



Introduction to:

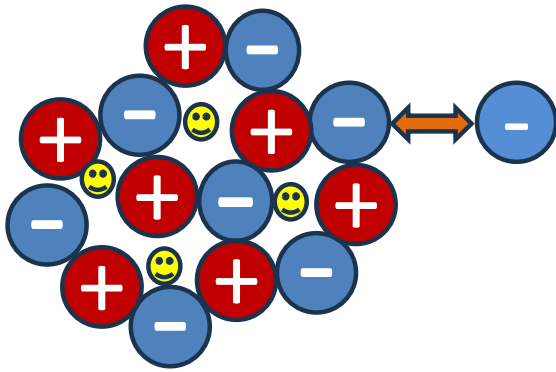
ELECTROLYZING WATER

Featuring AET – Advanced Energy Transfer

Palm Beach Springs Water Company Inc.

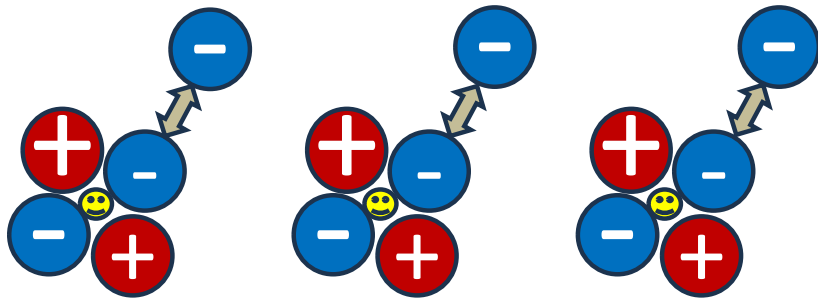
Powered by Advanced High Amp Dual Polarity Electrochemistry

Presented by: Paul E. Seaver



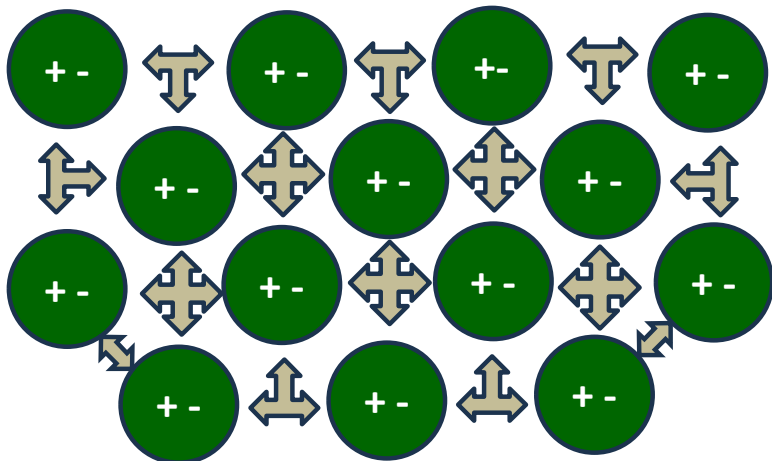
Raw Source Water

Typical water at ambient temperature 15 molecule
 unbalanced cluster controlled by self ionization –
 also illustrates how water borne pathogens 🤪
 hibernate with in the spaces of clusters
 1 molecule available for uptake



