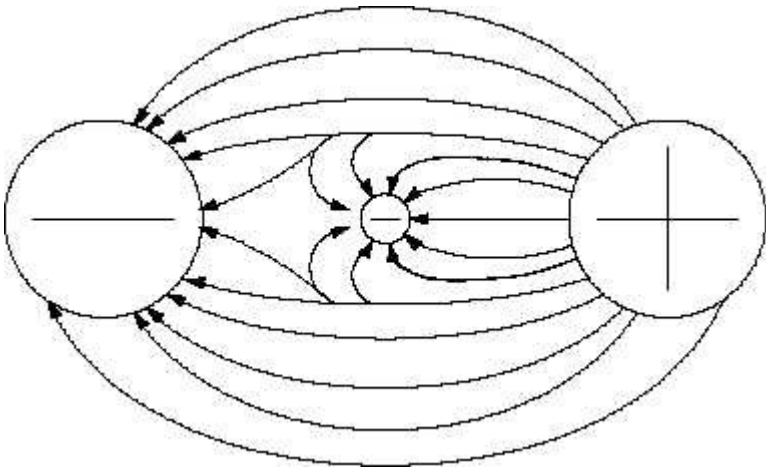
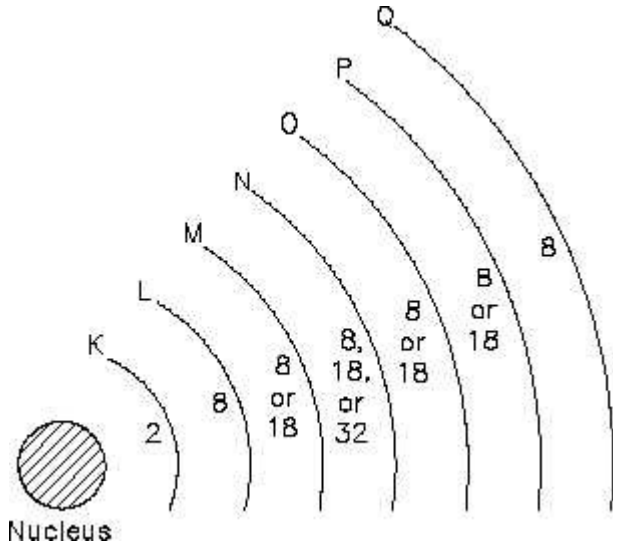


Basic Electrical Theory ATOM AND ITS FORCES The strength of the attraction or of the repulsion force depends upon two factors: (1) the amount of charge on each object, and (2) the distance between the objects. The greater the charge on the objects, the greater the electrostatic field. The greater the distance between the objects, the weaker the electrostatic field between them, and vice versa. This leads us to the law of electrostatic attraction, commonly referred to as Coulomb's Law of electrostatic charges, which states that the force of electrostatic attraction, or repulsion, is directly proportional to the product of the two charges and inversely proportional to the square of the distance between them as shown in Equation 1-1. (1-1) F K q1 q2 d2 where F = force of electrostatic attraction or prepulsion (Newtons) K = constant of proportionality (Coulomb2/N-m2) q1 = charge of first particle (Coulombs) q2 = charge of second particle (Coulombs) d = distance between two particles (Meters) If q1 and q2 are both either Figure 7 Potential Difference Between Two Charged Objects positively or negatively charged, the force is repulsive. If q1 and q2 are opposite polarity or charge, the force is attractive. Potential Difference Potential difference is the term used to describe how large the electrostatic force is between two charged objects. If a charged body is placed between two objects with a potential difference, the charged body will try to move in one direction, depending upon the polarity of the object. If an electron is placed between a negatively-charged body and a positively-charged body, the action due to the potential difference is to push the electron toward the positively-charged object. The electron, being negatively charged, will be repelled from the negatively-charged object and attracted by the positively-charged object, as shown in Figure 7.




