

**Independent Analysis: Environmental Testing and Research Labs®**

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Objective: To determine the filtration effects of Water Ionizers, if any, on the purity of water when dispensed via Water Ionizers in purified mode. Please note that this analysis was not conducted to determine the effects of Ionized Water but was conducted to determine the effectiveness of the respective filtration processes.

Water Samples were taken from the following units and sent to ETR Certified Labs® for an Independent Water Analysis:

- Tap water (at source to obtain a baseline)
- Enagic Kangen SD 501
- Jupiter Aquarius
- Life Ionizer 8100
- Tyent 7070

The above ionizers are the top of the line models from each manufacturer at time of testing.

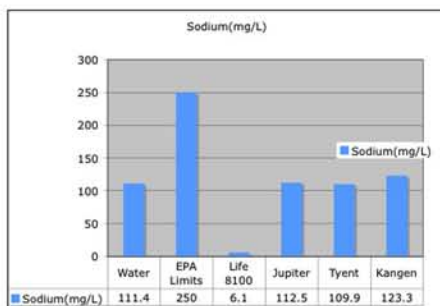
ETR Labs® tested for the following contaminants:

Sodium Calcium Odor Chloride	Potassium Arsenic Conductivity Hardness	Copper Lead T.D.S. Nitrate	Iron pH Sediment Zinc	Manganese Turbidity Alkalinity Nitrite	Magnesium Color Chlorine Sulfate
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The analysis revealed some disturbing facts about the quality of your water when passing through an ionizer in purified mode. We have condensed our findings to reflect only those items of concern. Below you can download the entire reports for your convenience.

**SODIUM LEVELS**

Excess sodium intake is linked to: hypertension/high blood pressure and heart disease, fluid retention (oedema) and kidney stones.

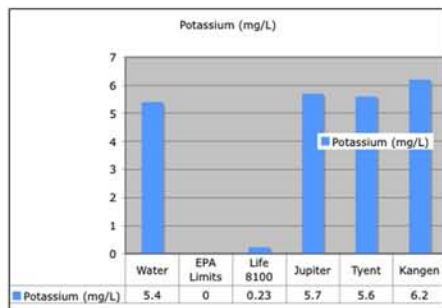


Conclusion: Whilst all Ionizer brands showed below EPA Levels for Sodium, it would appear the Life 8100 performed better than the others.

### POTASSIUM

#### Dangers of Too Much Potassium – Hyperkalemia

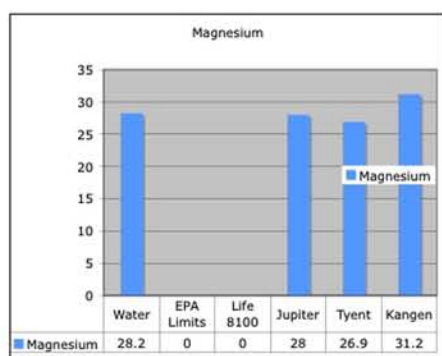
A potassium overdose can also be dangerous. Known as hyperkalemia, too much potassium can result from kidney problems, severe infection, or diuretics that retain potassium. (Please note there are no set guidelines for Potassium as set forth by the EPA, hence the zero reflection on the chart)



Conclusion: Currently, there are no EPA guidelines for potassium concentration in water. In reviewing the charts, it would appear that The Life 8100 performed better than the others.

### MAGNESIUM

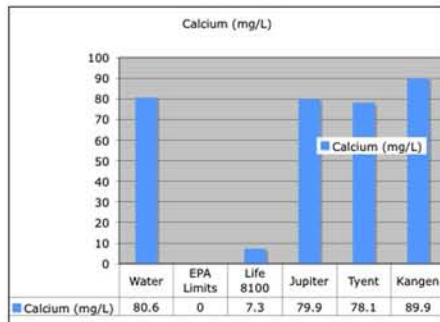
Although during Ionization, Water Ionizers will in fact increase the Magnesium concentration, during purification mode these minerals are removed and this shows the effectiveness of the Life filtration system. With these types of impressive results, you know that other contaminants are being effectively removed. (Please note there are no set guidelines for Magnesium as set forth by the EPA, hence the zero reflection on the chart)



Conclusion: While the Kangen showed a slight elevation in Magnesium content, Jupiter and Tyent displayed the same magnesium content when compared against the baseline tap water. The Life 8100 showed a zero magnesium reading indicating a highly effective filtration system.

**CALCIUM**

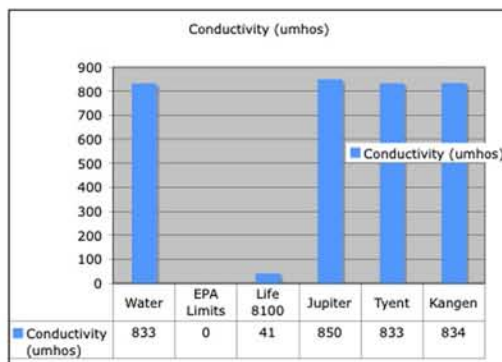
Although during Ionization, Water Ionizers will in fact increase the Calcium concentration, during purification mode these minerals are removed and this shows the effectiveness of the Life filtration system. With these types of impressive results, you know that other contaminants are being effectively removed. (Please note there are no set guidelines for Calcium as set forth by the EPA, hence the zero reflection on the chart)



Conclusion: The Life 8100 shows the lowest concentration of Calcium Minerals.

