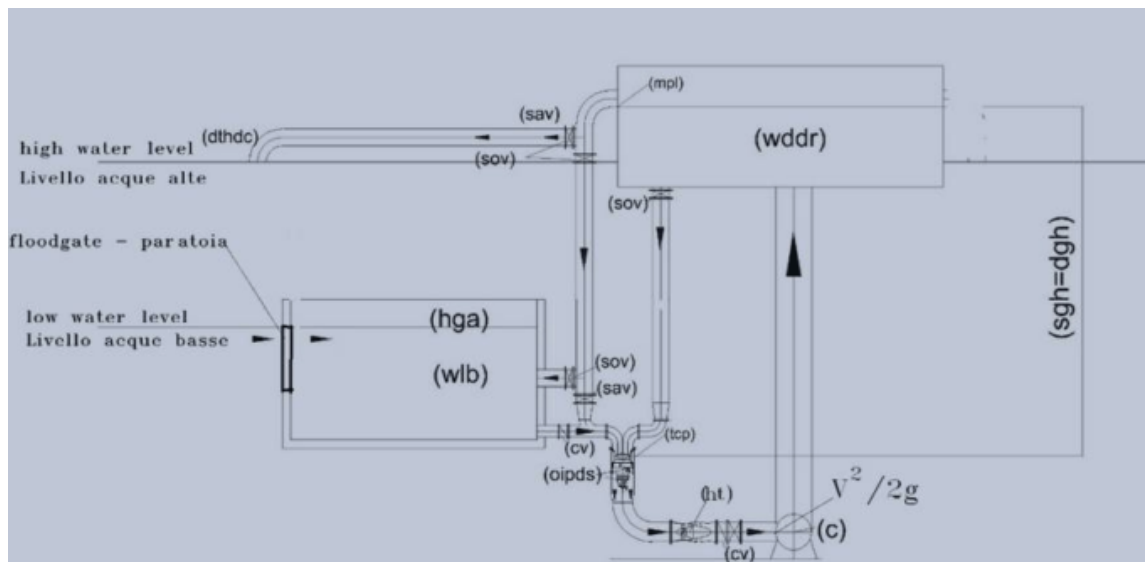
The Figure shows the connection scheme to the world's most polluting thermal plants. Where A represents a blast furnace, incinerator, cement plant, a large thermal power plant, an oven for the production of lime. B represents the current filtration system of plants A which clearly are not sufficient to purify globally. C are the fumes and dust extraction fans. D and E, are the paths of the dust up to the inside of the calcareous greenhouse F, which purifies them by consuming the CO<sub>2</sub> the SO<sub>x</sub> and NO<sub>x</sub> contained in the fumes while producing compressed hydroelectric energy.

La Figura mostra lo schema di collegamento agli impianti termici più inquinanti al mondo. Dove A rappresenta un altoforno, inceneritore, cementificio, una grande centrale termica, un forno per la produzione della calce. B rappresenta l'attuale sistema di filtrazione degli impianti A che chiaramente non sono sufficienti a depurare globalmente. C sono i ventilatori di estrazione dei fumi e delle polveri. D ed E, sono i percorsi delle polveri fino all'interno della serra calcarea F, che li depura consumando il CO<sub>2</sub> i SO<sub>x</sub> e NO<sub>x</sub> contenuti nei fumi mentre si produce energia idroelettrica compressa.

<http://www.spawhe.eu>

In urban global purification, with hydropower pressurized, CO<sub>2</sub> is subtracted to the environment by storing in underground reservoirs, compressing it along to polluted air and using it to oxidize the water by means of artificial rains in the limestone greenhouses, not necessarily overlapping the purification modules (they can also be made in small local embedded in buildings), which return the water to the purification modules. Are produced simultaneously to oxidation, carbonates in sewage and rainwater, which go to combat acidification of lakes and seas. The all, while it produces more energy than it consumes, because the compressed air is an energy accumulator which transfers its pressure to water that produce electrical energy in a pump used as a turbine, while a pump with the dual power supply separate until to the impeller, inserts the water with a very low energy cost in the recycling circuit of the pressurized tank that feeds the pump used as a turbine. The oxygen which dissolves in the water to the compressed air pressure effect accelerates the purification process of water. All this does not exist in any city in the world. <http://www.spawhe.eu/cop22-failed-international-crime-of-states-not-punished/>; <http://www.spawhe.eu/two-environmental-and-energy-inventions-for-the-marrakech-summit/>; <http://www.spawhe.eu/the-pressurized-submerged-hydroelectric/>





(oipds) = overturned intubate pump dual supply = pompa intubata con doppia alimentazione  
 (it) = intubate turbine = turbina intubata

### Hydraulic scheme for protection from high waters with energy production by means of combining pumps with double suction supply and hydraulic turbines

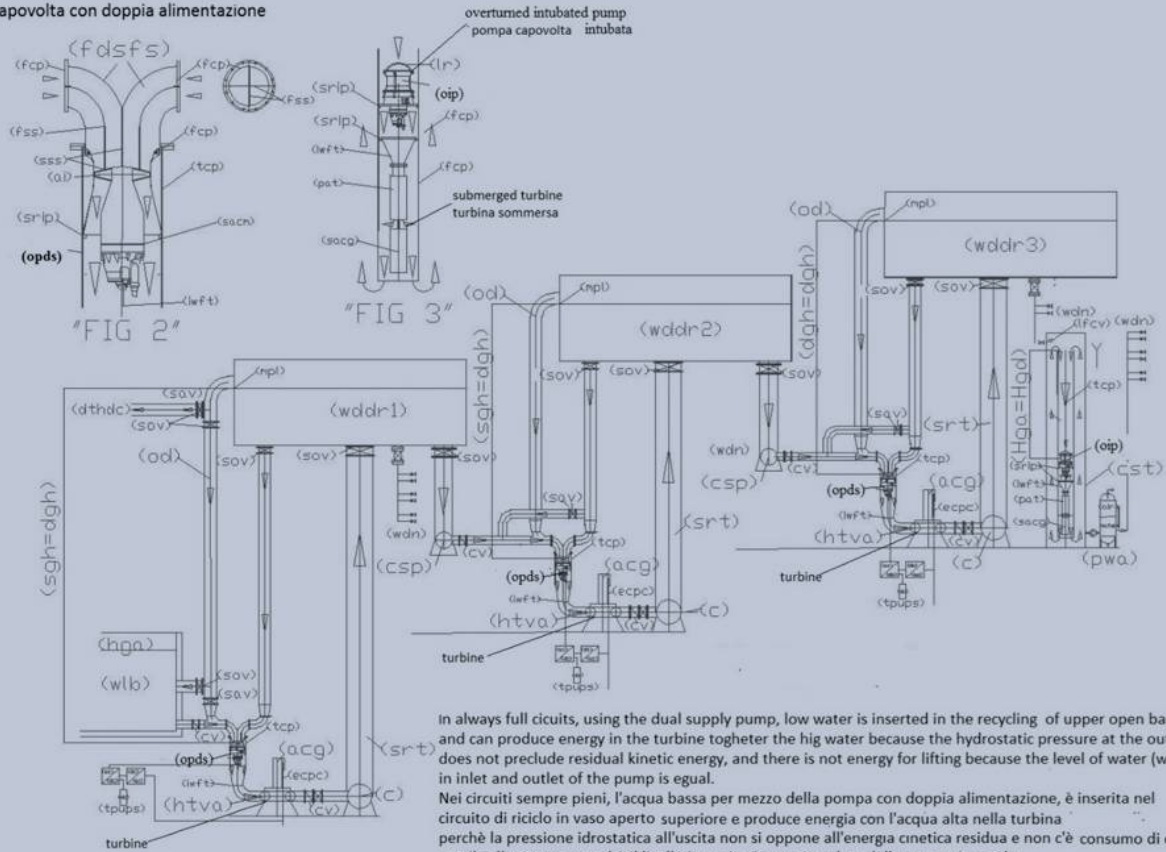
This scheme is very important because it could be an alternative or supplementary to the Mose in Venice and to the many similar cases where there is the danger of the raising of the sea waters of lakes and rivers. It allows produce energy for the whole year by recycling the water from the reservoir (wddr) with both aspiring mouths, and when you need to keep low water from the side of the basin (wlb) which represents the historic center of Venice or an agricultural area subject to flooding, one of the two suction inlets, after closing of floodgates that feed the channel, is fed by low waters, making skim water raised in the high waters, beyond the gates shut, limiting damages even if the water exceed the gates themselves, continuing to produce energy even during the flood. In fact, this scheme allows produce energy in the phase of descent, taking advantage of the hydrostatic head of the upper reservoir on the pump and consume very little to recycle the water in the basin (wddr), as being that always filled the basin does not consume any energy for lifting but only the pressure drop at the outlet ( $V^2 / 2g$ ) and negligible pressure losses in the pipes and valves, because the turbine absorbs almost all the kinetic energy produced. Without the invention of the dual supply suction pumps, water lifting should be done with other pumps that consume energy for lifting, being unable to enter the water in energy-recycling loop over represented.

