

The True Costs and Benefits of Water Ionizers

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This report is a comprehensive comparison of popular water ionizers. It is intended to separate the facts, the hype and the myths surrounding popular water ionizers currently available on the market. This study includes detailed information on the differences in the quality, bio-availability and stability of ionized water, a comparison of manufacturing and production, as well as filters and filtration methods.

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**What You
Need to
Know Before
Buying or
Selling a
Water Ionizer**

A Personal Note from Dr. Peggy Parker

This updated report still contains all of the information I published in 2007 with inserted updates which you will find in [brackets] throughout the text. It is my hope that you will find this additional information both useful and enlightening.

At the time I originally wrote this report some of the issues we now face on the internet had not yet surfaced. This updated report not only addresses the older, more common issues – which will undoubtedly be recycled through the coming months and years – it also addresses the issues that have become problematic over time since the first report was written in the summer of 2007. The last section of this report is entirely new and deals with non-electrical devices used to create alkaline water.

Since that time many things have come to light and there have been many new discoveries regarding Kangen Water™ and its distinction from all other ionized water. Much of this new research is the contribution of my partner Dr. Curt Eastin and I want to take this opportunity to honor him and thank him for his dedication to excellence, his tireless pursuit of the truth and his considerable skills in the area of research. Thanks to him I have much more information that will help you understand the vast differences between ordinary ionized water and the “Magic of Enagic”.

Thank you for your purchase of this report. Your financial contribution to this project fuels more research and education. Should you find yourself with a copy of this report that you did not purchase, please note that it is a copyright protected and destroy your copy. Your cooperation is greatly appreciated.

As you check out sites like Tyent’s Ionizer’s Reviewed, “No opinions . . . just facts”, you will find me misquoted and maligned in several places. They got that information because some distributors illegally published my work on their website. Publishing this report on your website, sending it out in hopes to secure a sale, forwarding it to others in your upline or downline is strictly prohibited and is in violation of copyright laws. But more importantly, it’s best if we keep this information within our own circle, that way we are always at least one step ahead of those who consider themselves our competition.

May this information bless your business so that more people can experience true health.

The True Costs and Benefits of Water Ionizers

Recently I have been asked to explain the differences between Enagic's water ionizers and others on the market so frequently that I decided to answer on paper so more of you would have access to the research I have done over the course of the past 2 years. Since I joined Enagic in February 2005, I have been asked this question 10 or more times per week. The more ionizing companies that begin distribution in the US, the more information pops up on the internet, and the more internet information that is published the more confusion there seems to be on the subject.

This is actually a wonderful phenomenon. The more the concept of ionization becomes a well known process, the easier it is to enter into a discussion about water ionization. It actually paves the way to greater understanding in the general public. This is great news! Each time someone visits a site discussing pH or oxidation or ionization, they receive some level of education in another way to assist them in living a more health conscious lifestyle. These educational "bites" also mean that you have less and less education to do to get your potential customer well informed on these topics.

Additionally, anyone who purchases any brand of water ionizer is making a positive impact on the environment. They are removing themselves from the hoards of people overburdening the planet with mountains of plastic bottles. So from an environmental standpoint all ionizers are one step closer to a cleaner planet.

However, as a consumer trying to educate themselves in order to make a wise purchase, there are many other things to consider. First and foremost, the machine needs to fit the individual's needs, be built to last, and provide true health benefits.

Unfortunately, not all water ionizers are created equal, nor are all manufacturers. Some companies are simply riding on the coattails of Enagic, a well respected Japanese company, and either inadvertently or purposefully misleading the general public; while other companies are in this industry to stay.

To better explain this, let's use the automobile industry as an analogy. There are many types of motorized vehicles manufactured and sold with the general purpose of moving people from one place to another. These would include manufacturers of luxury cars, farm trucks, and golf carts. Each of these devices has several things in common:

1. They all have motors
2. They all have wheels
3. They all have seats
4. They all have the capability of moving people from one place to another

So theoretically, each could transport you from LA to New York City, however the experience would be dramatically different. You can imagine that a cross country trip in a golf cart is an attainable trip, but when travelling at the speed of 20 miles per hour it would take a very long time to arrive at your final destination. Additionally, while travelling in your golf cart you would be exposed to so many natural elements that you would arrive at your destination in less than pristine condition. Now an old farm truck would be a big step up in speed and protection from the elements, but the ride would still be a bit bumpy and likely not entirely reliable. However, a cross country trip in a luxury car would be a trip one could look forward to taking. The ride would hold everything you were looking for, speed, safety from the elements, comfort and reliability.

This same concept is also true of water ionizers. All ionizers are capable of restructuring water. How much, how efficiently and how effectively the water is changed will be dependent upon 2 things – the quality and configuration of the electrical components and the composition of the filtration media. These factors encompass 90% of the differences from one manufacturer to another and should be *the deciding factors* in purchasing an ionizer. The additional 10% is simply price.

Any prudent, health conscious consumer will consider a water ionizer an investment in long term health. Therefore it would be wise to choose a machine which is capable of producing the best results over the longest period of time. To do less would simply be throwing money away.

However, it has been increasingly difficult for consumers to make that determination due to all of the distributor hype, false information as well as

lies published on the internet. So it is my goal that this document provides distributors adequate explanations and information to assist true information seekers make informed decisions.

Over the past two years I have noted that there seems to be a pattern in the questions that are asked repeatedly. Each time a new or existing ionizing company rolls out a new product there is a flurry of excitement, a resurgence of poorly documented information and a lot of press released on the subject of water ionizers. All of this new energy generally results in at least one new distributor who is on a mission. Unfortunately, the newest “expert” generally has little or no real background to truly understand the chemistry, physics and pathophysiology necessary to separate fact from fiction. When that happens some new article is posted on a website that causes a stir. Newcomers to Enagic who are not accustomed to these attacks begin to get questions from potential customers and are unsure how to answer them. I will attempt to remember all of the questions since early 2005 and answer them to my fullest ability in this document. The two most frequently asked questions these days revolve around a **paid advertisement** that a Jupiter distributor posted in early 2007. It poises itself as an article debunking the myths and facts around Kangen Water™. In actuality it is strictly an advertisement used by both Jupiter distributors and Life Ionizer distributors. It is NOT an article written to lay out facts and myths – it IS a sales promotion piece.

