(Under Construction)

The Water Molecule

Let's have a closer look at the water molecule.

A water molecule consists of two atoms of hydrogen and one atom of oxygen. Atoms consist of electrons, protons, and even smaller particles. The protons are grouped at the center of the atom in the nucleus, while the electrons orbit around the nucleus of the atom.

Electrons carry a negative charge. Protons carry a positive charge. Electrically stable atoms always have the same amount of electrons and protons. When the number of electrons and protons is not the same, the atom is electrically charged. This is called an ion.

The hydrogen atom has 1 proton and 1 electron.



The oxygen atom has 8 protons and 8 electrons



When two hydrogen atoms bond chemically with an oxygen atom, a water molecule is formed.



When oxygen and hydrogen combine to make water, a covalent bond is formed between the atoms. In a covalent bond, the atoms to form a molecule with shared electrons. In a water molecule the electrons are shared unequally. There are more electrons occupying the space around the oxygen atom than the hydrogen atom. The oxygen end of the molecule has a net negative charge, while the hydrogen end has a net positive charge. Because of the unequal sharing of electrons opposite charges are produced. The unequal electrostatic forces bond atoms of the water molecule chemically.

The unequal sharing of electrons produces a positive and negative side to the water molecule. This is referred to as a polar or dipole.



more on the water molecule

links

Water Molecule site 1

Water Molecule site 2

<u>Water Molecule site 3</u> (A good Interactive site but based on microwaves)

Water Molecule site 4

Water Molecule site 5

Oxygen gas molecule



Hydrogen Gas molecule



Understanding Voltage

There are three known different forces/fields. They are gravity, magnetism, and **voltage.**

Voltage is basically the difference of electrons in two different locations. The greater the difference in the number of electrons in one location compared to the second location, the higher the voltage.

When you put the water molecule in a voltage field it will move itself to the appropriate positive and negative voltage fields. This happens because water is a dipole molecule with a positive and negative ends.

opposites attract ! see below



Websites that explain voltage

Some Basics site

Voltage Site 1

Voltage Site 2

<u>Voltage Site 3 and the Water Molecule</u> (A good Interactive site but based on microwaves)

Electrolysis vs. The Water Fuel Cell

Electrolysis separates water into hydrogen and oxygen. This process is done by constantly introducing electrons into the water solution.

Here is a link to information that best describes the process

The water fuel cell uses a different process from electrolysis. In the fuel cell electrons are restricted, the water molecule undergoes a lot more stress, and an added sequence of events produce a much higher energy efficiency than electrolysis.

Stanley Meyer's Discovery

This is my understanding at present and is subject to change, although some WFC experimenters have also agreed with me on some of the things I am presenting.

Stanley Meyer found a way to use Voltage (electrostatic force) so that hydrogen and oxygen could be released on demand, serve our energy needs, and be sustained with very minimal power requirements

My simplified explanation of the material explains this process.

Stanley Meyer Identified two stages of gas production these are

- Electrical Polarization process (Minimal Gas Yield)
- Resonant gas production (High Gas Yield)

Electrical Polarization process

Electrostatic force chemically bonds the atoms of the water molecule. Stanley knew that if you raised voltage to a certain level electrons could be stripped of the water molecule. During this process the bonding force between the atomic structures of water is weakened.

For this to happen a few unconventional approaches had to be devised.



The Hydrogen Fracturing Process (Technical Brief) Book extract pg 1-16



FIGURE 1-9: ELECTRICAL POLARIZATION PROCESS

The strong voltage force was used to strip electrons to weaken the electrostatic force that holds the water molecule together.

This is only possible because electron flow was inhibited.

Restricting electron flow and using pulses gave Stanley the following advantages over electrolysis:

- The gap between the electrodes could be kept to a minimum (around 1mm). This was achieved because arcing could not occur with restricted electron flow.
- keeps voltage high across the electrodes and prevents it from dropping to nothing.

Imagine the force of having this high voltage field with electron flow restricted. The water molecule would be pretty stressed out!

Maybe another way to visualize what I am saying Is imagine a magnetic force, as the magnet gets closer and closer it increases in strength. If the water molecule was effected by a magnetic force it would be ripped apart but the water molecule is not. (so it is useless using a magnetic force)

The Water molecule only reacts to a voltage/electrostatic force. That is why Stanley Meyer needed to restrict electron flow, if you bring a high voltage field closer and closer together, it will get to a point when it will arc (we don't want this!!!!). when it arcs electron flow has occurred and all that attracting force is lost. Relating this to the example above, it would be if the magnetic force was turned off.

A Point to Ponder: How can there be an arc, if there are no electrons to leak?