ATOM AND ITS FORCES Basic Electrical Theory Due to the force of its electrostatic field, these electrical charges have the ability to do work by moving another charged particle by attraction and/or repulsion. This ability to do work is called "potential"; therefore, if one charge is different from another, there is a potential difference between them. The sum of the potential differences of all charged particles in the electrostatic field is referred to as electromotive force (EMF). The basic unit of measure of potential difference is the "volt." The symbol for potential difference is "V," indicating the ability to do the work of forcing electrons to move. Because the volt unit is used, potential difference is also called "voltage." The unit volt will be covered in greater detail in the next chapter. Free Electrons Electrons are in rapid motion around the nucleus. While the electrostatic force is trying to pull the nucleus and the electron together, the electron is in motion and trying to pull away. These two effects balance, keeping the electron in orbit. The electrons in an atom exist in different energy levels. The energy level of an electron is proportional to its distance from the nucleus. Higher energy level electrons exist in orbits, or shells, that are farther away from the nucleus. These shells nest inside one another and surround the nucleus. The nucleus is the center of all the shells. The shells are lettered beginning with the shell nearest the nucleus: K, L, M, N, O, P, and Q. Each shell has a maximum number of electrons it can hold. For example, the K shell will hold a maximum of two electrons and the L shell will hold a maximum of eight electrons. As shown in Figure 8, each shell has a specific number of electrons that it will hold for a particular atom. Figure 8 Energy Shells and Electron Quota

Basic Electrical Theory ATOM AND ITS FORCES There are two simple rules concerning electron shells that make it possible to predict the electron distribution of any element: 1. The maximum number of electrons that can fit in the outermost shell of any atom is eight. 2. The maximum number of electrons that can fit in the next-to-outermost shell of any atom is 18. An important point to remember is that when the outer shell of an atom contains eight electrons, the atom becomes very stable, or very resistant to changes in its structure. This also means that atoms with one or two electrons in their outer shell can lose electrons much more easily than atoms with full outer shells. The electrons in the outermost shell are called valence electrons. When external energy, such as heat, light, or electrical energy, is applied to certain materials, the electrons gain energy, become excited, and may move to a higher energy level. If enough energy is applied to the atom, some of the valence electrons will leave the atom. These electrons are called free electrons. It is the movement of free electrons that provides electric current in a metal conductor. An atom that has lost or gained one or more electrons is said to be ionized or to have an ion change. If the atom loses one or more electrons, it becomes positively charged and is referred to as a positive ion. If an atom gains one or more electrons, it becomes negatively charged and is referred to as a negative ion.

Flame observation of Water Fuel Cell and Cold Fog Generator Very Similar

Stans files suggest HV disassociation of fog produced by the fuel cell which splits much easier than the water bath. So I went back to check something I noted before with cold fog gen. I have also put the cold fog and WFC in the same unit and noticed they seem to cancel each other out when place in the same water bath together. I believe this is actually a electrical canceling effect similar to the a electrical winding canceling effect. I believe the similarities in the flame to also be very suspicious but supportive my theory on this topic. Will continue to build to test in the direction I have seen in Stans paperwork.
Please send me your thoughts or ideas.
Here's the web link with supportive docs.
http://waterfuel.100free.com/wf_meyer...

http://www.youtube.com/watch?v=togMTKLHOIg

H2O Steam and Mist Spray test
Just showing that steam & sprayed misted water do not have the same burn properties as the cold fog or the fuel cell water or vapors. Steam & mist did lower flame temp & even extinguished the torch quickly.
I think the fogger properties are very strange & need serious looking into.
http://www.youtube.com/watch?v=G48DW9p6p6E

Cold Fog Gen with Water Fuel Cell test
Start out showing cell running over top fountain mister turning mister on/off to demo changes taken place with cell. My thoughts to as why the cells production & bubbles changed has to do with the electrical waves cancel each other out or creates audio distortion.

2nd I'm showing flame traits again notice the torch flame grow longer at times when placed down into fogger

3rd showing red laser and UV laser.
I'm using them to deflect liberated electrons, increase the energy level of H2O by raising fog temp since water acts like a magnifying glass and absorbs all spectrums of light except UV.
http://www.youtube.com/watch?v=gOLBQpv9198

http://www.youtube.com/watch?v=K4nSIOdKyKA

Observed the properties of the water beginning to shift into the flammable state. This is due to particle oscillation the water is being subjected to by the ultrasonic unit. Water acts as catalyst at this stage.

Ultrasonic power supply (generator) converts DC voltage to high
frequency 25 kHz (25,000 cylces per second) electrical energy. This electrical energy is transmitted to the transducer within the handpiece, where it is changed to mechanical vibrations. The vibrations from the transducer are intensified by the probe (horn), creating pressure waves in the liquid. This action forms millions of microscopic bubbles (cavities) which expand during the negative pressure excursion, and implode violently during the positive excursion. It is this phenomenon, referred to as cavitation, which produces the powerful shearing action at the probe tip, and causes the molecules in the liquid to become intensely agitated.