Low Amp Single Polarity – *(neutral example)*

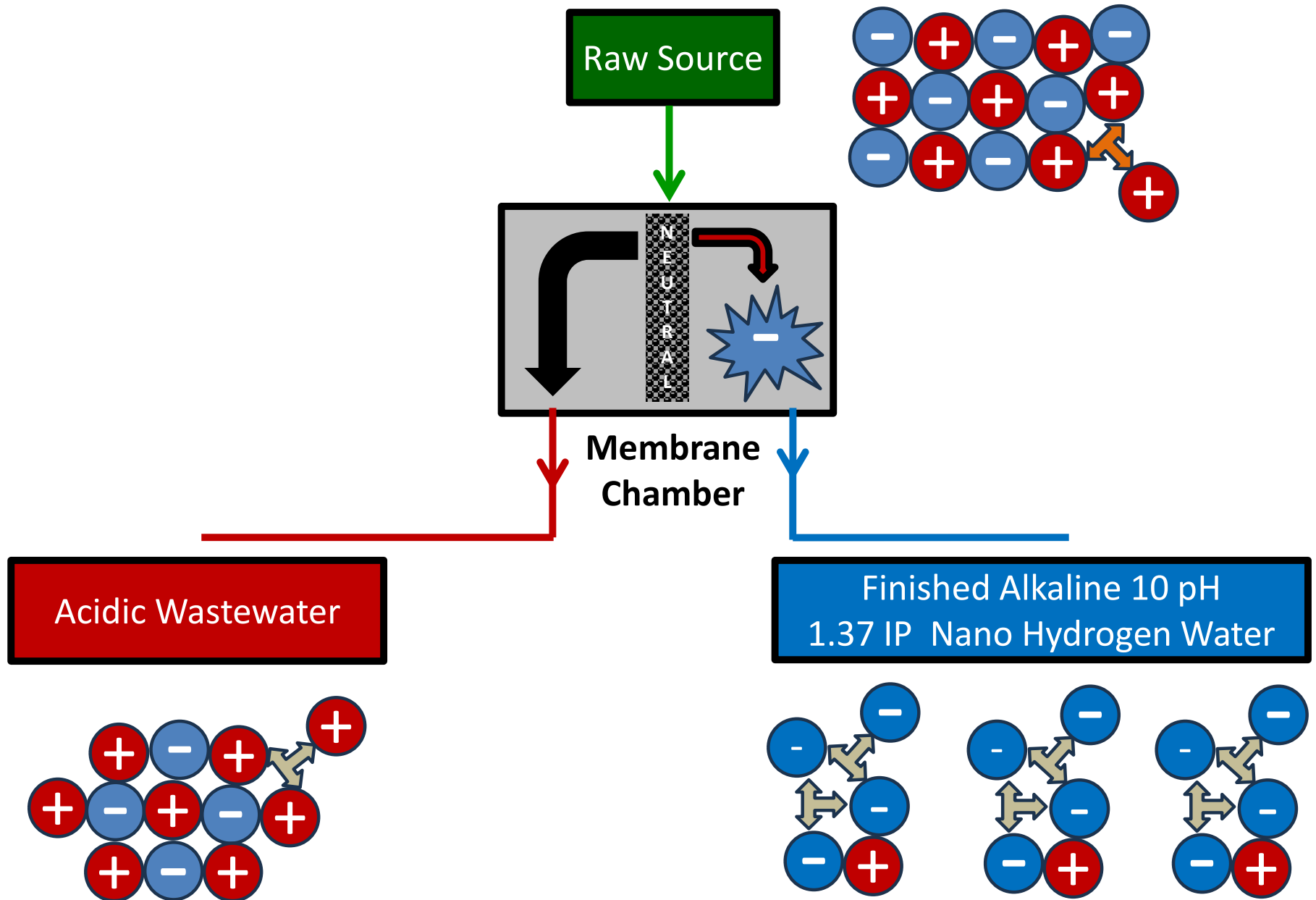
Typical water at ambient temperature Reduced
 Nano Clusters – *slightly alkaline shown*
 5 molecule unbalanced cluster
 Increased molecules available for uptake



High Amp Dual Polarity

Typical water at ambient temperature Reduced
 6.45 Ionic Product
 Balanced dual polarity ions
 Cluster FREE
 All molecules available for uptake

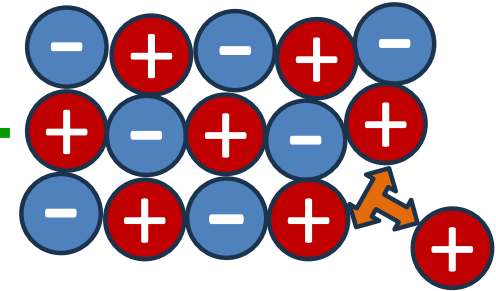
Single Polarity Membrane 1in/1out with wastewater




ELECTROLYZING WATER in Dual Polarity

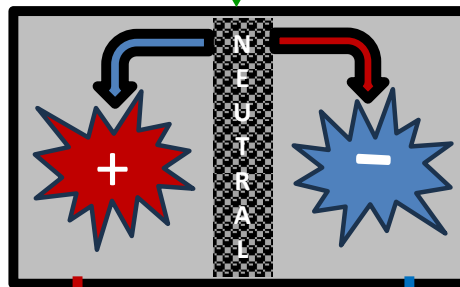
Typical raw ambient water less than 1 IP
15 mixed molecule cluster slightly acidic