I am going to begin with that sales promotion piece. In the following paragraphs **the sales promotion article will appear in red** while my response will appear in black. Interspersed in the discussion I will include information on various other water ionizing units as they relate to a particular topic.

This article is written with the intention to address some of what is been said on other websites and in public meetings, so that customers wanting the best value for their money, are able to make an informed opinion about “Kangen water” without the hype.

This article is nothing but “hype”. The authors and Jupiter distributors who sponsor this article actually pay a monthly fee to the search engines to have it appear in the colored box at the top of the page. Those spots are reserved for advertisers. From my vantage point very little of what has been written is based on scientific fact or truth.

Myth 1: Kangen water is different from alkaline, ionized water.

Fact: The Enagic water ionizer contains a filter and ionizing chamber just like all other water ionizers.

Just to kick this discussion off, Kangen Water™ is a trademark owned by Enagic. It is Enagic's trademarked name for ionized, alkaline water with a high -ORP or antioxidant potential.

Enagic's water filters and plates are actually quite different from those used by all other water ionizing manufacturers. These differences, which will be discussed in detail, do make a dramatic difference in the quality of the water that is produced.

Let's begin by discussing the ionizing plates which make up the chambers. Electronically restructured, ionized water is produced when water passes over electrically charged metal plates (a more complete explanation follows on the next page). It is an irrefutable law of electricity, chemistry and physics that the higher the electrical voltage a plate can sustain and the longer period of time water stays in contact with this voltage, the more complete the ionization process. So in terms of ionization "bigger really is better." Enagic's LevLuk series utilizes 4 ¾ X 7 inch titanium plates that are heavily coated with platinum. Unlike any other ionizing units available at this time, Enagic's LevLuk SD501 uses 7 of these plates.

Other water ionizers use much smaller and fewer plates (Fig. 1a & b, 2).

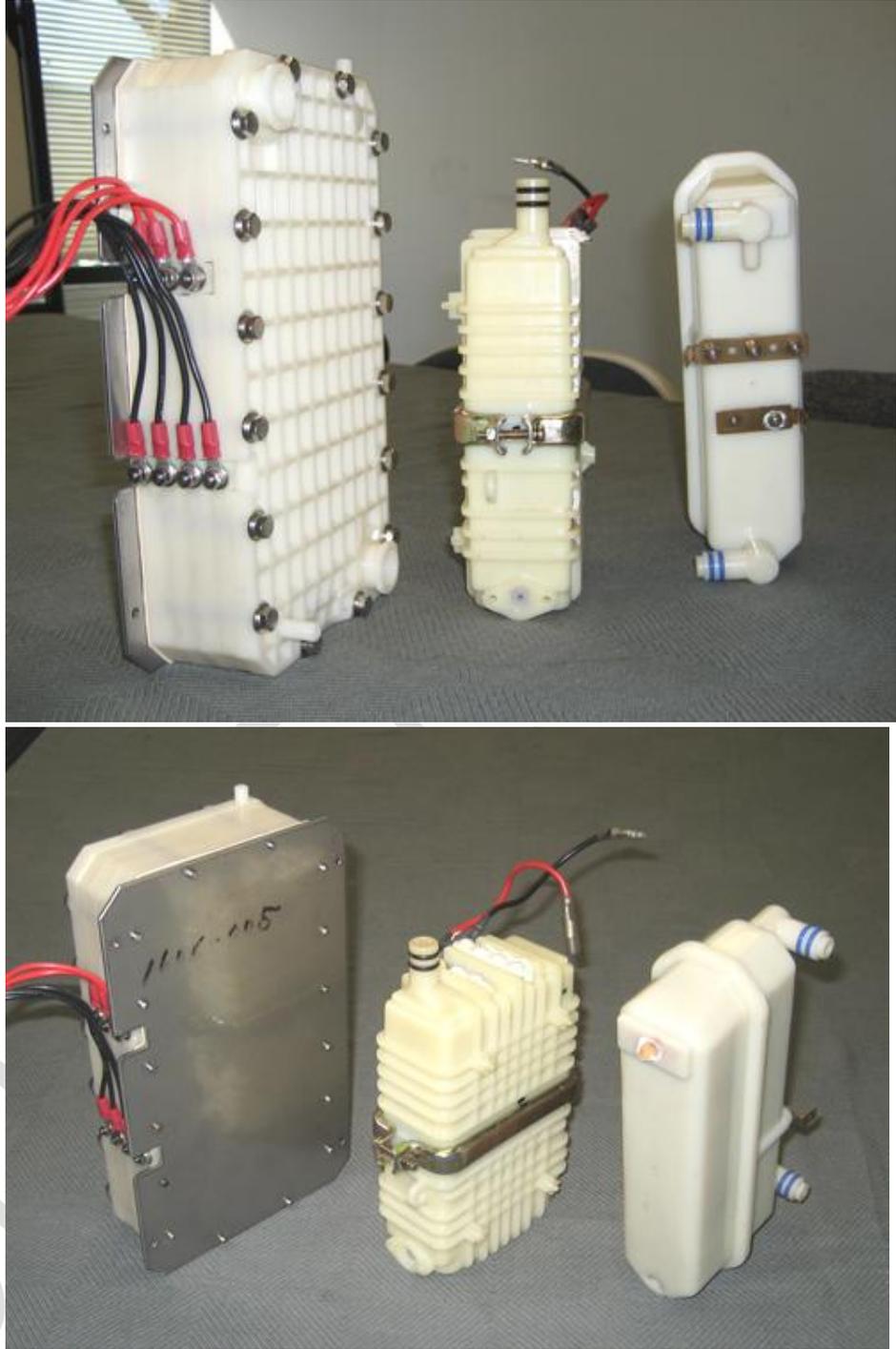


Figure 1 - SD501 Compared to Others



Figure 2 – Inside Jupiter’s Unit – Note the Size of the Ionizing Chamber

Since both of these metals are quite expensive, it is the plates that dictate the price of the machines. (A few months ago I actually weighed the plates on a postal scale and Enagic’s SD501 plates weighed 2.75 pounds.) At this time platinum costs \$1250/oz [\$1575/oz] and titanium costs have dramatically increased in the past 2 years with food grade titanium selling above \$400/lb and medical grade above \$1400/lb.