FREQUENCY AND AMPLITUDE
The radiating-wave frequencies most commonly used in ultrasonic cleaning, 18-120 kHz, lie just above the audible frequency range. In any sonic system,the harmonics of the fundamental frequency, together with vibrations originating at the container walls and liquid surface, produce audible sound. Thus, an operating system that is fundamentally ultrasonic will nonetheless by audible, and low frequency (20-kHz) systems will generally be noisier than higher-frequency (40-kHz) systems.
Moreover, ultrasonic intensity is an integral function of the frequency and amplitude of a radiating wave; therefore, a 20-kHz radiating wave will be approximately twice the intensity of a 40-kHz wave for any given average power output, and consequently the cavitation intensity resulting from a 20-kHz wave will be proportionately greater than that resulting from a 40-kHz wave.
The cavitation phenomenon will, of course, occur less frequently at 20 kHz, but this is not thought to have a significant bearing on effectiveness. However, the longer wavelengths of low-frequency ultrasonic systems result in substantially different

standing-wave patters throughout the liquid medium.
The standing or stationary waves produced by ultrasonics in liquid media result from the simultaneous transmission of the surface-reflected wave motion and the wave motion originating at the transducer radiating surface. The fixed points of minimum amplitude are called nodes, and the points of maximum amplitude are called loops. The distance between the nodes and loops of the 20-kHz standing wave (2 in.) will be approximately twice that of the 40-kHz wave. Because cavitation takes place primarily at the loops, the distance between cavitation sites will thus be larger with 20-kHz than with 40-kHz radiation, and the 20-kHz waves will also have larger dead zones (i.e., zones with little or no cavitation activity).
It is for this reason that work resulting from 20-kHz radiation is likely to be less homogeneous and less consistent, even though this frequency produces more intense cavitation. Much of the inhomogeneity in ultrasonic fields can, however, be reduced or wholly eliminated through the use of sweep frequencies, or radiating waves with a multitude of different frequencies. By this means, several overlapping standing waves can be generated at the same time, thereby eliminating much of the dead zone.

The amplitude of the radiating wave is directly proportional to the electrical energy that is applied to the transducer. In order for cavitation to be produced in a liquid medium, the amplitude of the radiating wave must have a certain minimum value, which is usually rated in terms of electrical input power to the transducer. No cavitation can occur below this threshold value, and the use of electrical power over and above the minimum level results not in more intense cavitation activity but rather in an increase in the overall quantity of cavitation bubbles. The minimum power requirement for the production of cavitation varies greatly with the colligative properties and temperature of the liquid and with the nature and concentration of dissolved substances.
CAVITATION
If a sound wave is impressed upon a liquid and the intensity is increased, a point will be reached where cavitation occurs. Cavitation is the formation of a gas bubble in the liquid during the rarefaction cycle. When the compression cycle occurs the gas bubble collapses. During the collapse tremendous pressures are produced. The pressure may be of the order of several thousand atmospheres. Thousands of these small bubbles are formed in a small volume of the liquid. It is quite generally agreed that it is cavitation that produces most of the biological, detergent, mechanical, and chemical effects in the application of high intensity sound to various mediums.
The intensity with which cavitation takes place in a liquid medium varies greatly with the colligative properties of that medium, which include vapor pressure, surface tension, viscosity, and density, as well as any other property that is related to the number of atoms, ions, or molecules in the medium. In ultrasonic cleaning applications, the surface tension and the vapor pressure characteristics of the cleaning fluid play the most significant roles in determining cavitation intensity and, hence, cleaning effectiveness. The energy required to form a cavitation bubble in a liquid is proportional to both surface tension and vapor pressure. Thus, the higher the surface tension of a liquid, the greater will be the energy that is required to produce a cavitation bubble, and, consequently, the greater will be the shock-wave energy that is produced when the bubble collapses. In pure water, for example, whose surface tension is about 72 dyne/cm, cavitation is produced only with great difficulty at ambient temperatures. It is, however, produced with facility when a surface-active agent is added to the liquid, thus reducing the surface tension to about 30 dyne/cm. In the same manner, when the

vapor pressure of a liquid is low, as is the case with cold water, cavitation is difficult to produce but becomes less and less so as temperature is increased. Every liquid, in fact, has a characteristic/temperature relationship in which cavitation exhibits maximum activity within a fairly narrow temperature range.

THERMAL EFFECTS OF ULTRASONICS

There is considerable temperature rise in the ultrasonic field in a liquid. A rise of several degrees per minute can be obtained. The generation in heat is due to dissipation of the sound by absorption in the liquid. The generation of head by the action of ultrasonics obscures the effects which can be attributed to sound alone because many chemical and biological phenomena observed when ultrasonics are applied are also obtained by the application of heat. The practical value of heating by ultrasonics remains to be seen.

