

# Leveluk Machine Q&A

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## Water Related Questions

1. Will the state of the water change when heated or refrigerated?

The state of the water does change when the water is heated or chilled. When heated, the ORP and pH changes. When chilled, the ORP will change but the pH will remain the same for up to a week based on the quality of water.

2. Why does Kangen Water® sometimes have an odor?

Unpurified water has minerals in it<sup>1</sup>. LeveLuk is designed to handle a standard amount of minerals. When the amount of minerals or free carbon dioxide<sup>2</sup> is greater than usual, the minerals occasionally react with the anti-bacterial feature<sup>3</sup> of the water supply hose, giving off a smell.

We have prepared a water supply hose for such cases. When running water through the appliance for the first time, please set it on purified water and let it run for two to three minutes longer than usual.

### **<sup>1</sup>Minerals**

Ca (calcium), Mg (Magnesium), Na (Sodium), Ka (Potassium) and other nutrients found in food and water. Minerals found in water are said to be especially good for the health in optimum amounts.

### **<sup>2</sup>Free carbon dioxide**

Carbon Dioxide found in water. Some people prefer the taste of water with carbon dioxide, which tends to have lower pH levels. Water with less carbon dioxide is said to be better for the health. Japanese sake tastes better when there is a moderate amount of carbon dioxide in it.

### **<sup>3</sup>Anti-Bacterial feature**

Appliances such as the LeveLuk that produce something for human consumption are given anti-bacterial treatment. These appliances often comprise many different parts, and it is especially important that the parts where water passes through are not contaminated.

### **3. Can Kangen Water® be used to take medication?**

Kangen Water® is intended for everyday drinking and cooking rather than for drinking with medication.

The Japanese Ministry of Health, Labor and Welfare gives the following directions:

1. Do not take medication with machine-produced water.
2. Do not drink machine-produced water if you have anaciditas<sup>1</sup>
3. Seek help from a doctor or pharmacist if you feel an abnormality in the body, or continued intake does not appear to improve symptoms. This is because the effectiveness of medication using Kangen Water® has not yet been tested. The pH level of stomach acids is about 1.8pH, and medication is prescribed in accordance to this pH level in order for it to take effect past the stomach. Therefore, to ensure full effect of the medication, we recommend leaving some time between taking the medication and drinking Kangen Water®.

### **<sup>1</sup>Anaciditas**

This symptom, also known as gastric acholrhidria, is found in people with a stomach acidity higher than the average human pH level of 1.8pH. This makes it harder for them to digest food. These people should not drink alkaline Kangen Water®.

### **4. What about differences in quality of raw water?**

The type of original tap water used affects the quality of Kangen Water® and acidic water produced by electrolysis. Although water produced with municipal city water is not affected, the efficiency of electrolysis drops when well water is used since it tends to hold a lot of free carbon dioxide<sup>1</sup>, as well as in cases where water comprising only a small amount of electrolytic minerals is used. Conversely, in cases where the water has excess minerals, the taste may be affected, or Kangen Water® produced may be too high in pH level. Since the water pressure of the faucet affects the production of water, it is important to confirm that genuine Kangen Water® is being produced by regularly checking that it is set at the correct pH level, and

checking the bubbles. In order to take into account the differences in the quality of the original tap water, please run a check on a daily basis.

### <sup>1</sup>Free Carbon Dioxide

Carbon Dioxide found in water. Some people prefer the taste of water with carbon dioxide, which tends to have lower pH levels. Water with less carbon dioxide is said to be better for the health. Japanese sake tastes better when there is a moderate amount of carbon dioxide in it.

### 5. What are the benefits of consuming Kangen Water®?

The benefits of consuming Kangen Water® are the minerals it contains and the optimal hydration it offers.

### 6. What is Mengen Effect of consuming Kangen Water®?

Depending on how it is consumed, and on the individual's physical state, it is possible (although uncommon) to experience constipation or diarrhea a few days to a few weeks after first starting to drink it. In herbal terms this is known as the Mengen effect<sup>1</sup>. The two conditions are particularly similar in that both cases, the remedy is so effective that it has a negative effect. If this occurs, the amount of intake should be reduced to half or a fourth of the previous amount until symptoms clear. Once symptoms have subsided, it is okay to resume intake. However, increasing the amount of intake will not alleviate the symptoms. Since halting intake completely may also affect the body, it is best to continue intake, but in lesser amounts. If there are no signs of improvement, please consult a doctor or pharmacist.

