

**WATER IS LIFE**.....all of the water on this planet, is all of the water that has ever been on this planet.....it constantly recycles.

Evaporation from the oceans and lakes on the earth, rise into the atmosphere to form clouds. The world's wind currents move these clouds around the globe at random.

When the clouds become heavier than the atmosphere around them.....it rains!

As the rain falls to Earth, it passes through our atmosphere, which in most cases is polluted by the industrial revolution that has taken place on our planet over the last 250 years or so.....The pollution attaches to the raindrops and forms what some people refer to as "acid-rain!"

This is very bad for the people who rely on rain for their drinking water.....from underdeveloped countries, to havens like Bermuda and other island countries.

However.....in North –America and Europe, one quarter of the population of our planet, commonly referred to as the "Western-World" they rely on 100,000 or so water-treatment plants to clean this "acid-rain."

When rain enters the earth's surface, this "mineral-metal ball" we live on filters out the pollutants.....or so we thought.....However, the earth too has become polluted with everything possibly imaginable! The surface of our world is full of toxic chemicals and other organic contaminants.

98% of the commercial water-treatment plants in the world are chemical-treatment plants, using chlorine, aluminum sulphate, alum and other chemical concoctions.

The very latest science says that using chlorine as a disinfectant in water, is slowly poisoning us by creating THMMS (tri-halo methanes and other organo-chloride contaminants). These byproducts of chlorine cause cancer in humans and animals.

Follow our cancer.....It's in our sinuses, mouths, throats, lungs, breasts, bladders, livers, kidneys, prostates, intestines etc. etc. etc. .... "Follow our urinary tract!".....Most of our cancer(s) go on to kill us!.....Ask yourself a question.....Do I have, or have I ever had a relative or friend who has cancer, or who has died of cancer.....The answer is yes! We all have.

There is an absolute epidemic of cancer in North-America and Europe! ¼ of the world's population.

Why is there not a cancer epidemic in China, India, Africa and underdeveloped countries.....because the don't (for the most part) chlorinate their water in those countries! They have cancer(s).....but no where near the epidemic proportions of ours.

Back at the end of the 19<sup>th</sup> century and early in the 20<sup>th</sup> century, chlorine was re-discovered as a cheap way of treating organically-contaminated water....chemicals and co-agulants coupled with settling tanks and filters became the state-of-the-art method of water purification!

Around the late 20's and early 30's.....the big chemical companies began a lobby to legally coerce all state and provincial governments and municipalities to use chlorine and other chemicals to purify water.....it worked!!!.....Today it is law (mandatory) that all municipalities in North-America and Europe must chlorinate their water!.....WHAT'S WRONG WITH LIME JUICE.....and many other natural disinfectants?

In 1995, at a conference on world water and the protection and conservation thereof....sponsored and hosted by Maurice Strong in Washington, D.C.....a young scientist from France announced his findings that chlorine was causing cancer(s).....it was long thought to be harmless to us....but he proved otherwise and had the nerve and courage to go on record, and publish his findings!

There were over 500 PhD's at that conference from all over the world. And a very short time after it was held.....the bottled-water industry exploded!

There are now over a 100 brands of bottled-water on the market "world-wide".....Most of these (85%) use a technology called RO (reverse osmosis).....

RO was invented in the early 20<sup>th</sup> century, as a method of removing salt from sea water to make it consumable by humans and animals.....It did a fine job!.....It takes everything out of water.....including "minerals! Minerals that your body needs.....it's like drinking "distilled" water.....

Water has to find a "balance" wherever it is.....it will adjust to find a neutral state of pH/conductivity!.....

When distilled or RO water is consumed by humans and animals it will "leach" minerals from their bodies to find a neutral balance.....This leaves us feeling tired and drained and causes other side-effects, dizziness, diarrhea and so/on.....but it's better than getting cancer from chlorinated drinking water.....isn't it?

There must be a better way.....well, after 25 years or/so and millions of research and development dollars.....there is!! It's electrolysis.....discovered by Faraday about 200 years ago. It's a natural way to purify water, both from the organic and inorganic standpoint simultaneously!

It was first used in the late 1800's and early 1900's to purify water. It was very cumbersome, maintenance intensive and expensive and finally given up in favour of chlorine, which was quick and cheap!

In the 60's and 70's, some scientists tried to resurrect electrolysis to use as a water-treatment, but was abandoned in the late 70's early 80's! Due to costs and complexity!.....

Then in the late 80's a man by the name of Cook discovered a new approach to the application of electrolysis.....“He put the anode down the inside of the cathode”.....to form a coaxial/concentric configuration!.....This was not brand-new, it was first discovered in the 60's.....