### Schema idraulico per protezione dalle acque alte con produzione di energia per mezzo dell'abbinamento di pompe con doppia alimentazione aspirante e turbine idrauliche

Questo Schema è molto importante perché poteva essere una soluzione alternativa o integrativa al Mose di Venezia e ai tanti casi simili dove c'è il pericolo dell'innalzamento delle acque del mare dei laghi e dei fiumi. Esso consente di produrre energia per tutto l'anno riciclando l'acqua del bacino (wddr) con entrambe le bocche aspiranti, e quando è necessario tenere basse le acque dal lato del bacino (wlb) che rappresenta il centro storico della città lagunare o di una zona agricola soggetta ad allagamenti, una delle due bocche aspiranti, previo chiusura delle paratoie che alimentano i canali, è alimentata dalle acque basse, facendo sfiorare le acque sollevate nelle acque alte, oltre le paratoie di intercettazione, limitando i danni anche nel caso che l'acqua superi le paratoie stesse, continuando a produrre energia anche durante l'alluvione. Infatti, questo schema consente di produrre energia nella fase di discesa, sfruttando il battente idrostatico del bacino superiore sulla pompa e di consumarne pochissima per riciclare l'acqua nel bacino (wddr), poiché essendo tale bacino sempre pieno non si consuma energia per il sollevamento ma soltanto la perdita di carico allo sbocco ( $V^2/2g$ ) e le trascurabili perdite di carico nei tubi e valvole, perché la turbina assorbe quasi tutta l'energia cinetica prodotta. Senza l'invenzione delle pompe con doppia alimentazione aspirante, il sollevamento dell'acqua si dovrebbe fare con altre pompe che consumerebbero energia per il sollevamento, non potendo inserire l'acqua nel circuito di riciclo energetico sopra rappresentato.

overturned pump with dual supply (opds)

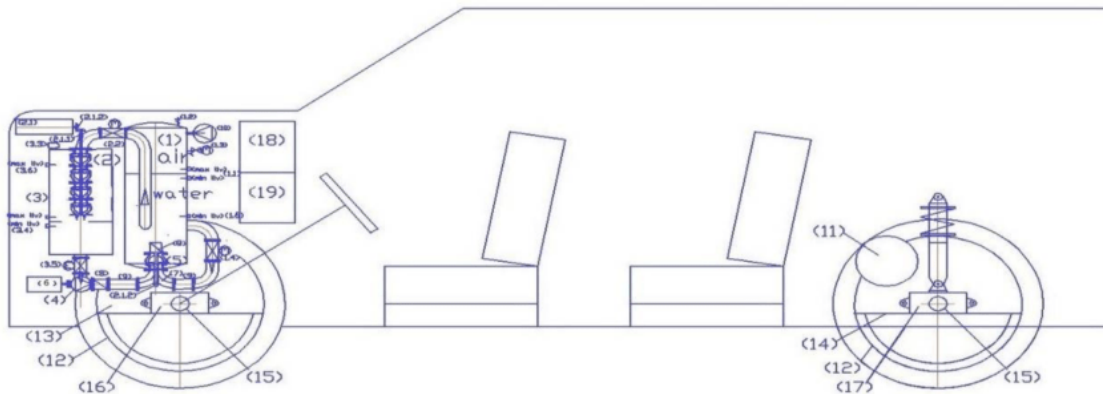
pompa capovolta con doppia alimentazione



in always full circuits, using the dual supply pump, low water is inserted in the recycling of upper open basin and can produce energy in the turbine together the hig water because the hydrostatic pressure at the outlet does not preclude residual kinetic energy, and there is not energy for lifting because the level of water (wddr) in inlet and outlet of the pump is equal.

Nei circuiti sempre pieni, l'acqua bassa per mezzo della pompa con doppia alimentazione, è inserita nel circuito di riciclo in vaso aperto superiore e produce energia con l'acqua alta nella turbina perchè la pressione idrostatica all'uscita non si oppone all'energia cinetica residua e non c'è consumo di energia per il sollevamento perchè il livello in aspirazione e mandata della pompa è uguale.

# CAR WITH HYDRO POWER ENGINE



<http://www.spawhe.eu/hydroelectric-power-auto-with-torque-peripheral-to-the-wheels-novit%C3%A0/>

Legend: (1) autoclave pressurized tank; (1.1) level regulator with capacitive probes; (1.2) safety valve; (1.3) manometer with shut-off valve; (1.4) motorized valve flow control with position transmitter; (1.5) pressure or flow transmitter; (1.6) minimum level probe in the start system; (2) pump used as a turbine (pat); (2.1) alternating current generator; (2.1.1) bushing with sealing ring; (2.1.2) angle diverter with conical gears; (2.1.3) transmission shaft; (2.1.4) transmission shaft protection tube (2.1.5) double curve with septa crossed separators in low pressure (LP) and high pressure (hp); (2.1.6) septa separators of flow; (2.1.7) closed type; (2.1.8) Diffuser of the pump; (2.2) motorized valve to supply turbine with flow adjustment; (3) water transit tank at atmospheric pressure and containment pat; (3.1) motorized valve to feed pressurized water network; (3.2) motorized valve bypass supply at low pressure; (3.3) air valves; (3.4) Water level control with capacitance probes; (3.5) motorized valve for water supply at low pressure; (3.6) maximum level probe in the start system; (4) electric pump to supply in low pressure (5) electric pump with double separate supply until the impeller; (6) pump drive motor, with variable speed, controlled by an inverter; (7) double curve with septa crossed separators in low pressure (LP) and high pressure (hp); (7.1) septa to flow separators; (8) check valve. (9) flow diverter stub pipe; (10) electrocompressor; (11) self braking engine with variable revs (11.1) sprocket gears; (12) wheel rim; 12.1 ring gear; (13) motorization support of front wheel; (14) motorization support of rear wheel; (15) stationary shaft; (15.1) bearing; (15.2) wheel rim mounting flange; 15.3 brake disc; (16) front Axle; (17) rear axle; (18) electric command and control panel; (19) heat pump for summer and winter air conditioning.

<http://www.spawhe.eu> FLYING AND FLOATING CARS WITH INTERACTIVE GLOBAL LINEAR MOTORS, THRUST OF NEWTON AND LORENTZ.