 Self ionization separation / dissociation



Raw Source

 Anions are naturally negatively charged; therefore, they are attracted to the strong positive charge at the anode, these may include but are not limited to:
chloride – sulfate – bicarbonate – carbonate – nitrate & phosphate



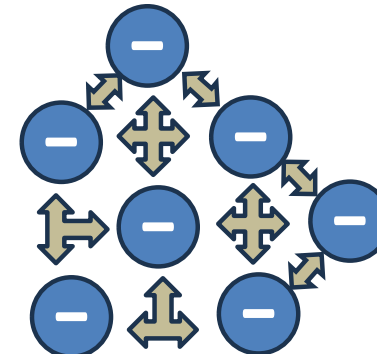
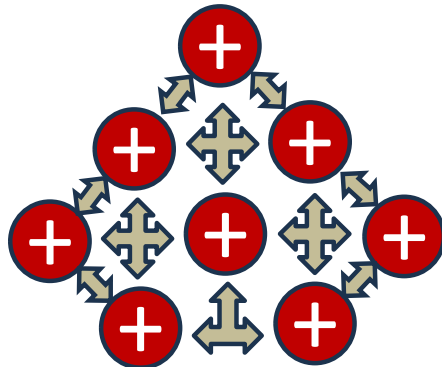
 Cations are naturally positively charged; therefore, they are attracted to the strong negative charge at the cathode, these may include but are not limited to:
sodium – calcium – magnesium – potassium & ammonium