S team Resonator

Particle Oscillation As An Energy Generator

All energy in our physical universe (The third dimension) comes from a singular source ... the atom. There are four basic forces that make up and effect the atomic structure: electrical force, electromagnetic force,
weak and strong nuclear forces, and gravity. By either attenuating either one or more of these atomic forces,
energy can be release from the atom to perform work in a variety of ways: such as, emitting photon, electromagnetic, or even radiant heat energy; Exposing the water molecule atom (s) to an external electrical
attraction force (SS '/RR') separately or combining the external electrical attraction force with an external
electrical repelling force (SS'-TT'/RR'-WW') can cause the bipolar electrical charged water molecule atom (s)
to release thermal heat energy when physical impact (physical force) is achieved as a result of particle (s)
colliding together under electrical stress which becomes and is the physical mover ... causing electron bounce
to oscillate the energy aperture of each atom of the water molecule.

Voltage Flexing Process

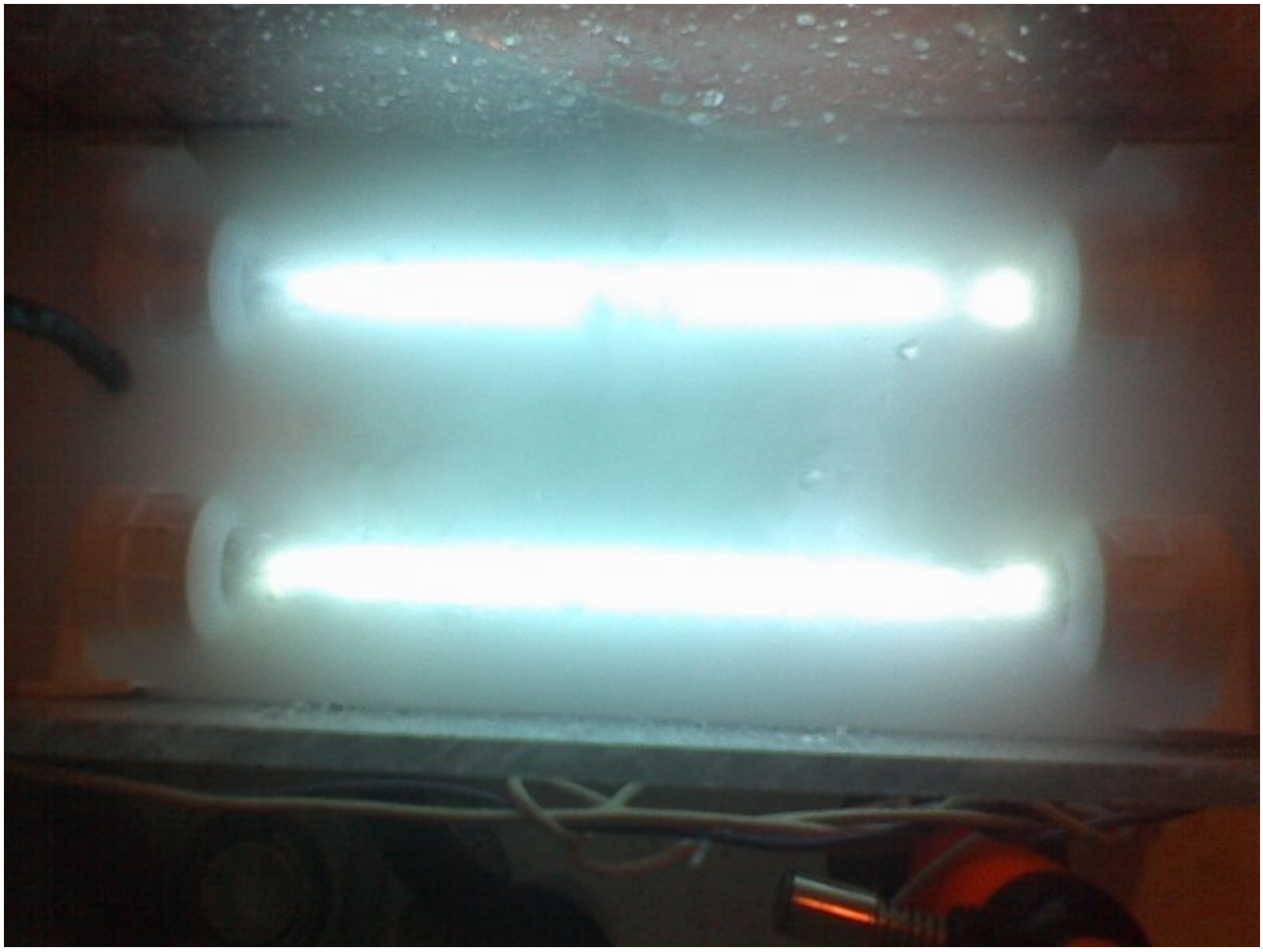
Particle oscillation as a "Energy Generator" by way of "physical impact" caused by a singular unipolar voltage pulse wave-form alternately polarity triggered is yet another method beyond the prior art to flex the water molecule to release thermal energy (Kinetic Energy) from the water molecule atom (s) without the need of gas combustion brought about by gas separation from water, as so illustrated in (1050) of Figure (11-5).