[The following information can be found on Tyent’s Ionizers Reviewed website:

THE PITCH: The Enagic plates contain more platinum and a higher grade of it. We saw one crazy writings where a self proclaimed “medical intuitive and Reikii practitioner” starts presenting the cost of platinum and titanium. In her write up, she says that she weighed the Enagic plates, and they weighed 2.7 lbs. Then she goes onto say that titanium is \$1400.00 per lb and that platinum is \$1250.00 per ounce. Keep in mind the Enagic machine cost around \$4000.00, but according to this write up, their plates are worth \$55,000.00. Go figure!

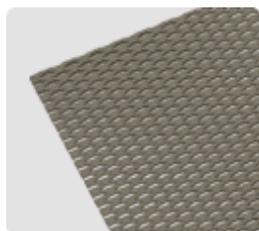
THE TRUTH: Platinum and titanium are very expensive, and certainly, the larger the plates, the more they will cost. Remember, there are two ways to create ionization. The cheap way is by using small plates and adding more power. More power is the shortcut so the manufacturer doesn’t have to spend as much on platinum and titanium. The other way to create very stable ionized water is by using plates that are over 6 inches long and over 3.5 inches long. There are a few companies (TYENT USA is one that we know of) out there that have that size of plates. Look for any one of them and you will do just fine.

Should I be flattered or insulted by this?

Of course these statements about me are taken completely out of context. The water cell I weighed contained more than just the plates, it also includes the plastic housing, the back plate and electrodes visible in the photograph.

According to the gentleman who imports Chanson ionizers all water ionizers purchase their water cells from the same manufacturing plant, Emco in Korea and they all pay \$18.00 for these water cells. At the current price of both titanium and platinum you cannot have much metal in that water cell.]

Last year (2006) the Jupiter Company ran a campaign that announced that "Bigger isn't Better!" This was a part of an advertising campaign to inform people that they had developed a technique utilizing mesh, rather than solid, ionizing plates to increase surface area without increasing plate size (Fig. 3).



Use of Mesh Titanium

One of the things we have done to improve our electrolytic cells was to cover our plates with titanium mesh. The increased surface area of the mesh increases the electrolytic potential of our water cells which makes the ORP(oxidation reduction potential) of the water very high."

Figure 3 – Jupiter's Mesh Plates

This sounds reasonable to people who are not well informed on the subject of ionization. And it is a wonderful way for the manufacturer to *save a lot of money in production*. However, it has some very serious flaws. A thorough explanation will take several paragraphs. Just so you won't get lost this text the explanation of ionization will appear in blue.

As most of you already know, ionization happens when water, HOH, dissociates into H₂ and OH⁻. The most efficient and effective way to accomplish this utilizes electricity. When electricity passes through water this dissociation happens quickly. The greater the electrical charge and the longer the water is exposed to this electrical charge, the more complete the ionization.

That is why water ionizing units use metal plates. Metal plates conduct electricity, and that electrical charge is what causes the dissociation of the water molecules. This brings up several points to consider:

1. Some metals are better electrical conductors than others. For instance, some manufacturers use aluminum, stainless steel, copper, white gold or metallic alloys. The most reputable companies use titanium and platinum.
2. During the electrolysis process these metals give up varying amounts of their metal into the water.
3. Titanium is chosen because it is a very dense metal. This makes it a good conductor of electricity over a very long period of time. Additionally, its density keeps it from readily breaking down in water. That is one of the reasons it is the preferred metal used in medical grade screws and pins to hold bones together. However when it does break down, it is considered toxic to the body.
4. Platinum is chosen because, unlike titanium, in minute amounts it is actually a trace mineral that has many health benefits.
5. The more heavily coated the plates, the longer it will take to break down the platinum and expose the titanium. (Of course the heavier the coating, the greater the manufacturing costs.)

These points are very important factors. Jupiter's mesh plates are made from titanium coated with platinum. While this mesh will conduct electricity, there are 3 distinct drawbacks to using wire mesh:

1. Wire mesh cannot conduct as high an electrical voltage as a solid piece of metal.
2. The higher the voltage passing through these mesh wires, the faster the metal degradation.
3. This results in a machine that has a shorter useful life.
4. [Lower electrical voltages result in very low production Hydroxyl ions (OH⁻) and Hydrogen ions (H⁺).]

In other words, each time electricity passes through these wires that create the mesh, more platinum is breaking down into the water. While that, in itself is not harmful to the body, it means that the titanium will be exposed sooner – and that *is* harmful to the body.

That is the very reason that bigger, more dense titanium plates with a thick platinum coating offer a more effective *long term* solution. These plates will consistently produce a more complete ionization process and will last much longer. Unlike any other company, Enagic offers a 5 year warranty because their units are made to last. [Please note that it is the composition of the plates that sets Enagic's units apart from all others. The amounts of titanium and platinum used are the most important components of any water cell.]

Gold Fox Company utilizes white gold rather than platinum. From the standpoint of durability, white gold is a much softer metal than platinum. Therefore as electricity flows through the plates the gold will rapidly break down exposing the platinum plates in a relatively short period of time. As pointed out in the paragraphs above, the coating medium provides a buffer to keep the titanium from coming into direct contact with the water. The faster that buffer breaks down, the sooner the machine becomes a health liability. [Gold Fox has been purchased by KYK and now uses only platinum.]

Some Chinese and Korean ionizers have used stainless steel and aluminum in their ionizers. Utilizing these inferior and much less expensive metals in the ionization process would create water that is actually hazardous to health.