Membrane Chamber

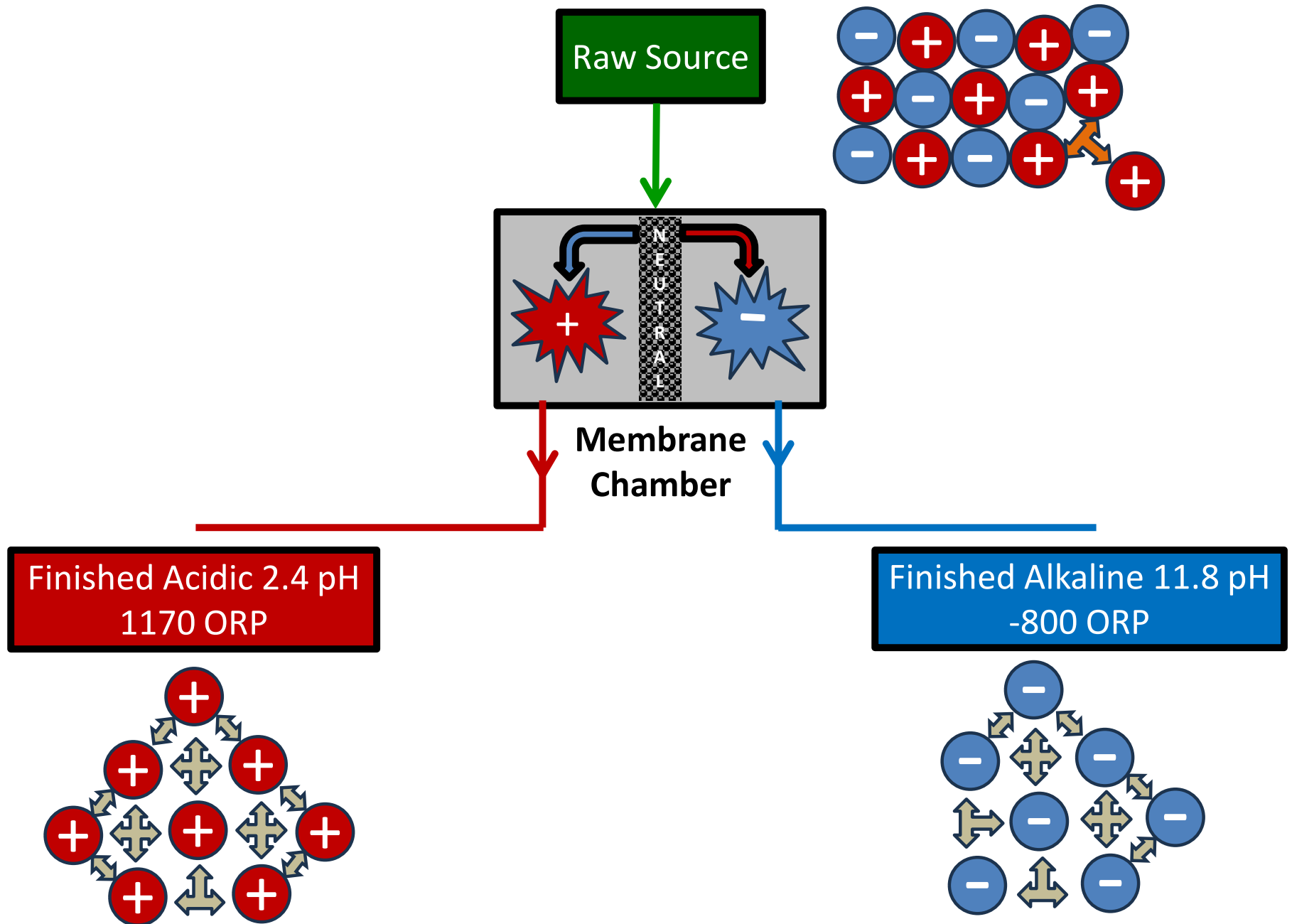
Finished Acidic 6.45 IP
2.4 pH 1170 ORP

Finished Alkaline 6.4 IP
11.8 pH -800 ORP

 Ionic Product separation

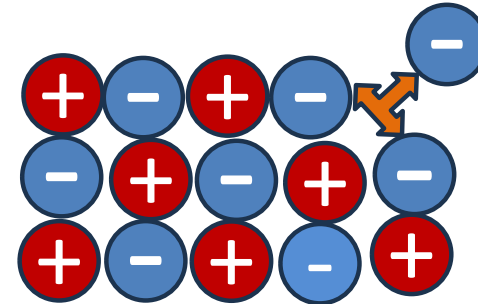


Dual Polarity Neutral Membrane 1in/2out

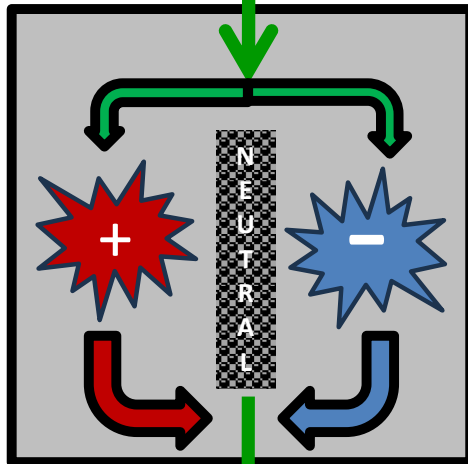


Dual Polarity Neutral 1in/1out Consumption Example

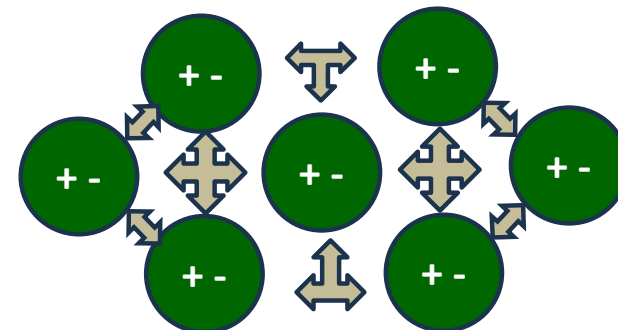
Raw Source 7.4 pH
Less than 1 IP -8/+7



Open Loop
Chamber

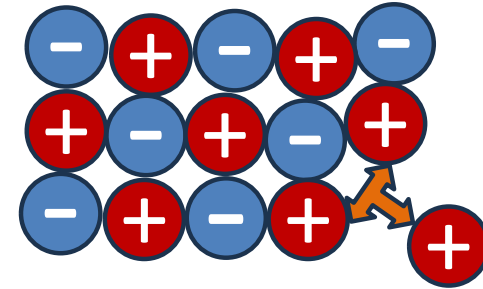


Finished Neutral Ion 7.4pH
6.45 IP single bonded -1/1 pKw
Negative dominant

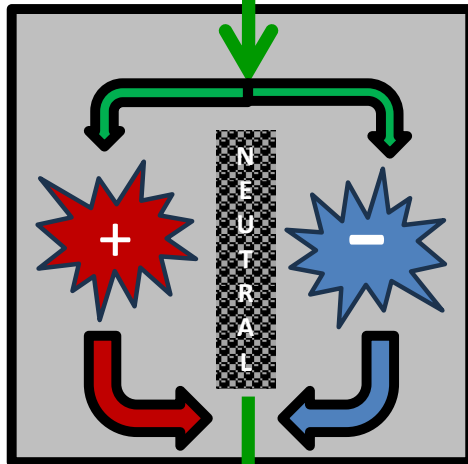