We still may need a little electron flow. That is why we need to experiment.

Electrical Polarization Process (Minimal Gas Yield)

The Hydrogen Fracturing Process (Technical Brief) Book extract pg 3-14

Electrical Polarization process

Placement of a pulse voltage potential (65) across Excitor plates (*El*!*E2*) (voltage zones 66/67) of Figure (3-29) as to Figure (3-26) while inhibiting and preventing electron flow within voltage intensifier circuit (190) of Figure (3-23) causes water molecule (210) of Figure (3-27) to separate into its component parts (released hydrogen and oxygen gases) by pulling away (utilizing

opposite attraction forces SS' and RR') its charged water molecule atoms (76n7), as illustrated in (160) of Figure (3-26).

Stationary "positive" electrical voltage-field (66) (voltage plate El) not only attracts negative charged oxygen atom (76) but also pulls away negative charged covalent electrons (84) from water molecule (210). At the same time stationary "negative" electrical voltage field (67) (voltage plate E2) attracts positive charged hydrogen atoms (77a/b). Once negative electrically charged oxygen atom (76) is dislodged from water molecule (85), covalent bonding (sharing electrons between atoms) ceases to exist, switching-off and disrupting electrical attraction force (qq') between unlike atoms (76/77), as further illustrated in (160) of Figure (3-26).

Opposite polarity electrical attraction force (*SS'*) continues to cause negative charged oxygen atom (76) to migrate to positive voltage-plate (E1) (positive voltage zone 66); while, at the same time, opposite polarity electrical attraction force (RR') causes positive charged hydrogen atoms (77a/b) to migrate in the opposite direction to negative voltage-plate (E2) (negative voltage zone 67) as step-charging voltage-wave (65) increases in voltage amplitude from several millivolts to several hundred volts during each pulse train (65a xxx 65n) which, in application, causes water molecule (210) of Figure (3-27) charged atoms (76/77) to elongate (increasing distance between unlike atoms 76/77) to the point where covalent hydrogen electrons (84) of Figure (3-27) breaks away from electrostatic force (qq'). Repetitive duplication of voltage pulse (65a xxx 65n) continues to separate or split apart other water molecules (85a xxx 85n) which, in turns, forms hydrogen (86) and oxygen (87) gas-mixture (88) of Figure (3-24). Dissociation of water molecule (85) by way of voltage stimulation (65) is herein called "The Electrical Polarization Process", as illustrated in (160) of Figure (3-26).

The Hydrogen Fracturing Process (Technical Brief) Book extract pg 1-7

Voltage Dissociation of The Water Molecule

Placement of a pulse-voltage potential across the Excitor-Array (ER) while inhibiting or preventing electron flow from within the Voltage Intensifier Circuit (AA) causes the water molecule to separate into its component parts by, momentarily, pulling away orbital electrons from the water molecule, as illustrated in Figure (1-9).

The stationary "positive" electrical voltage-field (EI) not only attracts the negative charged oxygen atom but also pulls away negative charged electrons from the water molecule. At the same time, the stationary "negative" electrical voltage field (E2) attracts the positive charged hydrogen atoms. Once the negative electrically charged electrons are dislodged from the water molecule, covalent bonding (sharing electrons) ceases to exist, switching-off or disrupting the electrical attraction force (qq') between the water molecule atoms.

The liberated and moving atoms (having missing electrons) regain or capture the free floating electrons once applied voltage is switched-off during pulsing operations. The liberated and electrically stabilized atom having a net electrical charge of "zero" exit the water bath for hydrogen gas utilization.

Dissociation of the water molecule by way of voltage stimulation is herein called 'The Electrical Polarization Process".

My Diagrams

The step charging waveform below is discussed in further sections of my site, so don't worry about how it is produced at the moment. The waveform shows the effect on the water molecule when voltage increases in a progressive manner.





First Pulse













Third Pulse



Method Of Production of fuel gas patent 4,936,961



Resonant Action (High Gas Yield)

The Hydrogen Fracturing Process (Technical Brief) Book extract pg 3-15

Resonant Action

Subjecting and exposing water molecule (85) to even higher voltage levels (xxx Vn) (up to and beyond several thousand volts) causes water bath (91) of Figure (3-30) as to Figure (3-25) to go into a state of ionization by allowing opposite polarity forces (TT') and (UU') to eject one or

more electrons (92a xxx 92n) from water bath atoms (93). Intensified electrical attraction force (TT') causes dislodged negative charged electrons (92) to migrate to positive voltage-plate (El) while electrical attraction force (UU') causes positive charged atom nucleus (94) to travel toward negative voltage-plate (E2). Applied electrical attraction force (TT') and (UU') always being of equal voltage intensity but opposite in electrical polarity as voltage amplitude (65) is attenuated.