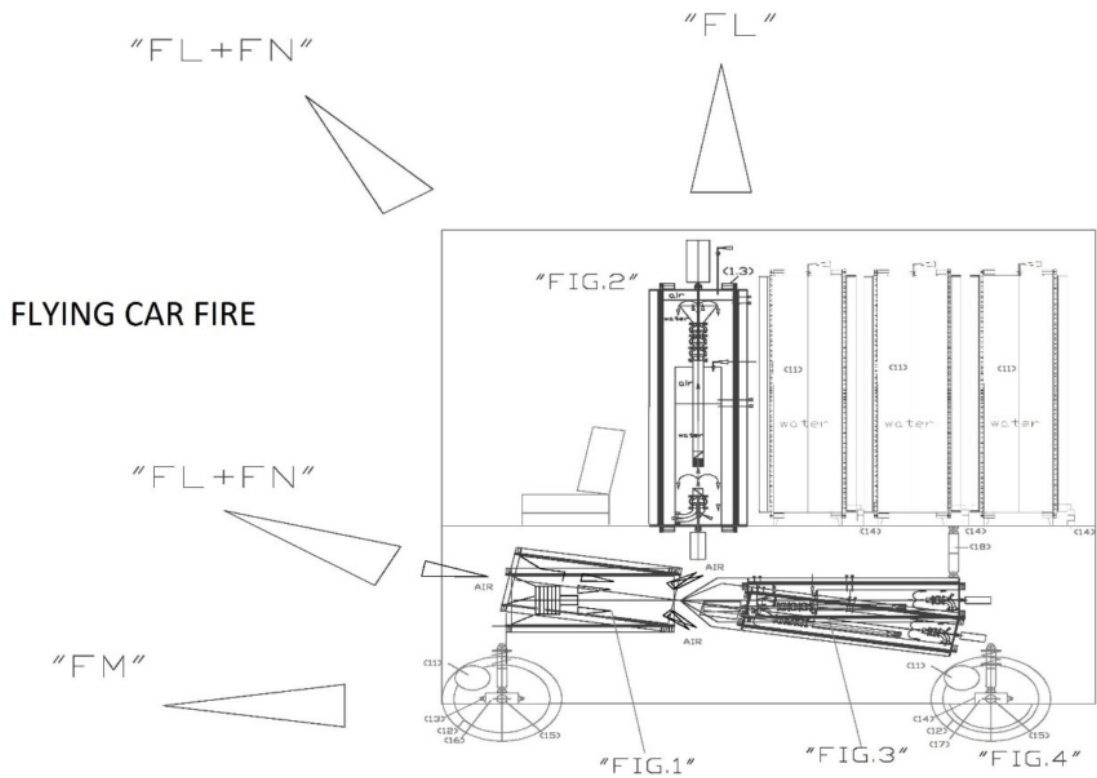


FIG. 6: Lorentz thrust (FL), Newton thrust (FN), drive thrust due to the wheels (FM), electric wheel motors (11), wheels (12), support support for the front wheel drive (13 ) and rear (14), front axle (16) equipped with an articulated frame to allow minimum turning radii, rigid rear axle (17), electric actuator (18) that changes the inclination of the global linear motor placed under the floor of the car (Fig 1+ Fig3) cylindrical water tanks (11) equipped with sliding tracks for the permanent magnets and external solenoids (1.8) and accessories (1.3,1.4, 1.5. 1.6,1.7) powered by the primary energy produced by the current generators (3.1) of both global linear motors (inside and outside the passenger compartment).

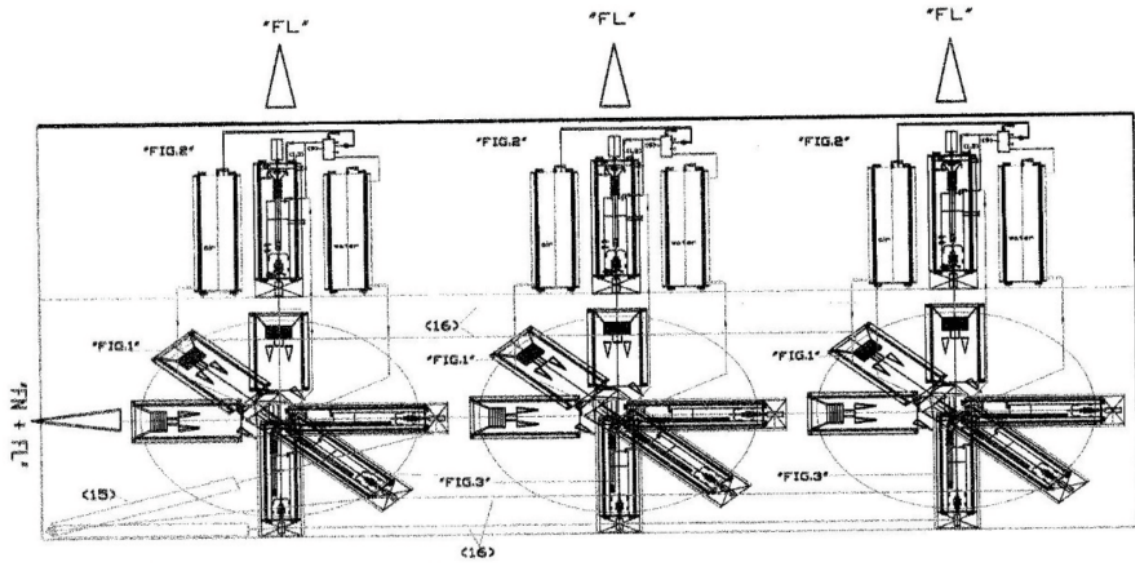
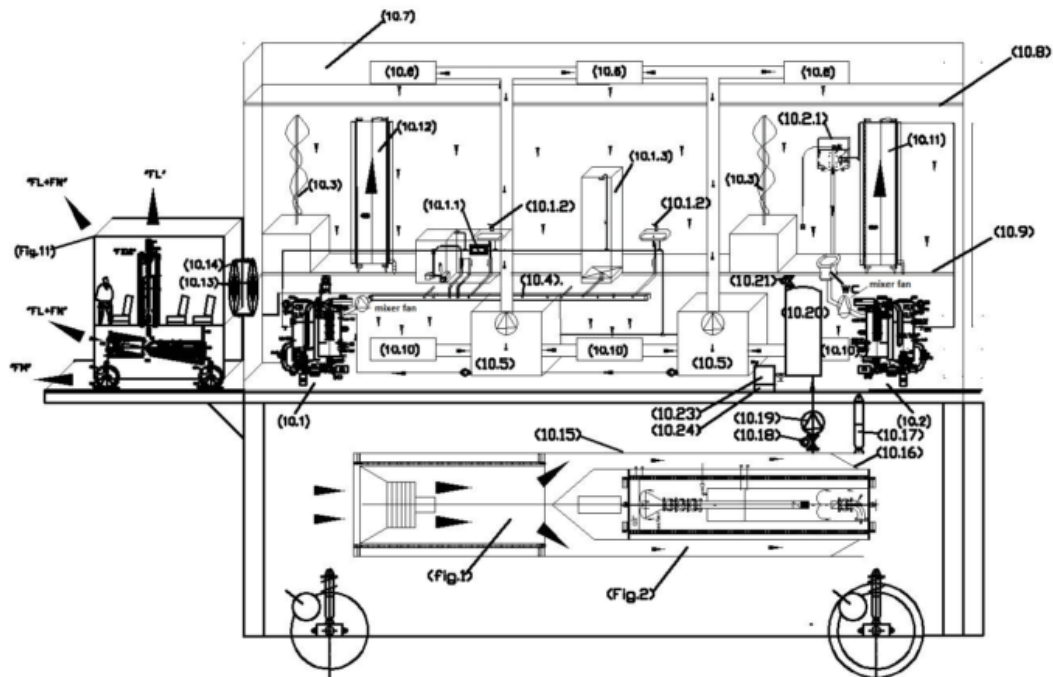


Fig. 5: Longitudinal section of a generic means of land and space transport: Cross section of a generic means of land and space transport: This diagram shows the figures concerning the components used to make the Lorentz thrust (FL, the Newton's thrust (FN), the position of the telescopic hydraulic cylinders (15) (one for each side of the global linear motor of fig1), which make the rotation of an arc of circumference of 90 degrees to an element, through the tie rods and articulated struts (16) pivoted at the end of the systems, make all the connected global linear motors perform the same degree of rotation.