Dual Polarity Neutral 1in/1out Hydrothermal Example

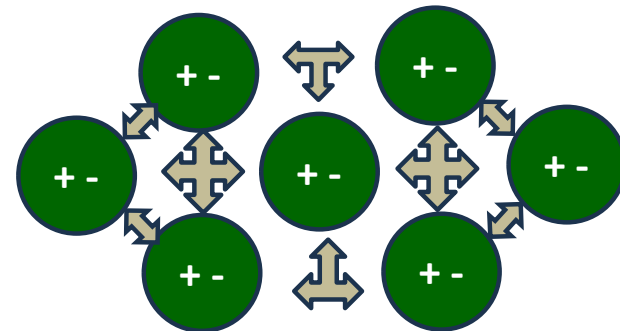
Raw Source 6.8 pH
Less than 1 IP +8/-7



Open Loop
Chamber

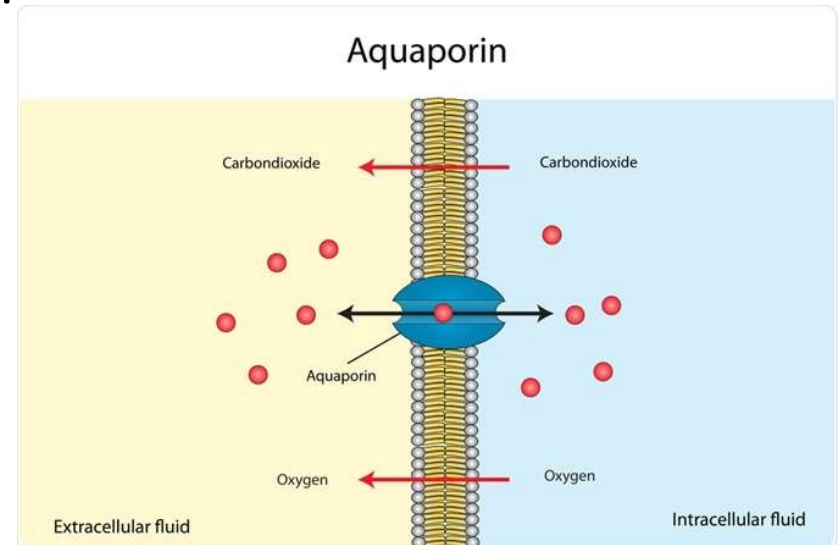
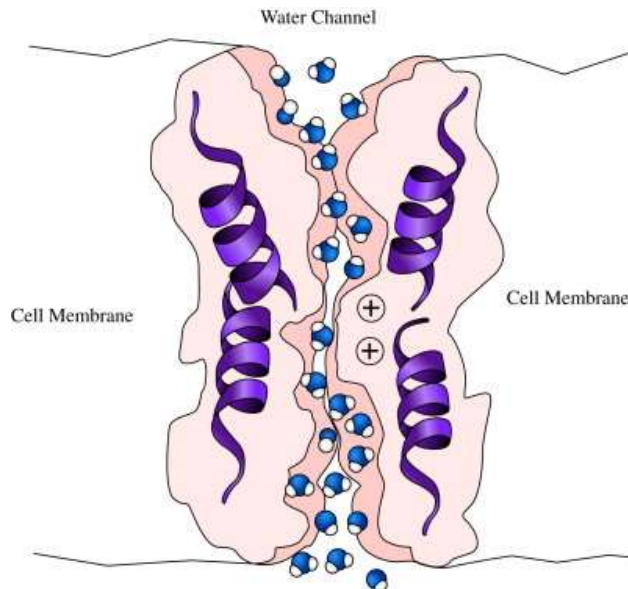


Finished Neutral Ion 6.8 pH
6.45 IP single bonded -1/1 pKw
Positive dominant



Absorption

This is a simplified introduction to what absorption is. We all hear the word, and we use the word although few understand what this really means and how it works. Spoiler, it has nothing to do with what you hear in corporate marketing campaigns to sell you products.



