
ELECTROLIFE

Our patented and industry proven ElectroLIFE Process uses the ionic product theory brought about by the science of electrolytic ion separation. With this process we can remove specifically targeted ions from water without the need for chemicals, additives or other toxic elements. Our solution is completely green and economically cost effective.

The ElectroLIFE solution contains an electrolytic device which includes an electrolytic bath chamber for storing the cooling water, a pair of electrodes disposed in the electrolytic bath, both contained within our unit and requires an electric source for applying normal residential voltage (10 Amps) between the pair of electrodes.

The benefit of basing a process on accepted science, such as Faraday's Law, facilitates the description of the mechanism in how water is treated through the processes of electrolysis. Our approach is consistently replicable, measurable and controllable which are important characteristics to technology that need to be relied upon on a daily basis.

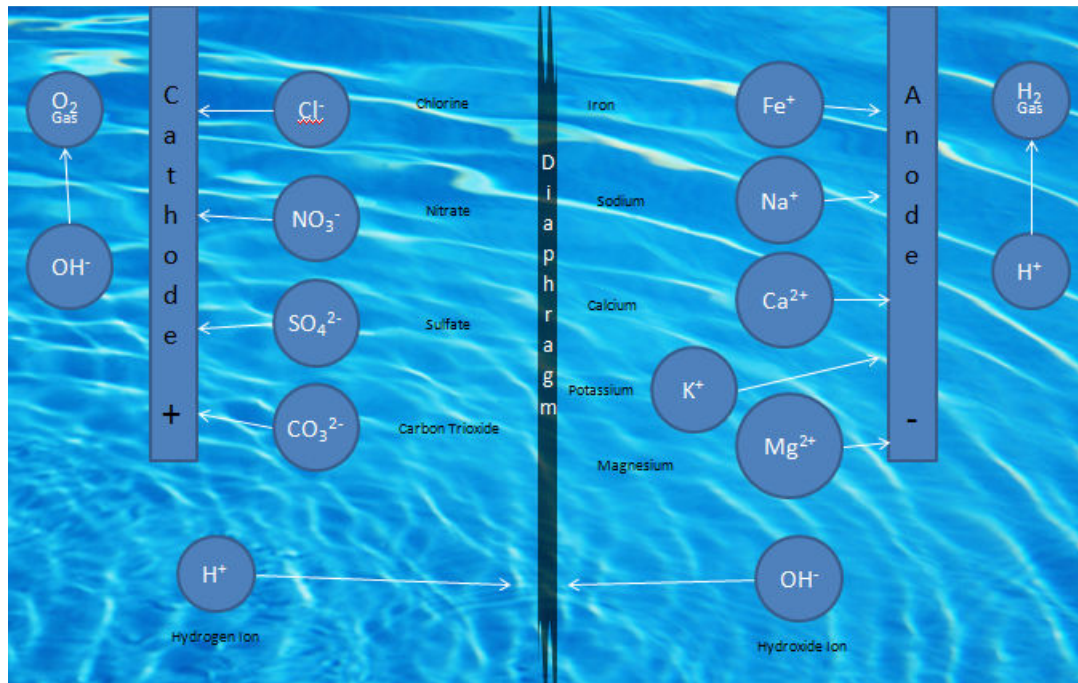
ElectroLIFE is derived from an advanced form of electrolysis based upon the science of electrochemistry and electrolyte treatment with the process applied to existing water. The system works by applying direct electrical current to the circulation water which in turn introduces a high level of energy resulting in a very effective removal of offending elements or compounds. This process works directly through the elevation of the Ion Product of Water.

All ions in water are either negatively or positively charged and conduct electricity. Movement of ions can be controlled by electrical current, ions with a positive (+) charge will react to a negative (-) charge and ions with a negative (-) charge will react to a positive (+) charge. The physical process of any current that is applied to the circulatory water takes place within the electrolysis compartment. The circulatory water enters and exits this electrolysis chamber at some point of its circulation.

The electrolysis bath chamber contains two electrodes. A negative electrical current is applied to one electrode while a positive current is applied to the other electrode simultaneously. During the time that an electrode is supplied with a positive current, negative ions will be attracted to it. Conversely, when the second electrode is supplied with negative current, positive ions will be attracted to it.

Examples of Ions in Water	
Positive	Negative
Ca++ (Calcium)	CO ₃ (Carbonic)
Mg++ (Magnesium)	Cl- (Chlorine)
Na++ (Sodium)	SO ₄ (Sulfuric)
K+ (Potassium)	NO ₃ (Nitric)
Fe++ (Iron)	
Mn4 (Manganese)	

The following diagram illustrates the flow of water from the water source, through a submersible or in-line pump to the ElectroLIFE unit and into the electrolysis bath chamber equipped with electrodes.



Ions are attracted to and attach to the electrodes; an anode and a cathode. Once the electrodes have accumulated an appropriate amount of ions based on the conductivity of the circulatory water the polarity of the electrodes is reversed. This causes the attached ions to release from the electrodes. They are then sent to drain and permanently removed from the circulatory water.

Examples of Ion Removal	
	<p>What is shown in the left hand picture is a buildup of the ions that were extracted from circulatory water. The white surface covering is individual ions that were attracted and attached to the electrode. When the reverse polarity procedure is activated this ion buildup will be immediately released and sent out through the drain.</p>



What is shown in the left hand picture are the ions that have been released from the electrolysis chamber after the polarity reversal was initiated.

The ElectroLIFE electrolysis process also increases the ionic product of water creating a higher level of dissociation activity within the processed water increasing the energy level of the water.

Within this process the system is also able to change the pH of the source water. The change in pH level effectively kills microbes that may be present in the water eliminating health concerns, discoloration or odor of the water. Additionally, the system changes the water to an acidity of 2.5pH and/or a base of 11.5pH to kill biologic organisms that live within that range. Afterwards the system can release the water at any pH level desirable including a 7pH which is the equivalent of regular drinking water.