SPACE CONTAINERS WITH GLOBAL LINEAR MOTORS, INTERSTELLAR DUST CAPTURE SYSTEM AND INTERNAL SURVIVAL SYSTEMS. <https://www.spawhe.eu>

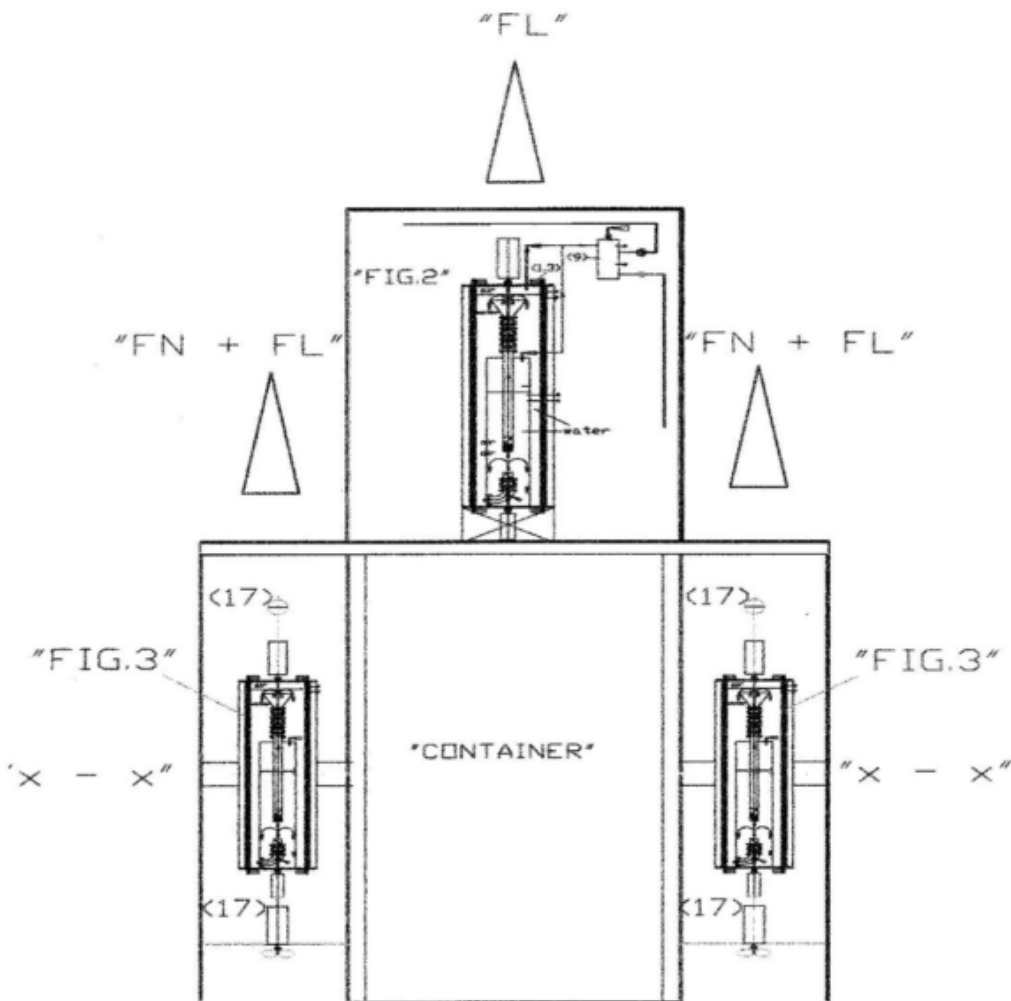


"FIG.10"

(10.1) domestic water purification plant; (10.1.1) ultraviolet disinfection system; (10.1.2) drinking water withdrawal point; (10.1.3) shower; (10.2) toilet waste water treatment plant; (10.2.1) toilet drain pan; (10.3) hydroponic cultivation; (10.4) waste water collection channel; (10.5) purification, humidification and air recycling system; (10.6) electrostatically polarized air inlet vents into the environment; (10.7) ceiling air distribution plenum; (10.8) regenerable filter ceiling in steel straw; (10.9) gridded floor with air passage; (10.10) electrostatically polarized air intake vents; (10.11) water reserve tank with external solenoid and vertical circulation of permanent magnets to produce Lorentz thrust; (10.12) compressed air reserve tank with external solenoid and vertical circulation of permanent magnets to produce Lorentz thrust; (10.13) Airtight passage porthole; (10.14) electromagnetic flexible metal bellows with external vacuum-tight gasket; (10.15) external connection steel tunnel between the electric turbofan fig1 and the compressed hydroelectric primary energy production plant of fig.2; (10.16) truncated conical sector closure of the interstellar dust collection tunnel by means of a steel rope which runs in rings external to the closing cone; (10.17) electric actuator for activating dust collection closure; (10.18) shut-off solenoid valve; (10.19) electric vacuum pump; (10.20) high vacuum dust collection tank; (10.21) air inlet solenoid valve at atmospheric pressure; (10.22) solenoid valve for interstellar dust output; (10.23) electrostatic filter; (10.24) removable container for interstellar dust; (Fig. 11) interstellar local displacement vehicle.

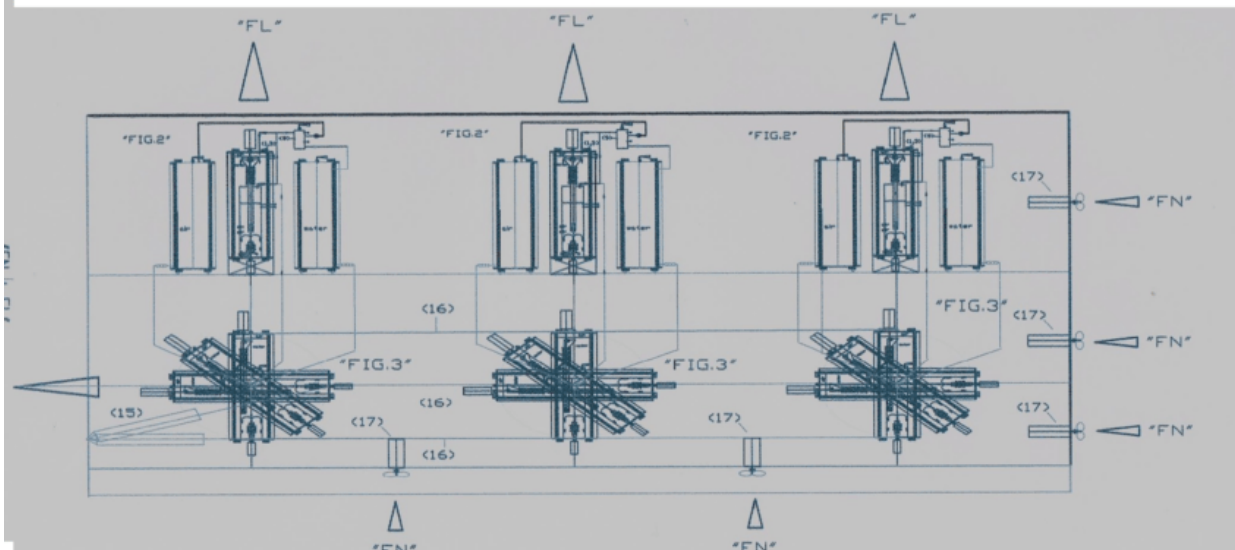


<http://www.spawhe.eu> AEROSPACE AND SUBMARINE TRANSPORT SYSTEM WITH INTERACTIVE PRIMARY AND INDUCTIVE LINEAR MOTORS



Figures 6 show the cross section of a generic submarine transport vehicle, which is very similar to the aerospace system, in that it transports watertight containers to the ocean floor. The difference consists in the fact that also the external frame (T) which contains the lateral primary linear motors can be hermetically closed. Just keep the Newton and Lorentz thrusts separate, making the first with external propellers connected to the electric motors (17) located inside the frame. The submarines will not need to empty and fill the sealed chambers with water to adjust the depth of navigation because the weight will be balanced by the force of Lorentz and Newton according to the formula already mentioned  $P = m * (a - aL - aN)$ , where "AL" is the acceleration artificially produced with the Lorentz force and "aN" that produced by the reaction force of Newton. The submarines of the future will be much faster, cheaper and safer than the current submarines and will be able to descend to greater depths than the current ones. The legend is not reported being it is already reported in figures 2 and others used, to which the electric turbo fans which have been replaced by normal marine propellers (17) has not been reported. The electromagnetic thrust is produced entirely with the solenoids external to the fluid dynamic systems that also produce primary energy.