As I stated earlier, the most reputable manufacturers of water ionizing units all use titanium plates coated with platinum.

The following is an excerpt from an official LifeIonizer website:

This continuous flow model is designed for countertop applications and is constructed with two built in pre-filters that total 12 stages of filtration.

- Highest pH of any Ionizer
- Highest ORP - Anti-Oxidant level of any Ionizer
- Twin Filters
- Five (5) Year Warranty Produce strong anti-oxidant water typically exceeding -850 mV
- Platinum coated titanium electrolysis plates
- Device has been designed and built with 12 steps of purification. (Patent obtained)
- Functions are activated or utilized easily by one-touch controls.

At this point I will address only the topics of pH and ORP. They boast producing water that is the highest of any ionizer, but their range is pH 3.5-10. That statement is inherently flawed. If the highest pH it produces

is pH 10.0 then the lowest pH it can produce is pH 4. Remember pH is measured on a scale of 0-14. This is a very simple mathematical exercise; add the pH number from the acid hose to the pH number of the alkaline hose and the total will always be 14. This is just a function of physics and chemistry.

[In the past 3 years it has become increasingly common for other ionizer companies to boast pH ranges that do not fall in line with accepted chemistry standards. That led me to investigate how those numbers were produced. The standard pH measurements of water that is ionized through electrolysis only will always total 14 – however, when ionization through the introduction of minerals is utilized those numbers can vary widely. In other words, when ionizing plates are inferior and cannot conduct sufficient electrical currents to produce alkaline water, adding minerals like calcium to the water enhances the alkalinity making it *appear* to have been restructured through electrolysis. This explains how these units produce a higher alkaline pH water without producing a commensurate low acidic pH water. Please see the section on filters and ionized minerals for more information on this subject.]

While official test data on the ORP readings is not yet available, field testing in the Bay Area revealed low positive ORP numbers when tested side by side with Enagic's SD501 which achieved high negative numbers. This is in direct opposition to the statement above which claims the "highest ORP – Anti-Oxidant level of any Ionizer. Advertising and marketing hype is one thing but misrepresentation of the facts to create a better market niche lacks integrity in the marketplace.

The next topic of discussion is filtration. While platinum coated titanium plates are unarguably the industry standard, differences in filtration styles and mediums have been used in an attempt to distinguish the companies from one another. This is one of the areas where manufacturers have made some wild claims about their filters. Filtration is a VERY IMPORTANT topic. The main job of any filtration medium should be to remove unwanted, potentially harmful debris and chemicals from the water without removing the minerals necessary for ionization.

Enagic's filters accomplish this by using 3 components (Fig. 4, 5):

1. Calcium Sulfite (CaSO_3) used for its biocidal or disinfecting properties
2. Antibacterial granular activated carbon
3. Mechanical filter that filters to 5 microns



Fig. 4 - Enagic Filter



Fig. 5 - Enagic Filter Dismantled

When dismantled there were only 3 components, those listed above, nothing more, nothing less. In the photo above the calcium sulfite and all of the granular activated carbon had been removed, leaving only the mechanical filter.

[In recent months there have been many internet postings referring to the dangerous nature of the components of Enagic's filters. These articles went on to point out the toxic nature of Calcium Sulfite. Below you will find my response to these postings. I must point out that if these companies actually understood the process of ionization through electrolysis they would never use such weak arguments. I prepared the following article in the summer of 2009 in an attempt to address the scare tactics rampant on the internet.

THE PITCH: The Enagic machine has the best and simplest filtration on the market.

THE TRUTH: The Enagic filters contain "calcium sulphite" also known as "calcium sulfite". According to our research, this is one of the most toxic substances on earth. Take a look at www.sulphitedanger.com for more info about calcium sulfite. Your Enagic representative will confirm that this substance is in fact in their filters.

Addressing the Calcium Sulfite Question

Calcium Sulfite is a naturally occurring mineral CaSO_3 . It is used in Enagic's filters as a disinfectant to clean the water before it enters the carbon filter. It does not tend to combine easily with water and when ionized it will break into $-\text{Calcium}$ ions, and $+\text{Sulfur}$ ions.

Any quick Wikipedia search will demonstrate the use of Food Grade Calcium Sulfite as quoted here: *Calcium sulfite, or calcium sulphite, is a chemical compound which is the salt of calcium cation and sulfite anion with the molecular formula CaSO_3 . As a food additive it is used as a preservative under the E number E226. It is commonly used in preserving wine, cider, fruit juice, canned fruit and vegetables.*

Remember the Calcium and Sulfur in their ionized forms they are separated by charge and the sulfur ion is discharged in the acid waters. The Calcium is present in the alkaline water.

Please keep in mind that the sites that are promoting this as a problem are selling Tyent units and under the guise of being an independent site that simply review ionizers. This is not so...the site was designed to sell ionizers and do so at the expense of being thorough, honest and factual.]

I have researched the official Jupiter website and spoken to several Jupiter distributors to get full disclosure on the contents of their newest filtration media. Below you will see a diagram from the official website. As you can

see, Jupiter's filters use varying amounts of Coral Calcium, Tourmaline, activated granular carbon and 4 layers of fiber filters in the .1M filter. In the .01M filter as much as $\frac{1}{4}$ of the activated carbon has been replaced by an ultra fine filter (Fig. 6).