It took years for Cook to figure out the spacing between the anode and cathode. The type of metal(s) to be used for the electrodes the spacing and rotation and size of the holes in the cathode and many more parameters of his technology. In 1968, Dr. Kawahata of General Electric, spent 23 years and \$ 28,000,000.00 trying to perfect co-axial/concentric electrolysis (he failed).

Note(s):

The reason for concentric/co-axial electrolysis is that it allows for a very small gap between the anode and cathode and thus very economical electrical use. The narrower the gap, the cheaper the cost.

Kawahata gave up in 1991 when he could not solve the problem of how to get large volumes of water “linearly” down between the anode and cathode. The larger he made the gap to allow for increased flow.....the more expensive it became. In addition, he never did find an acceptable anode. One that could withstand the extreme “volt density” created by concentric electrolysis.

The original breakthrough for Cook was the “accidental” discovery of holes in the cathode. This allowed for “cross-flow” horizontally across the electrodes as opposed to Kawahata and others having to force water “linearly” down the gap between the anode and cathode.

The ESIL water treatment technology leaves in the “natural” minerals that are in all source water.....and nothing else.....it removes:

- Chlorine
- Aluminum Sulphate
- Alum Residual
- Mercury
- Lead
- Cyanide
- Arsenic
- And many, many, many, more chemicals and heavy metals.

- Bacteria
  - Parasites
  - Viruses
- > Natural Pathogenic Contaminants:
- P.C.B.
  - Furan
  - Dioxin
  - Perchlorate
  - Etc. Etc.
- > Chemical (man-made) organics:

Treatment of water is now moving to POU (point-of-use). For example, people in California are now spending as much as \$ 25,000.00 for extravagant and complex filter systems for their homes. While this helps a great deal, it does not deal with the soluble contaminants (arsenic, mercury, lead, cyanide and others), nor does it deal with nano-bacteria.

Cook's ESIL water technology treats organics, chemical-organics and non-organic contaminants "simultaneously"!

Electrolysis also produces "atoms," when you add an electrical charge to an atom, it becomes an "ion", more over a positive ion. These ions then collide with everything in the water that is "negative" (and everything in the water IS negative except minerals (soluble salts)), which are left in solution!

These collisions continue until a visible "floc" is formed.....and then are very easily filtered out.

Once ion bonding takes place..... "it's permanent" for all time (Faraday's laws), which means that the filtered residue is "inert" and harmless when disposed of.

ESIL is also the most efficient and economical way of producing hydrogen, "the fuel of the future." The hydrogen is 99.7777% pure and does not have to be "scrubbed" (a procedure to purify hydrogen).

There are no harmful side-effects or by-products when ESIL is used to purify water. No other water-treatment method can say that.

A number of events happen when water is treated by electrolysis.....

"New" (nascent) oxygen is produced and is very radical or active. It of course is oxidizing organics.....The electrical current (volt density) is also a major factor in the destruction /electrocution of organics! In addition the ozone created in-situ is ozonating organics.

This destruction is going on at the same time as the positive ions are dealing with the “in-organics” even the nano-and-microscopic carcasses of the “bugs” that are being destroyed are gathered up by the positive ion produced “floc”!

This “floc” is ION-BONDED and is inert.....it can be readily disposed of back into the earth, without polluting anything!

Cook’s technology is called ESIL.....it is the only treatment known that can deal with organic, chemical-organic and in-organics at the same time!!! Its by-products are the “inert floc”!.....pure oxygen and ozone and the fuel of the future in abundance.....HYDROGEN! When H<sub>2</sub> is burned, it’s only residual is pure water!

Electricity is natural! As is the staff of life.....WATER! mankind has made a mess of this planet and its precious resource.....”life-itself”..... “WATER”!!

Wars have been fought over oil in the last 50-100 years.....in the next foreseeable future, they are going to be fought over water!

It is said that when a person in downtown Chicago, Los Angeles or New York drinks a glass of water, it has been through 16 human beings before him! We are recycling and reusing water constantly.

Now.....there are 7,000,000,000 of us.....and we’re made up of about 72% water. We can go days without food.....but we must have water daily! That is a huge demand on a natural resource that is increasingly becoming more polluted by industry/fertilizers/pharmaceutical-residuals and human garbage and waste.

Even our spring-water and deep well water is contaminated by “toxic-run-off” and “leachate” from dump sites.

Let’s analyze where we are now.....we have 3 established methods of purifying water.....

One is chemical.....chlorine (which is the disinfectant) if it kills organics, what do you think it’s doing to us? WE’RE ORGANIC!.....Aluminum Sulfate and Alum (which are the flocculants).....leaves aluminum residuals in our drinking water.....recently linked to Alzheimer’s and other mental illnesses!.....Other chemicals used in chemical-treatment plants are just that.....CHEMICALS!.....Our bodies are not meant to be chemical-absorbers!