<http://www.spawhe.eu> AEROSPACE AND SUBMARINE TRANSPORT SYSTEM WITH INTERACTIVE PRIMARY AND INDUCTIVE LINEAR MOTORS

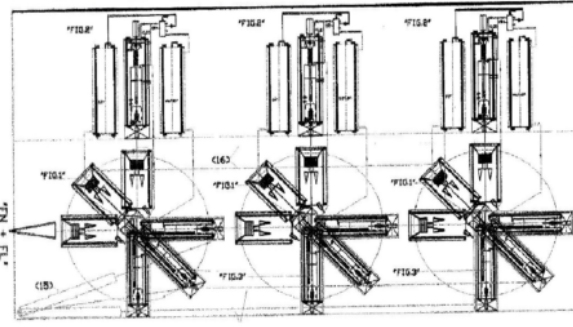
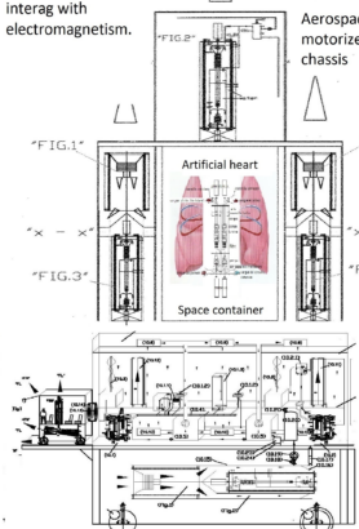


Figures 7 show the longitudinal section of a generic submarine transport vehicle, which is very similar to the aerospace system, in that it transports watertight containers to the ocean floor. The difference consists in the fact that also the external frame (T) which contains the lateral primary linear motors can be hermetically closed. Just keep the Newton and Lorentz thrusts separate, making the first with external propellers connected to the electric motors (17) located inside the frame. The submarines will not need to empty and fill the sealed chambers with water to adjust the depth of navigation because the weight will be balanced by the force of Lorentz and Newton according to the formula already mentioned  $P = m * (a - aL - aN)$ , where "AL" is the acceleration artificially produced with the Lorentz force and "aN" that produced by the reaction force of Newton. The submarines of the future will be much faster, cheaper and safer than the current submarines and will be able to descend to greater depths than the current ones. The legend is not reported being it is already reported in figures 2 and others used, to which the electric turbo fans which have been replaced by normal marine propellers (17) has not been reported. The electromagnetic thrust is produced entirely with the solenoids external to the fluid dynamic systems that also produce primary energy.

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**If it is true that the Taliban also have sponsors and financiers among world governments, the only world system that does not have sponsors and financiers is the SPAWHE system. Space navigation system with the SPAWHE rhyme not tested by governments and world sciences.**

Aeronautical and space evolution cannot take place with fuels, rockets and aerodynamics, but with interactive linear motors, the associated thrusts of Newton and Lorentz, the artificial heart oxygenating blood, the interstellar dust capture system and the implants based on fluid dynamic principles that interact with electromagnetism.



**SPAWHE, with the help of God, could eliminate global pollution, feed the entire world population with artificial welling without working the earth, extend human life, connect terrestrial electromagnetism with that of space. Consequently, to allow terrestrials to colonize space without energy costs and large spaceships, but very simple interactive terrestrial plants still misunderstood and Boycotted by world public and private science at the service of current governments and multinationals. In fact, Albert Einstein only revealed how specific and general relativity works. Everything else is explained in the nursery rhyme of <http://www.SPAWHE.eu>.**

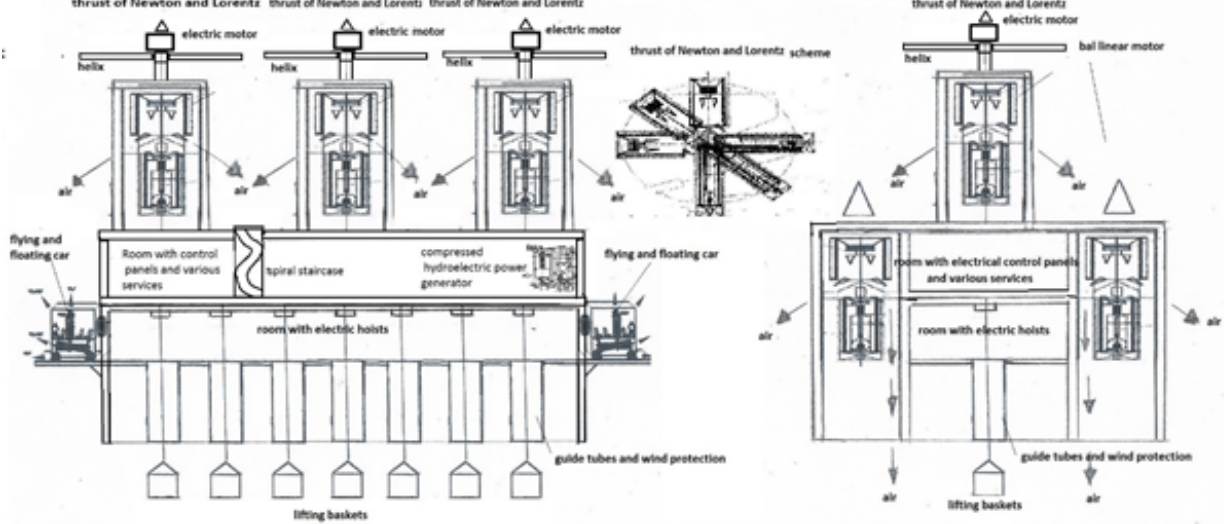
Energy autonomous space container with inter-space dust capture system, internal space survival plants and local displacement vehicle.

Dear Editors and Readers, I report below the rhyme of unwanted inventions by science and world governments updated up to the use of interstellar dust in space containers. My original idea was to clean the combustion air from CO<sub>2</sub>, which I also patented internationally, in the general disinterest of governments, science and entrepreneurs, by producing carbonates in the water of purification plants at room temperature. Obviously these plants would have had to be modified all over the world according to my projects to purify water and air together, exploiting not only inorganic chemistry, but also the physical principles of Henry and Dalton regarding the solubility of gases in water as a function of pressure. Unfortunately, the world ruling class, including the scientific one, canceled my patents without financing them. I insisted on my solution, to make it more and more economical in its initial weak point, which were the high energy costs due to the large circulation of water needed, due to the low solubility of carbonates in the water, until I realized that by modifying the pumps, and the way turbines and autoclaves work, we can produce large quantities of energy without any type of fuel. Unfortunately, I have done nothing but increase the silence of the world ruling class, including that of science, which divided into many separate sectors, has forgotten the existence of the fluid dynamic principles that if fully applied would produce all the primary earth energy for free and space that serves to power induced electromagnetic energy without resorting to thermodynamics and nuclear energy and current renewables. It is sufficient only to increase the operating pressures of the systems, modify the circulation pumps and make the machines work differently. In fact, natural interactive systems expel, with the times required by nature, the elements extraneous to natural cycles, due to accidental polluting phenomena, including direct and indirect thermal effects due to volcanic explosions, to natural fires that have always existed on the planet. The current industrial activities of men have multiplied exponentially the elements extraneous to natural cycles, therefore nature is no longer able to restore interactive balances. Here is the nursery rhyme:

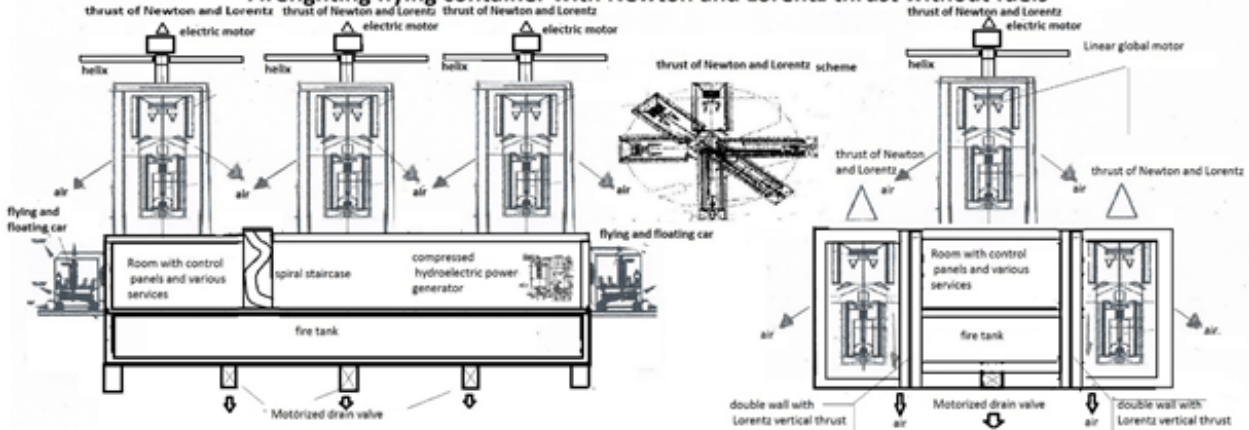
"In my patent filings and on the website <https://www.spawhe.eu>, I explain how we should have created global plants that purify both fumes and water at the same time before they go to pollute the soils, rivers, lakes and seas. Having not done this in any country in the world, it has not been possible to advance the state of the art of purification to make it known to other countries. Therefore, the advancement of the state of the global purification art has not occurred. Consequently, it was not even possible to notice that the water circulation pumps, if we make them work in the direction of gravitational force, by placing them in series with the turbines, we could extract the energy directly from the environment. Having not done this, it was not possible to realize that the water circulation pumps, if in addition to making them pump in the direction of gravitational force, we modify them on the suction side and make them another inlet clearly separated from the main one up to the same impeller, we can always use the same water to create energy because we use one feed to recycle the water from the upper basin and the other feed to introduce into the same impeller the water discharged from a turbine fed by falling water from the same upper basin. Not having done this, it was not possible to think that by replacing the upper basin with a pressurized autoclave with compressed air, it being understood that we use a turbine connected to the outlet of the autoclave, we can recover the water drained from the turbine and insert it back into the autoclave, whose pressurized water is recycled with the same impeller of the pump by means of the second supply. In this way, with the same water and the same compressed air, we would have produced a current generator that extracts energy from the environment, with quite small dimensions. Having not done this, it was not possible to further reduce the dimensions of this current generator by increasing the operating pressure of the autoclave in order to be able to mount it on cars and trucks, on agricultural tractors. Not having done this, it was not possible to think that the overall dimensions can still be reduced by using submersible pumps as turbines mounted directly in cylindrical tubes that would act as autoclaves. Therefore, these groups could be used to be inserted directly into the wells to raise the water and at the same time oxygenate the aquifers which today are polluted by agricultural fertilizers, herbicides and pesticides and fecal coliforms. In fact, we know that part of the air that pressurizes the autoclave dissolves in the water according to Henry's principle, purifying the water for free. Not having done this, it was not possible to think that the overall dimensions could be reduced even further. Even miniaturized and instead of purifying the water from the wells we could purify the human blood, placing two small autoclaves side by side that would replace the right and left ventricles, creating energetically autonomous artificial hearts that would feed the systemic circuit that oxygenates the brain and the lungs to lengthen the life of the man. Having not done this, it was not possible to think that pressurized cylindrical autoclaves can be incorporated an external cylinders containing water at atmospheric pressure, outside of which sliding tracks of permanent magnets mounted on transmission chains driven by motors can be made electric at variable revolutions that would produce an electromagnetic flux of variable intensity which would produce induced currents in a solenoid outside the same water tank. Therefore, we could produce in this tank a linear electromagnetic thrust force according to Lorentz's law at the ambient temperature, without fuel that could be added to the reaction thrust of Newton that would be produced by propellers driven by electric motors always commanded by generators of current that produce the primary hydroelectric energy, fed by submersible pumps used as turbines placed inside the central reservoirs. Not having done this, it was not possible to replace the current thermal turbofans of aircraft to travel in the atmosphere and in space with energy extracted directly from the environment, it was not possible to create flying cars, nor submarines that move with the same system without fuel. It was not possible to make the ships travel without fuel, nor to mount the same system to make mobile barriers in the sea to defend ourselves from high waters. It was not even possible to think that in the space travel of the future we can add to the global linear motors an external steel tunnel connected to the turbo fan, where it will produce a higher vacuum higher than the surrounding space vacuum and connect this tunnel with a small vacuum pump to a thickening tank of the captured powders, which will be emptied periodically letting in the atmospheric air which will feed an electrostatic filter that will recover the powders that will be used together with the other interactive purification and energy plant inventions described on the website <https://www.spawhe.eu> to make humans survive even in space without suffering physiological damage due to the absence of atmospheric pressure, gravity, food resources and raw materials to build spare parts for the machines necessary for survival in space. In fact, atmospheric air and water will fill the space caravan wagons full of human beings and will be endlessly recycled, suitably replenished with artificial photosynthesis and carbon cycle, while general gravity will be reinforced, becoming very similar, to the terrestrial one, electrostatically polarizing the paths of atmospheric conditioned air and recycled water in the interactive, energy and purification, compressed hydroelectromagnetic plants, still unknown to terrestrial science."

Luigi Antonio Pezone

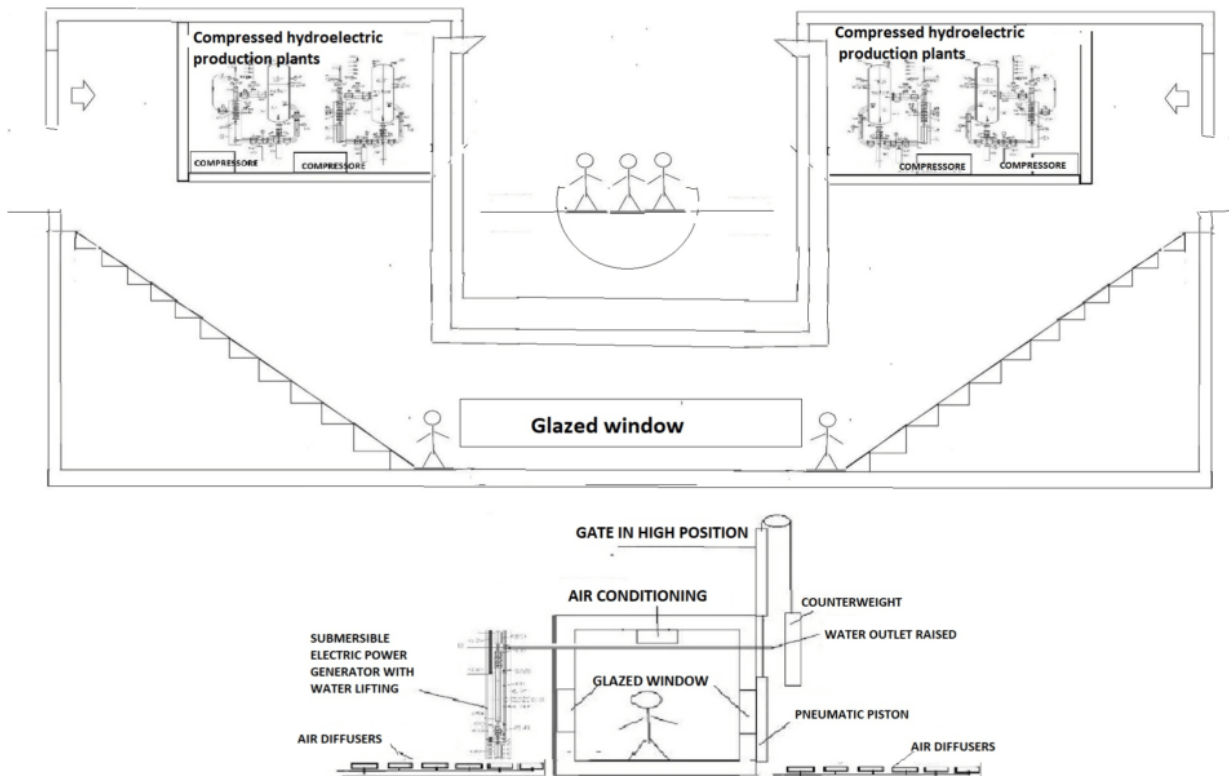
## Flying container for the rescue of migrants with Newton and Lorentz thrust without fuel