**CONDUCTIVITY**

Conductivity will show the electrical resistance measured in umhos/cm. Sodium is a good conductor of electricity amongst other trace minerals and organic elements. If these contaminants and trace minerals are moved from the water, the conductivity of the water will naturally decrease. (Please note there are no set guidelines for Conductivity as set forth by the EPA, hence the zero reflection on the chart)



Conclusion: The Life 8100 results indicate the least amount of conductivity~ a good indicator of high quality filtration.

**T.D.S**

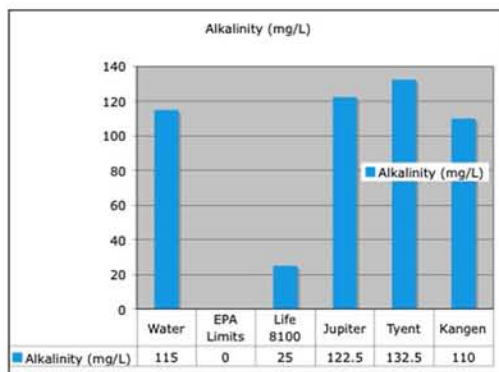
The T.D.S. is the Total Dissolved Solids in the water and refers to everything that can dissolve in the water both good and bad. It is essentially a measurement of how much "stuff" is in the water. This refers to both organic and inorganic materials in the water.



Conclusion: All Water Ionizers were consistent with the baseline tap reading while The Life 8100 indicates the lowest amount of TDS. This is indicative of a high quality filtration system.

**ALKALINITY**

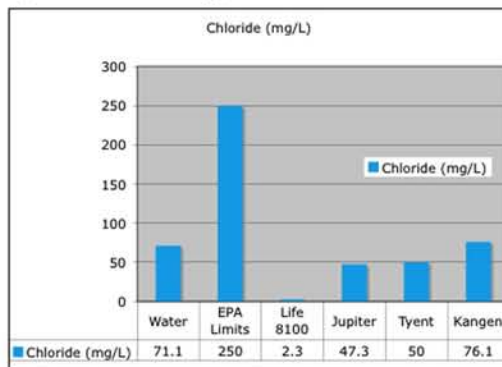
According to the results Alkalinity refers to the ability to neutralize acid. It is a measurement value not in pH and relates to the ability to neutralize acids. (Please note there are no set guidelines for Alkalinity as set forth by the EPA, hence the zero reflection on the chart))



Conclusion: The Life 8100 has the lowest concentration of alkalinity an indicator of superior filtration.

**CHLORIDE**

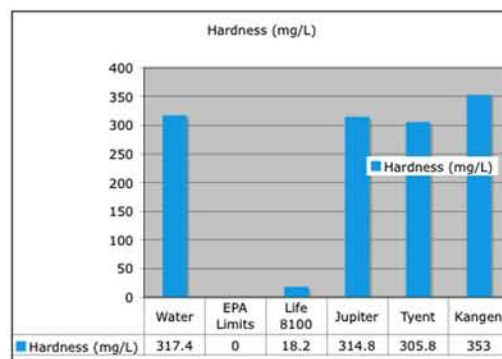
Chloride is a component of Salt (Sodium) People suffering from kidney disease and very young infants cannot tolerate high sodium intakes because their kidneys cannot excrete the excess. For this reason, salt should never be added to any foods for young babies. Too much sodium in the diet has been associated with an increased risk of developing stomach cancer and adverse effects on the kidney if there is some underlying abnormality. It is also one of the dietary and lifestyle factors that have been linked to high blood pressure or hypertension.



Conclusion: while the EPA Limits are extremely high for Chloride, all Ionizers showed significantly less Chloride with the Life 8100 showing the lowest levels.

**HARDNESS**

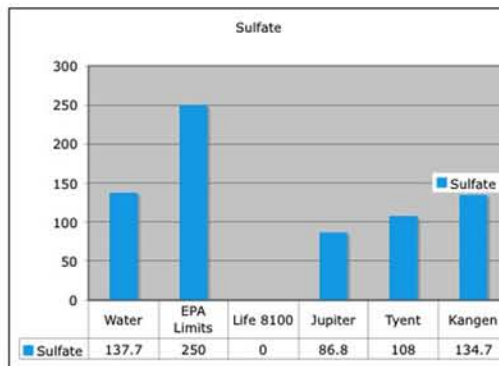
According to the U.S. Geological Survey, more than 85 percent of the United States geography has hard water. Hard water forms when naturally occurring minerals enter water sources. Over time these minerals are absorbed by ground water. The hardness is composed of mainly Calcium and Magnesium. (Please note there are no set guidelines for Hardness as set forth by the EPA, hence the zero reflection on the chart)



Conclusion: Life 8100 was the most effective at reducing the hardness of the water.

**SULFATE**

Sulfate (SO<sub>4</sub>) can be found in almost all natural water. The origin of most sulfate compounds is the oxidation of sulfite ores, the presence of shales, or the industrial wastes. Sulfate is one of the major dissolved components of rain. High concentrations of sulfate in the water we drink can have a laxative effect when combined with calcium and magnesium, the two most common constituents of hardness. People not used to drinking water with high levels of sulfate can experience dehydration and diarrhea. Kids are often more sensitive to sulfate than adults. As a safety measure, water with a sulfate level exceeding 400 mg/l should not be used in the preparation of baby food. Older children and adults become used to high sulfate levels after a few days.



Conclusion: While all Ionizers and tap water were well below the EPA guidelines, The Life 8100 showed no traces of sulfate indicating a superior filtration system.