### <sup>1</sup>Mengen effect

Your body may start hurting several hours or a day after you receive chiropractic. The technical term for this is the Mengen effect. It is a natural physical response, where the body tries to go back to normal after muscles and bones have been adjusted.

### 7. What is beauty water (acidic water) and Strong Acidic Water?

Acidic water has a pH of around 5.5-6.5 and strong acidic water has a pH of lower than 2.7. The Japanese Ministry of Health, Labor and Welfare has certified acidic water as an astringent<sup>1</sup>. Strong Acidic Water has excellent cleaning characteristics and can be used to clean household surfaces and to remove pesticides, dirt and other impurities from food.

### <sup>1</sup>Astringent

Acidic water works as an astringent for toning your skin. 'Astringent water' refers to acidic beauty water.

### 8. How do I use Kangen Water® for beauty care?

Because winter air is extremely cold and dry, skin care is especially important during this time. Without taking care of your skin properly, you will suffer from dry and rough skin. Bodily fluids play an important role in maintaining your body temperature and the health of your skin. Drinking alkaline Kangen Water® can help maintain glowing, smooth skin. Since it is important to maintain your skin's pH level between 5.0

and 6.0, we recommend spraying acidic water<sup>1</sup> on your skin at regular intervals throughout the day. During the winter, bathing in acidic water can help preserve the moisture of your skin. We also recommend that you eat foods and fruits that include high levels of vitamin C, A and E. Treating your skin with beauty water will let you enjoy life even more by giving you smooth and youthful skin.

#### <sup>1</sup>**Acidic water**

Acidic ionized water produced by electrolysis with a pH between 4.0 and 6.5. Its astringent effect is certified by the Japanese Ministry of Health, Labor and Welfare. Excellent for skin care.

9. [What is the proper method of Strong Kangen Water/Strong Acidic Water, and how long do they last?](#)  
Among the five types of water produced by LeveLuk, the two types for drinking (purified water/Kangen Water®) must be used fresh. Please keep these two types of water in the refrigerator for no more than 4-5 days and replace the water in your take-out bottle everyday. For water used for domestic purposes, including Acidic Water, Strong Acidic Water and Strong Kangen Water, less care is required, but we recommend changing your supply once a week. To store, please place the water in a lightproof container<sup>1</sup>, fill it to the very top to avoid unnecessary contact with air, and store it in a cool, dark place (the refrigerator is ideal).

#### <sup>1</sup>**Lightproof container**

Container that keeps light out.

10. [What is the proper amount/method of drinking Kangen Water®?](#)

There are no set rules regarding how to drink Kangen Water® or how much to consume.

11. [How do we begin drinking Kangen Water®?](#)

It is most common to begin by setting a low pH<sup>1</sup> level (between pH8 and pH9.0), and gradually increasing the amount of intake. After continuing regular intake for about two weeks, gradually adjust the pH level and amount of intake (between pH9.0-pH9.5) based on your bodily needs and physical condition. The Kangen Water® should be as fresh as possible.

For children or seniors, set the pH level at an even lower level upon starting, and gradually increase it as the body adjusts to the current pH level.

In the case of infants (until about a year old), since breast milk or milk is the only thing they consume, the intestinal movement is generally different from adults, and the use of Kangen Water® is not encouraged until the infant begins to consume more sophisticated foods. In any case, Kangen Water® should not be used to make powdered milk for infants.

#### <sup>1</sup>**pH**

The logarithm of the reciprocal of hydrogen-ion concentration in gram atoms per liter. It is used as a measure of the acidity or alkalinity of a solution on a scale of 0-14 (where 7 is neutral).

# Machine Related Questions

## 12. Why is the appliance leaking?

It is most likely that the ring (stopper) on the cartridge came off during transportation, or that you have forgotten to take off the O-ring<sup>1</sup> when replacing the cartridge. It is highly unlikely that the leaking has been caused by a mechanical fault in the appliance.

### <sup>1</sup>O-ring

Small, round rubber gasket that prevents leakage when connecting the various pipes to the appliance.

## 13. How do I use the spout stand?

Two types of water run through the LeveLuk machine, and Kangen Water® will be produced only when the two run at a fixed ratio. If the discharge hose is bent, or the stand is positioned higher than the bottom tip of the flexible pipe, acidic water cannot be produced properly. In turn, stretching the hose below the sink to collect water in a separate container will result in loss of Kangen Water®. In this case, please do not pull the spout stand to the bottom, but prepare a separate hose to collect water in the container. Please make it a daily habit to check the water using the pH testing solution and hydrogen bubbles.