This continued and repeated oscillation of the bipolar water molecule (1004/1006) in opposite direction of linear travel (back and forth motion) produces kinetic energy (165) when the moving and deflected bipolar water molecule (1004/1006) or any other bipolar molecule of water interlocking with ever changing electrical attraction forces (S-S' /R-R') collides with neighboring water molecules present in the same water bath (68).

Not only does the alternate first gated voltage pulse (B+/O - B-/O) and then the second

gated voltage pulse (OIB+ - OIB-) oscillates the bipolar water molecule (s) back and forth in rapid succession to produce heated water at a predetermined temperature level on demand; but, also, deflects the oscillating bipolar water molecule in an upward direction since the reforming voltage pulse waves are always in a state of progressive movement of linear displacement ... performing the same function as a water pump ... a water pump, however, not having any mechanical moving parts to wear out.

Dissociation of the water molecule by way of voltage stimulation is herein called "'The Electrical Polarization Process".
,Subjecting or exposing the water molecule to even higher voltage levels causes the liberated atoms to go into a "state" of gas ionization. Each liberated atom taking-on its own "net" electrical charge. The ionized atoms along with free floating negative charged electrons are, now, deflected (pulsing electrical voltage fields of opposite polarity) through the Electrical Polarization Process ...imparting or superimposing a second physical-force (particle-impact) unto the electrically charged water bath.
Oscillation (back and forth movement) of electrically charged particles by way of voltage deflection is hereinafter called "Resonant Action", as illustrated in Figure (1-10).
Attenuating and adjusting the "pulse-voltage-amplitude" with respect to the "pulse voltage frequency", now, produces hydrogen gas on demand while restricting amp flow.
Stanley A. Meyer



Excellent Electrical Reference Site
www.play-hookey.com

Also the secret to more then just the fuel cell seems to be in reactive power.
This is a quote from one of my dads engineering books.

"Side BC of triangle is equal to EI sin 0 and is lagging the voltage by 90 degrees.
This power is generally referred to as reactive power, reactive power component or reactive load. In practical power applications this component should be made as small as possible, because while doing no useful work it causes additional heating of windings and conductors through which it circulates."

Maybe this is Stan's True secret of the LC Series Circuit?

Example
If we measure the ac voltages across L and C, we find vL = 43v and vC = 33v. Yet our source voltage is still just 10v. What's going on here? How can we get 76v across two components in series across a 10v source?

The Vectors
The vectors in a series LC circuit.

The answer is clear when we look at the voltage vectors in this circuit. They are shown to the right.

Since this is a series circuit, the current is the same throughout the circuit. With no circuit resistance, there is no resistive voltage, so we simply show the current vector in red, at the reference phase angle of 0°.

We know that voltage leads current in an inductance, so we show vL at a phase angle of +90°. We also know that voltage lags current in a capacitance, so we show vC at -90°. And this gives us our first clue as to what is happening in this circuit and how we can get both vL and vC to be higher than the source voltage: they oppose each other, and at least partially cancel each other out. It is the difference between these two voltages that must match the source voltage, and sure enough, 43v - 33v = 10v.

RE: Hydrogen Fracturing Process Memo WFC 420

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Stanley A. Meyer 1 - 3
LC Voltage
The voltage across the inductor (C) or capacitor (ER) is greater than the applied voltage (H). At frequency close to resonance, the voltage across the individual components is higher than the applied voltage (H), and, at resonant frequency, the voltage VT across both the inductor and the c:apacitor are theoretically infinite. However, physical constraints of components and circuit interaction prevents the voltage from reaching infinity.