Two is reverse osmosis (RO).....This method of purification.....”squeezes” a quantity of water through permeable membranes.....if say 100 gallons, 33 TO 50 gallons goes to waste-water disposal, leaving 50 to 67 gallons useable.....HOWEVER.....remember that RO was invented to be used to remove salt from sea water, to make it consumable by humans, but primarily to irrigate vast tracts of land for farming.....it was never meant as a “main-line” water purifier.

Because it “strips” water (including the minerals and nutrients that our bodies absolutely have to have).....the “soluble-salts”! People who consume RO water should be taking “supplements” (which are man-made chemicals) or suffer from fatigue, dizziness, diarrhea and a multitude of other side-effects!

In addition.....RO produces “spent” membranes! These filters are saturated with every contaminant imaginable. When they are disposed of in a land-fill, they of course leach all of these contaminants back into our eco-system! If they are burned, then the residual smoke and ash sends toxins back into our atmosphere!.....However, if I had to choose, I would choose RO over chemical treatment.....It will disable or kill us slower!

The other treatment is a series of micro-filters and a variety of sand filters.....these too leave an abundance of toxicity in their residues.....

Both of the above methods.....RO and micro-filtration/sand filters remove “most” everything from water, however they have absolutely no affect on “nano-bacteria”.....which passes right through even the most intense membranes! (Our bodies will absorb nano-bacteria faster and more thoroughly.)

Distilled water is the other method.....it’s a detoxifier!.....Distilled water has no dissolved solids, as previously mentioned, water has to find “balance”, so it will leach minerals from your body to balance itself. The principle use now for distilled water, is to detoxify oneself.....(for a week or two-maximum). It will cleanse your system of toxins, but unfortunately it will also deplete your body of essentials like sodium, potassium, chloride and magnesium!

Distilled water is an absorber, it will absorb carbon dioxide, making it acidic. Read.....Dr. Joseph Mercola..... “Early Death Comes From Drinking Distilled Water” [www.mercola.com/article/water/distilled\\_water.htm](http://www.mercola.com/article/water/distilled_water.htm)

So what are we left with?.....If you study the water-industry trade publications, you will discover literally dozens and dozens of methods to purify water (by far.....most of them are some form of filtration). If you wanted to be absolutely safe from harm.....boil your water and then filter it through “activated-carbon”.....this form of purification on a large scale (municipally) would be prohibitive for two reasons.....first the energy cost (prohibitive) and secondly, by the time it got to our homes, it would be re-contaminated by our infrastructure (lead, bacteria etc. etc.)

It is very important to understand the natural-science behind electrolysis. What exactly does it do! (Read: Faraday)

1. It “smashes” water, breaking down everything water contains (except salts). If you put a particle-counter on a given source of water, you will find that its particulates have vastly multiplied (depending on how much power you administer). The more contaminated the water, the higher the current and the slower the flow-rate!

2. The gases that electrolysis produces are natural hydrogen, nascent oxygen and ozone.....which are absolute destructors of organics.....these gases (oxygen-ozone) couple with electric current, kill anything they come in contact with.....no living organism can survive in an electrolytic cell/chamber.....period!!

As this is happening to the organic matter in water.....simultaneously electrically charged atoms (ions) are bonding to the negatives in water.....everything in water including the carcasses of the pathogens that were just killed (bacteria, viruses and parasites) are being ion-bonded to form “particulates”.....which then can be very easily filtered out by “standard” filtration. These filters may be burned or buried without harming our environment.....once something is ion-bonded, it never lets go.....The “particulates” are “inert” (harmless).

Even in the case of the “3<sup>rd</sup>” contaminant. First is organic (pathogens).....Second are the in-organics (heavy metals) arsenic, cyanide, mercury, lead, copper, aluminum, etc. And “thirdly”.....man-made contaminants “organo-chlorides” (PCB’s, furans, dioxins, perchlorates, etc.).....

If you can understand synthesis, then you realize that organo-chlorides are manufactured under extreme heat and pressure.....PCB’s are made-up of benzene bonded together by hydrogen and then the chemical “arms” that are formed by that union are attached by either another hydrogen or chlorine atom. There are 10 “arms” to a PCB.....There are 209 isomers (combinations) of hydrogen and chlorine atoms.....The worst of which are known as 1242 and 1260.....When this complex structure is subjected to electricity in water (electrolysis).....the hydrogen and chlorine atoms are broken (smashed) and turned into “gas”.....The gas is set-free or absorbed or otherwise captured and all that’s left of the PCB are its basic elements HYDROGEN and CARBON.....(all things are hydrogen and carbon) natural elements! The same thing happens to furans, dioxins, perchlorates, etc.....The description of their destruction by electrolysis is.....DE-SYNTHESIS!

TO BE CONTINUED.....

By: Brian George Cook  
Author. “Without Prejudice.”