Replication of higher voltage forces (TT') and (UU') during pulsing operations causes a continued release of other electrons (92a xxx 92n) from other water bath atoms (93a xxx 93n) which, in practice, increases electrical charges of water bath (91) since water bath (91) is a dielectric liquid. Water bath atoms (93a xxx 93n) having missing electrons (92) take-on a positive electrical charged (95) which is subject to and moved by negative electrical force (UU'); whereby, the liberated and free floating negative charge electrons (92) are subject to and move by positive electrical force (TT'). Applied together, electrical forces (TT') and (UU'), now, causes these moving electrically charged particles to superimpose a physical impact unto electrical polarization process (160), as shown in (170) of Figure (3-25) ... thereby, increasing gas-yield (88) still further.

By attenuating voltage amplitude (V0 xxx Yn) in conjunction with pulse-width (65a xxx 65n) allows voltage intensifier circuit (190) of Figure (3-23) to tune-in and match the resonant characteristics or resonant frequency of water bath (91) since water bath (91) always maintains its dielectric properties during pulsing operations. At resonance, electrical polarization process (160) interacts uniformly with liberated charged particles (92/95) of Figure (3-25) to obtain a even higher gas-yield (88) at maximum voltage deflection (xxx Vn). The established resonant frequency is most generally in the audio range from 1 Khz up to and beyond 10 KIlz; and is dependent upon the amount of contaminants in natural water. Oscillating and superimposing electrical charged particles unto the Electrical Polarization process at a given pulse-frequency is, now, herein called "Resonant Action", as illustrated in (240) of Figure (3-25).

The Hydrogen Fracturing Process (Technical Brief) Book extract pg 3-15 - 3-16

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.



My Drawing Describing Resonant Action

The main thing to note from this pulsed step charging is that it ionizers the hydrogen and oxygen atom (positive). This causes particle impact that will happen at a constant rate and can

be increased with voltage amplitude or adjustment to frequency. This effect of ionization and particle impact now exerts another effect separate to the polarization gas production, This effect is Resonant action gas production, It is possible Stanley Meyer says to increase gas yield to equal the flow rate of water entering the cell !!!!!!

I based the above drawing on the information from the text extract above (technical brief) and also from the DVD's I have in for available <u>here</u>

Note:-

Resonate gas production during the pulse off period is actually sustained for a certain period of time.

Pulse Off Time

The Hydrogen Fracturing Process (Technical Brief) Book extract pg 5-8 - 5-9



FIG. 5-4A: TRIGGERING RESONANCE

FIG. 5-4B: SUSTAINING RESONANCE



FIGURE 5-4C: RESONANT PROPAGATION

the voltage levels in the waveform below show the two stages we are interested in. these are...

- Electrical Polarization Process
- Gas Ionization Stage (Resonant Action)

Don't worry about the other points in the waveform, there for Stans water fuel injector we will discuss that in a another section. The graph just shows you that raising voltage and adjusting the pulse frequency will bring on resonate gas production. We don't need to get as high as 64n that would be used for his advanced version called the Water Injector System. Lets just get some gas on demand before we worry about that!!!



FIGURE 6-3: DYNAMIC VOLTAGE POTENTIAL

To further your understanding of the technology I suggest you study this information.

- Hydrogen Fracturing Process Book
- Gas generator voltage control circuit
- <u>Method for the production of a fuel gas</u>

• <u>Video footage The Water Fuel Cell DVDs</u>

Production of Hydrogen and oxygen on demand happens using the powerful force of voltage, with restricting electron flow.

We will look into how to tune into both the Electrical Polarization process and Resonant gas production in further sections of this website.

My goal is to explain in the most basic terms possible the effects of the water fuel cell. The patents and other information can be obtained in the <u>resources</u> section. This section provides more detail and might answer most of the other questions you may have.

Some specifics are lacking in the patents, but the idea just needs experimenting, good trial and error procedure, and logical thinking.

I will continue my research, but this is a huge project. I propose a group effort.

Note: I have made an effort to back up these claims with reference material and links. Materials presented here are my understandings at present and are subject to change. Experimenters in this area have agreed with me about resistance being the key!

I would really appreciate if you could <u>contact me</u> concerning any positive or negative feedback on this topic. There may be flaws in my logic. Please try to give me a reference or other factual evidence to back up your thoughts.

please read other sections of this website such as

- Gas Voltage Control Circuit
- Voltage Intensifier circuit

This will give you a clearer path to follow when experimenting

Thank you,

Murray