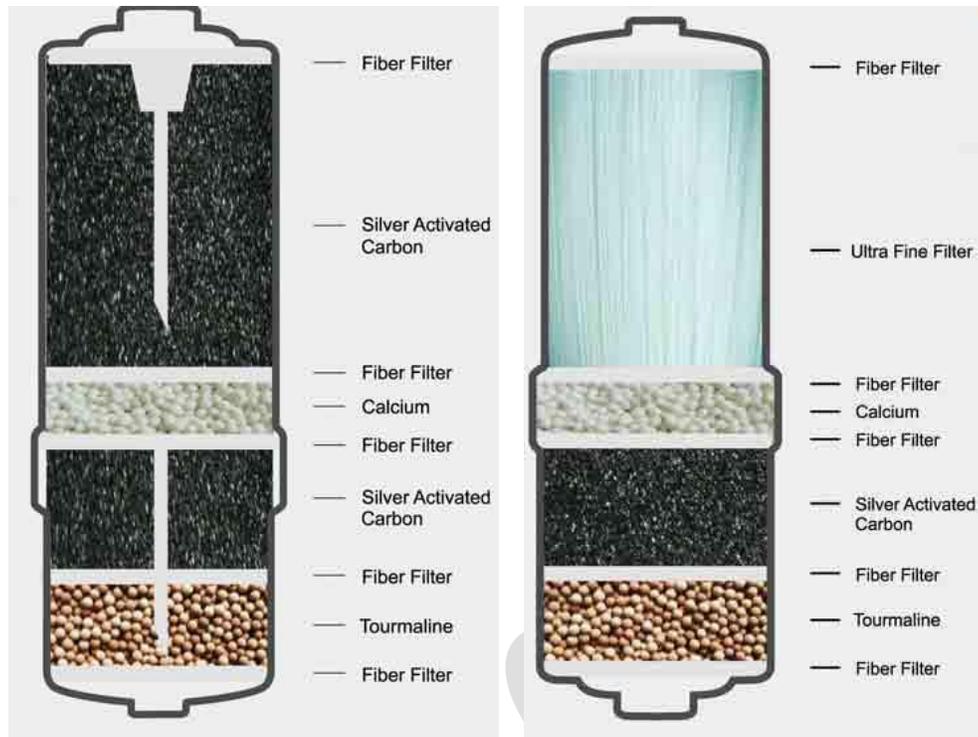


Fig. 6 – Crosssection Images of Jupiter's Filter Diagrams

Since this subject of the filters is quite extensive, the major points will appear in black, while the research in will appear in blue to help you make it through these topics more easily.

Coral Calcium:

In the past, Jupiter called the coral calcium Biostone. Recently this has been revised and is now referred to in their literature by its actual name, coral calcium.

While this is an organic source of calcium it is much like bovine sources of calcium found in inexpensive mineral supplements and is not easily assimilated by human bodies. That which is not easily assimilated by the body is also not easily eliminated by the body.

So what becomes of that excess calcium in our bodies – it creates stones like kidney stones and gallstones; it produces calcium deposits that can become bone spurs or joint deposits that create painful joints. It can cause hypercalcemia which can lead to a whole host of horrible symptoms including death.

[One more important fact to point out about coral calcium is the high levels of radiation and toxic elements that the coral is exposed to in the waters of Okinawa where it is harvested.]

On a less dramatic note, I have yet to find *tap* water in the US that doesn't already have too much calcium. This excess calcium creates lime deposits on our plumbing fixtures and can quickly coat our ionizing plates. This coating diminishes the flow of electricity through the plates, resulting in incomplete ionization of the water. When tap water is not completely ionized, many of the pollutants present in the water are not separated out and end up in the drinking water.

Tourmaline:

One of the items they report is that tourmaline produces an electrical charge emitted into the water as far infrared energy. After a solid week of researching tourmaline I have discovered many disturbing facts about this gem stone. The list is quite extensive, so I am going to print it in blue again so that you don't get lost.

1. Some tourmalines can produce an electrical charge, called pyroelectricity, when the stones are heated. Under these circumstances the stones yield a positively charged end and a negatively charged end.

This is a definite problem since the water passing through the units is cold rather than hot.

2. The other way to produce an electrical charge is to apply pressure to a tourmaline crystal in the specific direction of the vertical crystal axis. The stones in their official rendition of the filter are rounded pebbles. They do not appear to be laid in a specific direction to expose the vertical axis. Additionally, there is no pressure applied.
3. Tourmaline is comprised of many minerals which dissociate in water. Below is a partial list of minerals as well as a few of their potential toxic side effects:
 - a. Sodium – hypertension
 - b. Calcium – kidney & gallstones, bone spurs
 - c. Lithium – hallucinations

- d. Iron – heart disease, especially in men and post-menopausal women
- e. Aluminum – linked to Alzheimer’s (upon autopsy Alzheimer’s patients had 4 times the accumulation of aluminum than considered normal)
- f. Silicone – excessive bruising, stomach irritation, rashes
- g. Boron – interferes with normal estrogen and testosterone hormone production & hair loss

Micron Filter:

At .01 micron filtration, too few minerals present for complete ionization. Electrolysis requires adequate minerals. Too many or too few minerals impede complete ionization.

Once water begins to lack mineral content, it becomes more acidic and more oxidizing. It will then lock on to any minerals it can. It is reasonable to assume that this filtration process would encourage the transfer of minerals from the coral calcium and the tourmaline into this filtered water. If these minerals could be utilized by the human body, this would be a great big plus factor. However, since they are not bio-available to humans and can cause tremendous health risks, this is not a desirable feature.

12 Stage Filtration:

LifeIonizer, a Korean manufacturer, equips their units with 2 separate filters.

Each is billed as a 6-Stage filter. The official product specifications for the filters are as follows:

Specially devised, high quality 6 Stage filter: Life Ionizers have the most comprehensive pre-filters available on the market today. Each unit has two built in filters totaling 12 stages of filtration/treatment.

Stage 1

Pre Filter

Relatively large contaminants such as sand, dirt, residue are removed prevents Special Block Carbon Filter from being contaminated

Stage 2

Special block carbon filter

Removes unpleasant tastes and odors, residual chlorine, environmental hormones which easily dissolves into water and trihalomethanes

Stage 3

Poly-Ethylene Filter

Removes microscopic and contaminated substances that could not be removed from the previous filtering process

Stage 4

Active Carbon Filter

Removes chlorine, deposits formed and floating in water, trihalomethanes (mixture of organics with chlorines), residual chlorine, and volatile organically combined substances.

Stage 5

CaSO₃ H₂O

Adds alkaline minerals

Stage 6

Silver-Added Active Carbon

Preserves the beneficial alkaline minerals and removes unpleasant taste and odor from water.