## Firefighting flying container with Newton and Lorentz thrust without fuels



## high water defense system for individual Venetian canals with view and oxidation of the seabed

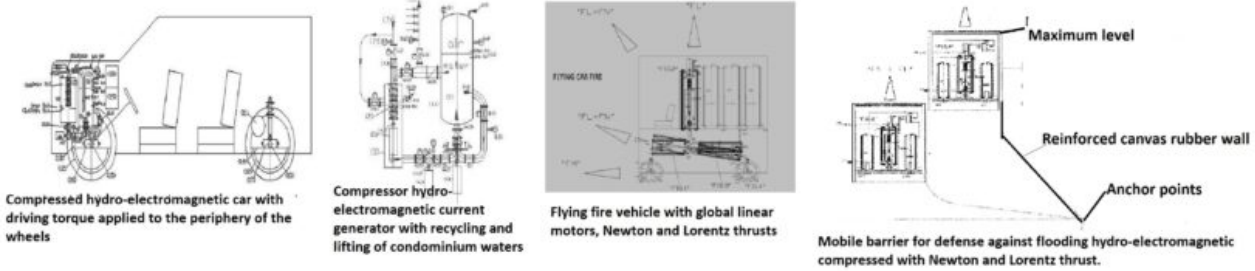
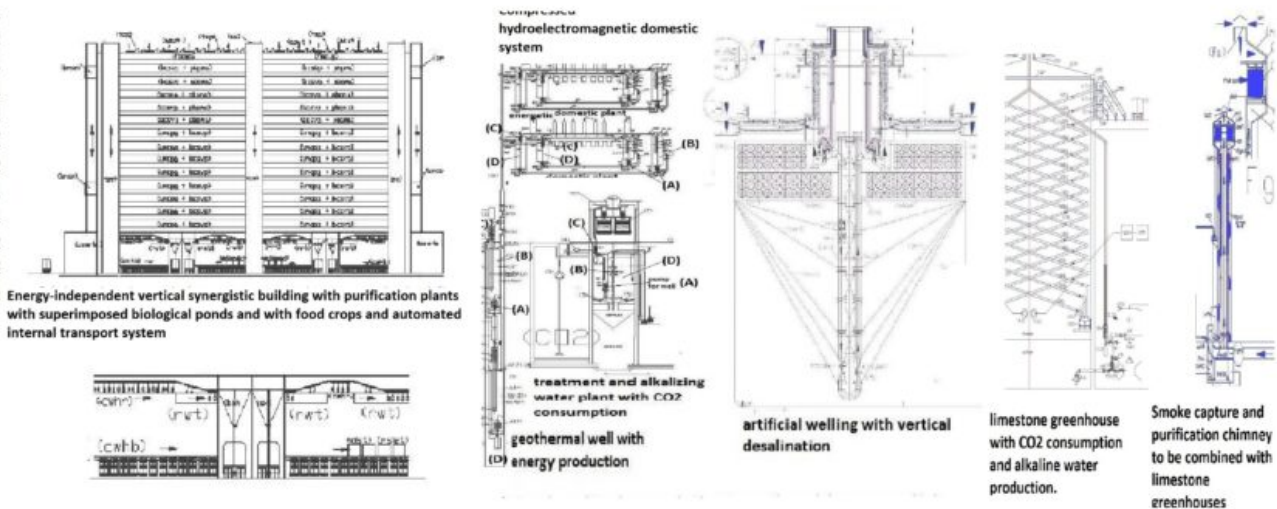
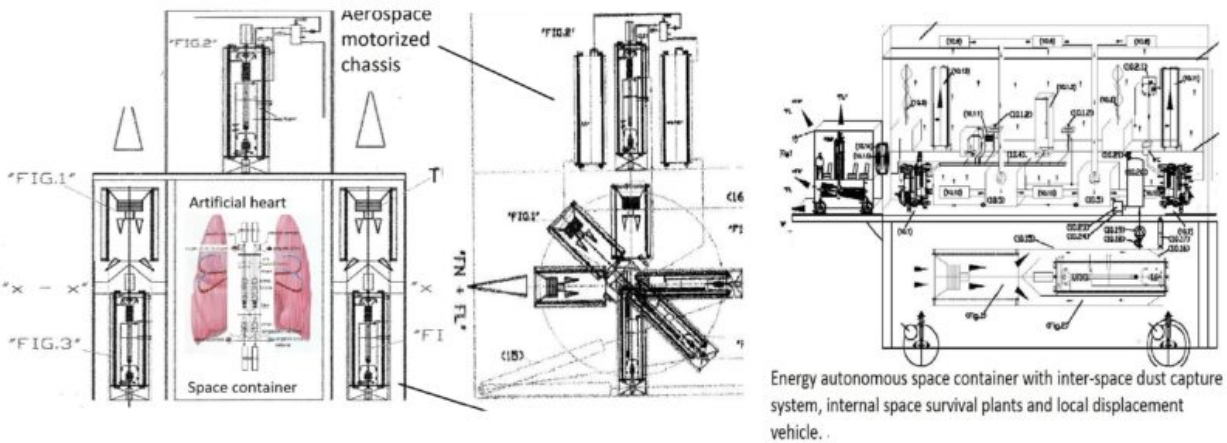


The drawing above extracted from the article

<https://www.spawhe.eu/world-governments-that-reject-the-extraction-of-clean-energy-from-the-environment-reject-a-perennial-scientific-windfall-from-the-sky/>, schematically, shows how it could be possible to create submerged crossing tunnels, especially at the ends of individual navigable canals with small boats that are not disturbed in their navigation. The energy produced through the compressed hydro-electromagnetic current generators that can be created in the access compartments to the submerged tunnel and the submerged current generators can supply all the energy needed to power the street lighting of the lagoon city, power the compressors that power the diffusers of air, raise and lower the gates and raise and return to the sea the waters that manage to infiltrate through the seals of the bulkheads. Always with energy costs equal to zero as regards the extraction, refining, transport, purification processes of the energy produced. The only costs that the citizens of lagoon cities like Venice will bear will be those due to the wear and tear of the machines that will operate throughout the year to trigger the energy and purification processes which, as we know, cannot take place on their own. These processes, as described in the title of this article are an authentic scientific windfall fallen from heaven still misunderstood by the current scientific advisors of world governments. Other than the investment and management costs that are charged to the Italian people by the monster of Venice. (each lift cost 272 thousand euros, while in 2021-2022 the costs dropped to 211 thousand euros per lift, thanks above all to improvements in procedures: for example, in the past it took 60 minutes to raise the gates, while now it takes 30).

I have not filed this further environmental and energy solution as a patent because I don't believe that the current world institutions are capable of implementing these innovations, otherwise they would have also included my other forty previous inventions on these topics, which are still waiting for some country to create them , although, legally,

no one, public or private, owes anything to the inventor, who has not paid the maintenance fees on the granted patents and has not made legal oppositions on the non-granted patents. It is clear that there is something very serious, that is not right, in the entire world ruling class.