Aquaporins (AQP) are integral membrane proteins that serve as channels in the transfer of water, and in some cases, small solutes across the membrane. They are conserved in bacteria, plants, and animals. Structural analyses of the molecules have revealed the presence of a pore in the center of each aquaporin molecule

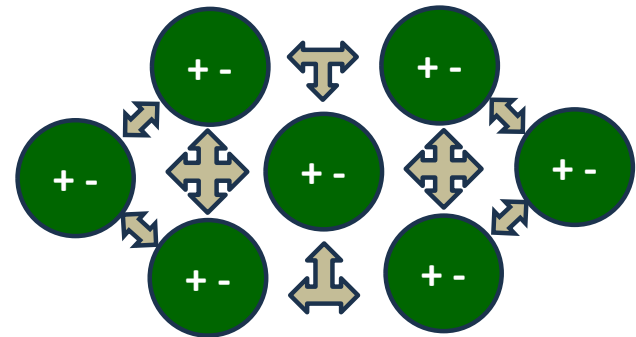
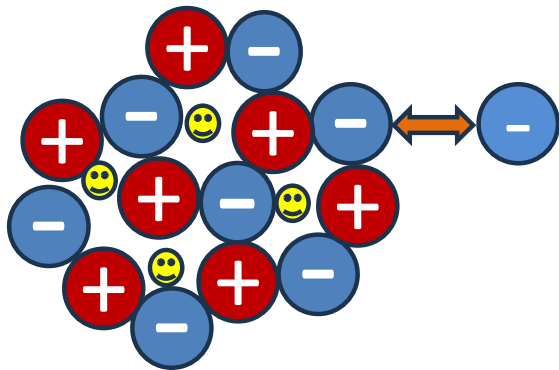
Directly to the point, we absorb through our aquaporins. These are channels that allow things to pass the membrane of a cell without damaging it. These are very small channels and only allow a single molecule of water to pass through. The objective of all nutrients, pharmaceuticals and even pesticides is to dissolve into the water molecule to pass the membrane and enter the intercellular environment.

The subject of aquaporins when it comes to humans is very complicated and again, I am just making a simple understanding of how they work when it comes to water intake and the aid water plays in delivery.

The rule is very simple, the molecule must be a single molecule of H₂O. This molecule can and will contain some sort of dissolved component. All cells are unique and have different requirements as to what role they play overall. In this context we are simply talking about hydration and delivery, little to do with the functions after.

To use H₂O to its fullest potential in this context and every context other than Ice, you must eliminate clustering and release all to single molecule as illustrated below in dual single neutral ion.

+8/-7 cluster (*7-/7 pKw not possible*) to create stable balanced (*7x bonded*) 1-/1 pKw



CAUTIONS

when electrolyzing water for consumption

Electrolyzing water for consumption has been around for a very long time with the single polarity alkaline ionizers availability. Most marketing companies are more concerned with sales over education. When these devices 1st appeared very little concern was taken over water quality over all in any industry. The subject of the hidden dangerous contents of water rarely discussed. Today that has changed with all the information available on the dangers of raw water sources. Let's be absolutely clear, in 2024 there are no clean pure water sources available anywhere including the sky.

The simple definition of electrolyzing water is to increase the potential of the contents effected. This means to make them more powerful. If you have bad stuff in the water, this is what it will do to that content as well. In this day and time, if you are electrolyzing water for consumption you need to have proper coconut carbon block filtration as a minimum. The best filtration systems have pre coconut carbon block, CSM Reverse Osmosis, pH neutralization, individual unit type specific filtration, and finishing with coconut carbon block.

If you are not doing this you should not be consuming it, says me – Paul E. Seaver

When Consuming Electrolyzed Waters

The consumption of electrolyzed waters is no joke it is serious stuff especially depending on the individual's health conditions.

There are so many alkaline ionizers on the market imported from anywhere one can be manufactured and for so long that they have become a gimmick with little regard for safety and health concerns.