As mentioned earlier, field testing 2 different LifeIonizer units produced very dismal ORP results – these readings were actually positive numbers – I was compelled by curiosity to determine what could create such appalling readings. A filter set was purchased and dismantled to verify all 6 of the separate filtration medium specified on the website in an attempt to rule out the filtration as the source of the problem. If it was just the filter, the problem could be easily solved by making a few minor adjustments.

The two filters were carefully sawn in half to reveal the contents in as undisturbed a fashion as possible. Much to our surprise there were only 2 things to be found in those filters – granulated carbon and a poly-ethylene filter. There was no block carbon, no CaSO₃ (Calcium Sulfite), and no pre-filter to be found. (Fig.7) This was true of both filters.



Figure 7 – LifeIonizer Filter Cross Section Cut – Resting on its Granulated Carbon

[When Tyent introduced its models to the market one of the features they promoted is its 2 filters. These are very small filters and 1 is granulated charcoal and the second is filled with minerals.

Below is their justification of the minerals added to ionized water:

THE PITCH: Some companies use inorganic minerals in their filters and the body cannot absorb inorganic minerals.

THE TRUTH: Inorganic minerals normally cannot be absorbed by the body, but the missing link is the ionization process. When inorganic minerals go through the ionization process, they become smaller (just like the water cluster size) and are transformed into ionic electrolytes which are easily absorbed by the body. Filters with inorganic minerals are on the cutting edge of health and wellness technology. It is an additional expense for the companies to add the minerals, but the benefit is passed on you as the consumer.

Who knew my articles would be so interesting to this company? The truth is that minerals automatically ionize in when dissolved in water. This does not require any additional processing or electricity to complete the process. It is simply a natural chemical reaction. Ionizing inorganic minerals does not make them more absorbable by the human body. The more minerals that are added to the water, the greater the load and the harder the body has to work to eliminate them.

This is NOT a feature it is a liability. These excessive inorganic minerals have been linked to arthritis, cataracts, bone spurs, kidney and gallstones and gout.]

UV Light:

Akai, another Japanese manufacturer, has the most unique approach to killing microbes present in the water. Akai utilizes a UV light to destroy undesirable microbes. While complete ionization should kill any microbial content in the water, Akai took an extra step to be certain. The remainder of their filtration utilizes activated granular carbon as well as a mechanical filter. [LifeIonizer has also added this feature. Once again, please keep in mind that SMPS power supply delivers considerably less electricity to the water since it is pulsed. Any unit that utilizes a SMPS power delivery source should add a UV light to ensure bacterial "kill".]

Myth 2: Kangen water is better than alkaline, ionized water

Fact: There are 2 ways the quality of Kangen or alkaline water are measured – by how acid or alkaline the water becomes (pH) and by how much ionization occurs (ORP).

As I pointed out in the previous "myth" point, Kangen Water™ *is Enagic's brand of alkaline, ionized water with a high -ORP.*

The very measurements that are mentioned, pH and ORP, are what sets Enagic's units apart from all of the competitors that I have tested to date. Enagic's units produce a stable and consistently higher pH and -ORP than other units. Each time I have tested the water from my SD501 in my kitchen, the pH holds at 9.75 for 21 days in a closed container out of excessive heat; and the ORP tests consistently at -925mV and holds at -900mV for up to 56 hours if stored in a dark glass bottle with a tight fitting lid on my countertop.

Because all water sources are different, your results may vary.

Over the past 2 years I have regularly called various Jupiter dealers to obtain information. I am always honest and tell them that I am doing research on water ionizers and I want to know anything that they can tell me about their machines. I was proudly sent to this site recently by a distributor. They consider this unit to be roughly equivalent in their line to our DX or DXII units.

At the time this test was performed, Jupiter was claiming that they could achieve a -800mV ORP from the Melody. But when I pressed the salesman, I was told that the normal readings were about -175mV. Tests performed in my own kitchen, using the same tap that is used to produce my Kangen Water™, showed that the Jupiter Melody consistently produced water which tested at only a -120mV ORP with a pH of 9.6. Another factor is that the ORP dropped at an alarming rate when stored in a dark glass bottle with the same parameters utilized with the Kangen Water™. After only 2 hours the ORP had dropped to -20mV. These tests indicate the lack of stability in the water which would generally be attributed to incomplete ionization, a direct result of inadequate ionizing plates.

The following chart was copied from a *Jupiter website* with test results:

The following analyses were performed by certified laboratories on water from a Jupiter Mavello ionizer, a model similar to the new Jupiter Melody.

Oxidation-Reduction Potential and pH:

Ionized Level	O.R.P.	pH
Tap Water	+ 10mV	7.0
Level 1 alkaline	-165mV	8.7
Level 2 alkaline	-185mV	9.7
Level 3 alkaline	-215mV	10.3
Level 4 alkaline	-248mV	10.8
Purified Water	-20mV	7.2
Super Oxide (Acid)	+65mV	4.5
BEST O.R.P.	-90mV to -250mV	

Keep in mind that the Sunus Model routinely produces an ORP reading of -125mV at pH 9.0 and -175mV at pH 9.5. Enagic's JrII model routinely produces a pH range from 2.5 to 11.5 with ORP readings which range from -375mV to -500mV for Kangen Water™ and +875mV for Strong Acid Water. Enagic's DX & DXII models range from -475mV to -625mV for Kangen Water™ and +950mV for the Strong Acid water. The SD501 produces a slightly higher range from +1175mV for Strong Acid Water to a -1200mV for Strong Kangen Water™, with pH 9.5 routinely producing -925mV. You can check my website for more information at www.kangenwtr.com.

The Akai unit consistently produced pH 9.45 water with an initial ORP reading of -250mV when using the same water source. When stored in the same dark glass bottle, the ORP dropped 50 points after only 30 minutes, and an additional 50 points in the next 30 minutes. After 16 hours the ORP reading had plummeted to -125mV.

[While we are on the subject of pH, here is one of the latest misrepresentations which I would like to address:

THE PITCH: Enagic has the only machine that will create "super water" which is 11.5 and 2.6 ph.