**COP 28. Science has not understood that planet Earth could be energetically autonomous without fossil fuels and nucleated energy.**

<https://www.spawhe.eu> by luigi antonio pezone

**Conclusions**

The numerous figures reported in this article were extracted from the 110 previous articles reported on the website <https://www.spawhe.eu> which describe in detail an alternative development that has never occurred on planet Earth. So, one could infer that this website was created by the imagination of the writer, that would be me. It is instead based on physical, chemical, biological principles, existing technologies, put together by the undersigned differently in existing anthropic plants to favor and trigger the natural interactive processes that would gradually lead to global purification and the extraction of the energy source and the ideal energy carrier, already identified by nature, which are nothing other than compressible air and incompressible water, conserve respectively in the gaseous and liquid state (i.e. at normal terrestrial temperatures and pressures), so as to be able to interact both in purification and energy processes with lower costs and no unwanted side effect. Unfortunately, this global system, which consumes neither the energy source nor the energy carrier, which are automatically renewed at the end of the processes, created entirely with air in the gaseous state and water in the liquid state, has not been understood by the current consumer society, which with combustion and nuclear energy have produced immense quantities of CO<sub>2</sub> and steam which, being greenhouse gases, have altered the entire Earth's climate balance. Unfortunately, on planet Earth, we have created a ruling class that profits from the current energy and purification systems and also profits from the reconstruction works essential to repair the damage caused by the increasingly frequent storms, floods, droughts and fires throughout the world. Therefore, in the current consumer society, the few rich are becoming richer and the many poor are becoming poorer.

In the following article <https://futurism.com/the-byte/scientists-warn-climate-collapse-2100> published in the journal BioScience, it says that a document warning that "life on planet Earth is under siege" as

we continue to spiral ever faster towards environmental collapse has been co-signed by more than 15,000 scientists from 161 countries. I wonder what solutions these scientists propose other than the usual renewables which are worth nothing compared to interactive purification and energy systems. I believe I have practically demonstrated that planet Earth, unfortunately, is governed by power lobbies, not only political and economic but also scientific and academic, otherwise at least some of these inventions would have had to have been tested and we would know if they work or not. published in the journal BioScience, it says that a document warning that "life on planet Earth is under siege" as we continue to spiral ever faster towards environmental collapse has been co-signed by more than 15,000 scientists from 161 countries. I wonder what solutions these scientists propose other than the usual renewables which are worth nothing compared to interactive purification and energy systems. I believe I have practically demonstrated that planet Earth, unfortunately, is governed by power lobbies, not only political and economic but also scientific and academic, otherwise at least some of these inventions would have had to have been tested and we would know if they work or not. It was useless to explain to bureaucrats graduated from Italian and European universities that perpetual motion does not belong to my culture as an inventor as it is simply useless, not being able to consume or even produce energy. My inventions are based on a long experience acquired in the installation of industrial and environmental systems which are imperfect in terms of organizational work, since they do not sufficiently exploit the interactive principles existing in nature, due above all to the gravitational force and electromagnetism that terrestrial science has been able to invent, but not adequately exploit to extract clean primary energy at atmospheric temperature and pressure. My activity as an inventor has focused, above all, on the fluid dynamics of water and air and terrestrial electromagnetism which has nothing to do with current renewables which are in any case



mono-disciplinary commercial energies that are not able to exploit the gravitational force and terrestrial electromagnetism to connect to universal electromagnetism, to the point of adding together the Newton and Lorentz force which can only be added cold in fixed and mobile systems. In fact, all my inventions are based on improving the contacts between water and air first at a purifying level and in subsequent inventions, on improving the force that water and air can produce together coupled with terrestrial electromagnetism, which is very different from the universal one, being developed with permanent magnets, coils of wires protected with insulating paints, certainly not suitable for nuclear and thermal energy. These considerations of mine, which strangely, on planet Earth, no one seems to have made, could allow us to extract energy from the environment for free in every corner of the Earth, in small and large, fixed and mobile, fuel-free anthropic plants, nuclear energy and inefficient and cumbersome renewables, as explained extensively in my inventions and articles published on <https://www.spawhe.eu> . These considerations of mine, which strangely, on planet Earth, no one seems to have made, could allow us to extract energy from the environment for free in every corner of the Earth, in small and large, fixed and mobile, fuel-free anthropic plants, nuclear energy and inefficient and cumbersome renewables, as explained extensively in my inventions and articles published on. The old multinationals have produced global warming, also losing out economically. The new ones are equally wrong as they do not have the strength and interactivity to act where needed, when needed, in a simple and economical way, without industrial transformations, marketing and transport of energy. It is a global shame that not a single euro has yet been spent on planet Earth to experiment with interactive purification and energy solutions. Personally, I, who have lived over fifty years of current industrial and environmental experiences, am very disappointed by all the world institutions, without exception. However, I believe that planet Earth should be

governed scientifically, because only science cannot make mistakes, as long as everything is tested and verified practically through prototypes demonstrating the efficiency of the inventions before producing them in billions of specimens, as was done with the current inventions of multinationals. But also large public works such as dams which have produced more disasters than benefits. You can't accept anything sight unseen. This is why there are patents that describe to the relevant authorities how the invention will be created and how it works. But patents can have commercial production and public utility objectives. It is not difficult to identify the difference between commercial and public utility patents, yet, private inventors who deal with these types of problems are punished by legislators, to leave the field free to institutional inventors, who, as mentioned, by not paying filing fees and maintenance (paid by taxpayers), they only collaborate with multinationals, isolating inventors who try to do the work they should have done, without funding, laboratories and workshops to test interactive inventions, which are the only ones that could save the life of the planet, reduce the current gap between rich and poor, save many lives from climate disasters and even extend the human lifespan, because the human body also benefits from blood purification by means of an artificial heart that exploits the principles interactive. There needs to be a minimum level of coherence on the part of governments and the United Nations. Inventors dealing with environmental and social problems should not be required to pay fees in addition to the filing fee, which should be a symbolic fee. Even the United Nations should take on the burden of experimentation, in favor of all the countries of the world. This elementary logic does not exist in current government authorities and the United Nations. Peace is also and above all built with the right inventions in the right places. In fact, during climatic and seismic disasters, the first things that are missing are energy and clean water which would never be missing if water were the energy carrier and clean air and gravitational force

were the primary source. of world energy, as the undersigned has proposed since 2015, while science itself, which makes useless appeals, has not said a word to ask for the experimentation of interactive inventions. My proposal published on 28. 02. 2020. to create a joint-stock company to make up for the errors, omissions and wasted opportunities by science and the world's centers of power, up to now, has not raised even a single euro. <http://www.spawhe.eu/a-global-stock-company-against-errors-omissions-and-opportunities-wasted-by-science-and-world-power-centers/>.

For all these reasons I affirm that COP 28 cannot be anything other than the usual conference on scientific hypocrisy, like the twenty-seven previous COPs.

By pure coincidence? On 26.11.2023 at 8.25 pm I had just published the following article <https://www.spawhe.eu/cop-28-the-usual-conference-of-global-scientific-hypocrisy-like-the-twenty-seven-previous-cops/>, when I received a proposal to purchase my website. I responded to this proposal, the sender of which I do not disclose, in the following way: I cannot sell my website as it is inextricably linked to my inventions which were conceived in interest of the planet and of the entire world population, therefore my aforementioned proposal to create a joint-stock company experimenting with new solutions not tested until now is still valid. Those who believe in these proposals have the opportunity to buy the greatest number of shares, demonstrating that they truly want peace and general development. As I wrote in this article and in previous articles, the current United Nations which manages COPs, the intellectual and industrial property of patents, have spectacularly failed in their task, allowing the production of global warming, the unequal distribution of world wealth. Probably, even wars and the massacre of civilians and children, who are completely unrelated to the current power

games, who in any case have scientific ignorance, because science cannot be wrong if it experiments with all the solutions, before producing them on a large scale, as it is still doing with current inventions that are totally or partially wrong.

Luigi Antonio Pezone