I get questions all the time from individuals who have had experiences with ionizers, understand the benefits of electrochemistry and are looking for the “real deal” everything else is based on. They soon realize their journey is over, they found it.

Generally individuals purchase units based on the marketing they read. It sounds fantastic of course, its all marketing. Now comes what they do not tell you as if they did you would not buy their unit.

There is a lot of misleading information out there to sort through. The 1st thing in my opinion is forget everything you think you have learned, most is more than likely a play on the facts anyway. Keeping in the context of consumption and delivery, learn more about what is required for consumption and delivery, such as the introduction in the beginning of this presentation. When you understand what is require for the function you desire, you can separate the good information from the marketing mumbo jumbo more easily.

In my opinion based on my overall experience and understanding of advanced electrochemistry for consumption and delivery

Alkaline Ionized Hydrogen Waters – Everything has a use somewhere and I am sure so does single polarity alkaline ionizers although none I am currently aware of and most certainly not for consumption.

I learned from Medical Professionals working in research the dangers of consuming high alkaline waters with unbalanced hydrogen content.

What I was taught is that consuming high alkaline water will lead to the death of the cells, the 1st problem is the cells lose the ability to process their own waste, this starts a cascades of problems leading ultimately to cellular death or destruction.

What happens if a cell is unable to get rid of its waste?

Lysosomes normally remove wastes and worn-out particles from cells, but when they are absent or malfunction, cells tend to amass these materials and become poisonous. The cell would eventually stop functioning correctly and perish as a result.

The consequences are correspondingly fatal if the autophagy process is faulty, too slow, or too fast. Neurodegenerative diseases and cancer can develop or disorders of the immune system may occur.

Consuming Hydrogen waters is a big subject.

The 1st thing we must take into consideration is the natural state of Humans. We are not high alkaline, we are neutral. Everything about us is either neutral, or there to keep us balanced too neutral.

Here again keeping in the rules of the environment we are working in, why would we consume high alkaline unbalanced hydrogen water?

Keeping in the rules, we need a neutral balanced slightly alkaline 7.4 pH to maintain our neutral 7.4 pH human organic systems. When consuming gases this rule does not change. We should consume a well-balanced hydrogen with reactive oxygen dissolved in a neutral 7.4 pH molecule of H₂O producing oxygen / H₂O as the byproduct of interaction.

This is the real “green” hydrogen & ROS. The H & ROS are created by separating the H₂O molecule not by some sort of chemical or metal reactions. Green Hydrogen produced by electrochemistry from only splitting water is the only safe hydrogen for consumption. This is the hydrogen source your body is looking for. To produce hydrogen and deliver it is only ½ the job, the ROS is just as important.

Do not get confused by ROS, not all ROS is the same, just as not all H is the same. ROS from NaCl and water balanced by H manufactured by dual polarity electrochemistry is fuel to the body not toxic. The ROS of concern to the system is environmental and chemical. This is a different subject.

To consume gases made from water is just as important in balance as everything else. Neutral balance is what our bodies build from NaCl sodium chloride, table salt and why NaCl is essential to all life – in proper balance!

Electrolyzer Performance

I can not even remember how many times I have heard how someone has purchased a water ionizer only for it to fail after a few months!

This is not only terrible for the individual but also for the entire industry as then they become someone who believes its all smoke and mirrors.

The problem is the same as it has always been “you get what you pay for”. If you buy a good story, then that is what you got. As always buyer be ware and do your homework.

The problem with all alkaline ionizers is they are not self cleaning and in most cases the end user is not aware of the maintenance required. These are mostly MLM impulse buys and the last thing the salesperson wants is to complicate the sale by informing you about the maintenance requirements of course. If you purchased a good serviceable unit, then in most cases you must send the unit back for maintenance, either a descaling or an electrode replacement. And yes it is a pain in the but and why they do not tell you when you buy it.

Dual Polarity Electrolyzers do not have this problem. They are self cleaning by nature of dual polarity. In the case of the Esperer.H2O model ES 2000 for residential on demand, every time the unit is cycled on and off the unit self maintains. This unit never needs maintenance other than changing the filters which is simple and accessible. When an electrode acting as a cathode scales up, to clean is simple, the polarity is reversed from negative to positive and the scale is released.

Another advantage of dual polarity. Never be with out a working unit.