THE TRUTH: Enagic can in fact create that water. What they don't generally tell you is that a chemical is needed to do so. They say it is just a salt solution, but when we asked if we could just use salt water, the answer was "No". We assume there is more to the chemical than meets the eye, because the bottle reads "Do not drink".

The Electrolysis Enhancer is simple saline at a specific dilution to provide optimal results in the creation of Strong Kangen Water™ and Strong Acid Water. It is never advisable to drink saline solution. This warning is also on all bottles of saline which can be purchased at any drug store for a variety of uses. Making your own salt water solution could produce the same results if the dilution was correct. However, due to potential errors and to keep your warrantee in tact, you should only use the approved Electrolysis Enhancer in your unit. Please keep in mind that the old DX units as well as the Super 501 units only use salt to produce these strong waters.]

I have not yet tested the LifeIonizer in my own kitchen. Therefore, those results will become available at a later date. [LifeIonizer continues to

refuse to sell me an ionizer, so I have not been able to thoroughly test their unit.]

Independent tests carried out by ex-Enagic representatives (concerned about the high prices been charged), showed that the Jupiter Science Melody produced as high an ORP (negative ionization) as did the tested Enagic model and when salt was added to the calcium port produced a stronger acidic water than that achieved by the Enagic.

Please refer to the above section for the discussion on pH and ORP. But I must ask this – why would you add salt to the calcium port? This seems to be a desperate attempt to produce strongly alkaline and strongly acidic waters from a unit which provides no options for these strong waters.

Here are my test results, based on using the same water for all of the machines listed. I live in Spokane, Washington where our tap water is very hard, so I have it pre-filtered as it enters my home. This provides the optimum water for all machines.

Unfortunately, the ex-Enagic representative they were speaking of was in one of my down lines for a few days – just long enough for me to give her the benefit of all of my research, which Jupiter is now freely utilizing.

Unfortunately when there are very high prices there is also a need to justify the difference – hence the hype.

When I was a little girl there was a popular television show called The Real McCoys. Walter Brennan was the grandfather of the family and his favorite phrase was “No brag, just fact!” I think that their own published data answers their need for hype, while Enagic can just rest on fact.

Myth 3: Enagic units and Kangen water are recognized and approved by the Japanese Health Department, unlike other ionizers.

Fact: In the 1980's the Japanese Health Department recognized that ionized alkaline water from water ionizers had proven health benefits and described water ionizers as health devices.

In 1965 the Japanese Ministry of Health did recognize ionized water as a medical treatment for gastrointestinal disorders. This was not specific to any brand, but did have some criteria in the pH and –ORP ranges. At this

time I do not have those specific numbers, but I will give them to you at a later date. At that time these units were not flow through home models, but large batch units used by medical researchers.

Keep in mind that for the first 17 years of Enagic's existence they were producing large units for hospitals. If you have watched the story of Mr. Abe's feet, you will see the large unit in the hospital.

To this day Enagic's water ionizers are the only units approved for hospital use in Japan. The following is a verifiable list of Japanese hospitals currently using Enagic's units:

- Hanabatakre Hospital
- Kanto Teishin Hospital
- Kitari Medical Center
- Kyowa Hospital
- Lida Hospital
- Meiseki Hospital
- Nara College of Medicine Hospital
- Showa University Hospital
- Tokyo Women's College of Medicine Hospital

Patients were treated with both the drinking water and the strong acidic water. When they were discharged from the hospital they had to go to a pharmacy or back to the hospital to get more water to maintain their treatments. It was in answer to the request of patients that Enagic began the development of home units in 1997. These home units were rolled out in about 2000.

Enagic's Leveluk models are approved as a *Medical Device* by the Japanese Ministry of Labour and Welfare #21600BZZ00376000. Additionally, the Leveluk Series are the only water ionizing generators to be given the Seal of Approval by The Japanese Association of Preventative Medicine for Adult Lifestyle Diseases. This association is comprised of more than 6,500 Japanese physicians and surgeons.

[Here is a list of some of Enagic's credentials:

- Manufacturing License of "Medical Device" by Osaka (Japan) Prefecture, License No. 27BZ006010
- Certificate of Medical Device Marketing Authorization by the Ministry of Health, Labour and Welfare

- Government of Japan, License No. 2 7B2X00070, No. 764, February 1, 2006.
- Product recognition by the (Japanese) Geriatric Disease Prevention Association (6,500 members), Reg. No. 1120
- U.S. Certification of Registration: No. VA 1-408-891: Enagic Kangen Water – Alternative title: Enagic, March 29, 2007
- U.S. Patent and Trademark Office: KANGEN WATER Reg. No. 2,990,706, August 30, 2005.
- FDA Food Facility Registration No. 181619995856.
- UL Canada and U.S. Listed as Water Clarifier No. 47YT.
- Certified Environmental Management System: ISO 14001; ANAB accredited DNV.
- Certified Quality Management System: ISO 9001 – 2000; ANAB accredited DNV.
- Award from the International Earth Environment University: April 18, 2004 (4. Drinking electrolyzed water enhances good health and prevents lifestyle-related and other diseases which in turn significantly cuts medical costs.).
- Det Norske Veritas Management System Certificate No. 3821-2007-AQ-NOR: Standard ISO 13485: 2003: (Design and Manufacture of Electrolysis Water Generators for medical and General use, Water Purifiers and Water Processing Machines with Maintenance).]

Myth Four: Well known authorities on ionized water endorse or recommend Enagic ionizers.

Fact: The best known authorities in the USA such as **Dr. Robert Young** (author of The pH Miracle), **Dr. Theodore Baroody** (author of Alkalize or Die), and **Sang Whang** (author of Reverse Aging) all recommend and sell Jupiter Science or LIFE water ionizers because they want to give their customers high quality kangen or alkaline water ionizers at an honest price. If Enagic is such an old established, reputable company offering technology that is so much better than what other ionizer companies can offer for much less - then where are their credible spokespersons?

Well, I for one of many, stand here doing my best to spread the truth, and that truth is based on the actual science behind the technology. In my sales group alone there are dozens of MD's, ND's, DDS's, DC's, RN's, LaC's, Nurse Practitioners, Midwives, Colon Hydrotherapists, Massage Therapists, Physical Therapists, Reflexologists, and many other health care professionals. Many of us actually recommended ionized water to our clients and some actually promoted another unit. It was not until I actually experienced the power of Kangen Water™ in my own life, thoroughly tested it for more than 6 months, and followed the test results of my patients that I was willing to even allow anyone to purchase a machine from me.

Many, many physicians are wonderful healthcare providers but have not felt the need to become authors. This does not make them less credible, just less well known. I have had the privilege to meet many other credible healthcare professionals who are Enagic Distributors. The most well known is Dr. Shinya, the doctor who actually invented colonoscopy. If any company wants to engage in a battle of credibility, I challenge them to trump his credentials. In fact, many of them use his DVD to promote the use of their water even though he is an Enagic distributor.

Myth 5: Kangen or Enagic ionizers cost more because they are better.

Fact: The Jupiter Melody is priced at around \$1000 and . . . the price of the Enagic models has more to do with compensating the Enagic MLM reps than the actual cost or the comparative technology inherent in their ionizers. The price of Enagic models has more to do with compensating the Enagic MLM reps than the actual cost or the comparative technology inherent in their ionizers. To verify that, simply ask Enagic about their compensation plan and see how much money is paid to the various levels of the network organization when one machine is sold.

All sales organizations have profit margins built in to their products. Typical retail markups range from 100 – 200% depending upon the product. The higher end the product the higher the mark up. Mark ups are the vehicle which provides payment to fund research and development, marketing companies, advertising agencies, wholesale resellers, sales staff, as well as profits required to stay in business.

Enagic is no exception. Neither is Jupiter, Akai, LifeIonizer, GoldFox or any manufacturer of any product. The manufacturers of these other units make a profit, the importers make a profit, the US company that distributes them makes a profit and the individual resellers also make a profit.

Enagic has just chosen to pay its “sales staff”, made up of independent distributors, differently. Enagic’s Compensation Plan uses a very similar model to a retail establishment – it simply cuts out most of the middle men. In fact, the compensation plan is so unique that it has a patent pending.

Recently Jupiter has decided to roll out a new product utilizing an MLM strictly utilizing a binary system. So the rebuttal to this point should be permanently put to rest by all Jupiter distributors.

The facts are evident; the cost of an ionizer is dependent upon the materials used to produce it. Simply stated, the more platinum and titanium used to produce the machine the more it costs to produce it and production costs always result in a higher price point. This is true in any category of manufactured goods.

Enagic products are sold by MLM "reps" who typically do not have a thorough technical understanding of the properties of water, ionization and how the two together produce health benefits. There are exceptions; reps who have really rolled up their sleeves and educated themselves, but the fact remains that there is a lot of "bogus" information fed to people who have been to Enagic presentations. Going to a few MLM presentations does not make one an expert in something, especially something as complex and technical as ionization. Enagic "reps" are often innocently fed misinformation and led to believe in half truths.

I will be the first to agree that Enagic's distributors, as a whole, lack appropriate education on these complicated subjects of ionization, oxidation and pH. That is the sole reason I developed the training seminars that I offer. Many of you have taken advantage of that training and are out presenting the facts in a clear, understandable, concise manner. Others need to avail themselves of every educational opportunity possible until you truly learn the basics.

The same lack of education seems to be a serious problem among all water ionizing companies. I have yet to find a credible website with true scientific facts and no hype from any company. It is my hope that this article will be the beginning of a system-wide change among distributors of all water ionizers.

Myth 6: Enagic has been marketing "Kangen Water" for 30 years.

Fact: What became the Enagic brand was initially manufactured by Toyo Metal who recently sold marketing rights to Enagic.

Please refer to Enagic's website at www.Enagic.com and look under Company History to read all of the details of Enagic's history for yourself.

The following information is all new to the 2010 updated report and it deals with many of the questions I regularly get by phone and email and they are generally frequently asked in live seminars as well.

Creating Alkaline Water with Minerals, Drops, Sticks, Wands and Magnets . . .

The absolute truth is that you can create alkaline water in dozens of different ways. The truth is that all water ionizers can create alkaline water. The truth is that by adding minerals, even simple saline to water, you can create alkaline water.

I know this because for many years I drank RO water and added minerals to it to make it alkaline. It works. And if drinking alkaline water was actually a key to achieving cellular health, I would have been one of the healthiest women on the planet.

Recently someone brought me a small bottle of "alkalinizing drops" which worked. They are a 25% solution of salt mixed with water and when added to ordinary tap water the water became more alkaline.

I tested a hydrogen stick, chock full of minerals, it made alkaline water.

I tested magnetized water it was slightly more alkaline than the tap water it used as its source water.

The truth is that when you add minerals to water you create mineral ions which can be measured with an ORP meter. So the truth is that other water ionizers can produce a -ORP primarily because they add inorganic minerals to the water. As minerals dissolve in water it is a simple chemical reaction that they become ions. It does not take any special processing to accomplish this. Please keep in mind that the P in ORP stands for Potential. Also keep in mind that the more alkaline a solution the more Potential it has to carry more negatively charged ions in the solution. ORP only demonstrates that there is a Potential to carry anti-oxidants. It is not a definitive measurement of the anti-oxidant property of the fluid.

The most important thing to keep in mind here is this, the secret to Enagic's Kangen Water™ does not lie in its pH, nor solely in its ORP

readings . . . the true secret is in the anti-oxidant properties that are created due to its superior plate construction and its ability to utilize a high electrical wattage delivered in a continuous stream. This, and this alone, sets these units apart from all others.

Remember large plates which can carry high electrical wattages for extended periods of time create complete ionization through electrolysis.

Complete ionization utilizing electricity only creates alkaline water and lots of antioxidants.

This puts all other devices, additives, and mechanical processes into perspective.

Both Dr. Eastin and I do hope that this report, has been a beneficial tool to help you become a more powerful ambassador for health.

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