## 14. How do you use the reset switch?

There is a square switch situated under the black cover on the front-left of the appliance. Please make sure to push this button (it should make a beeping sound) when you first set up the LeveLuk or when replacing the filter. This allows for the correct display on the monitor (liquid crystal display) of all the information stored in the LeveLuk microcomputer. This reset button must be pushed in order for information to be displayed on the LCD screen. It notifies the user when there is too much or too little water, sets off an alarm when heated water passes through by mistake, and informs you to monitor the water flow. By using the reset switch correctly on the LeveLuk, you insure the delivery of safe and healthy water.

## 15. How many years does the electrolysis cell remain effective?

The electrode plate in LeveLuk's electrolysis cell is thicker and larger than other companies' products. The appliance is designed this way in order to increase electrolysis capacity and durability. Another important reason is to guarantee the production of maximum volumes of water. The electrode plates are made of the very highest-quality titanium, plated with platinum. Needless to say, due to this choice of materials, the electrode plates are completely rustproof. The electrolysis cell is to a water production appliance what the engine generator is to a car. We can recommend our products with the utmost confidence because we use only the best materials. Our electrolysis cell and control (PCB)<sup>1</sup> secures a high ORP<sup>2</sup>, and produces safe, healthy and delicious water. The automatic cleaning mechanism ensures that the electrolysis cell is always clean, and it should last 15 years.

### <sup>1</sup>**Control PCB (Print Circuit Board)**

A board comprising print circuits that manage various data related to the appliance. Hi-tech components/condenser also built in.

### <sup>2</sup>**ORP (Oxidation Reduction Potential)**

Electrical potential needed to reduce or slow down rusting and decay (oxidization). This process is also known as deoxidization. ORP is measured in terms of negative mVs. The ideal ORP level for the human body is said to be between -150mV and -400mV.

#### 16. What should I do when I notice a built-up of clusters in my water?

Small amounts of minerals are found in unpurified water (tap water/sewage water). During electrolysis, minerals become concentrated on the minus side of the electrolysis circuit, causing clusters to attach to the electrode plate. Leveluk can remove the clusters by reversing the voltage, but sometimes these clusters fall off naturally. When you pour this water into a stainless container or glass, the clusters stick to the bottom and sides. It is difficult to remove these clusters by scraping with metallic objects, etc. Instead, please pour vinegar into the container and leave it for 12 to 15 hours. You could substitute citric acid<sup>1</sup> for vinegar if you like. These clusters are not harmful even if consumed, so please do not worry.

Furthermore, if you set the machine on beauty water (acidic water), and let the water run for two to three minutes, you can decrease the amount of minerals significantly. Please clean containers that you put Kangen Water® in at least once every three months by the above mentioned method.

### <sup>1</sup>**Citric acid**

Citric acid is extracted from apples. It has the ability to dissolve clusters of minerals such as Ca and Mg. An ideal and safe way of cleaning water production appliances is to circulate citric acid through the appliance.

#### 17. How is the machine cleaned?

Leveluk has an automatic cleaning system. The amount of minerals in the supply water, such as Ca and Mg can vary greatly, and mineral<sup>1</sup> clusters inevitably stick to the electrode plates. They can be broken off, however, easily by reversing the electric current (switching the +,-polarity). Mineral clusters attached to the electrode plate decrease the electrolysis capacity of the appliance, resulting in a failure to produce primary Kangen Water®. The amount of minerals attached to the electrolysis cell varies according to the quantity of minerals in the tap water.

Leveluk's automatic cleaning mechanism is activated for 20 seconds when continual electrolysis reaches 15 minutes. When using Leveluk in areas where the water has a high mineral content, change the setting to "beauty water" (2nd from bottom) and turn on the tap slightly so the water is running gently. This will reverse the electric current and remove the crystals in the electrolysis cell after 2-3 minutes. Changing

the setting to "beauty water" once a day for 30 seconds is another way to clean the electrolysis cell. The cleaning function is necessary to maximize the life span of the electrolysis cell.

### **<sup>1</sup>Minerals**

Ca (calcium), Mg (Magnesium), Na (Sodium), Ka (Potassium) and other nutrients found in food and water. Minerals found in water are said to be especially good for the health in optimum amounts.

18. [The upper flexible pipe leaks acidic water when set on beauty care water. How can I stop the leaking?](#)  
Before pouring water through the flexible pipe, you need to take off the scales<sup>1</sup> (mineral clusters) stuck to the electrode plate<sup>2</sup> by reversing the voltage<sup>3</sup>, that is, changing the plus and minus of the electric current. This is necessary for producing proper acidic water. By removing the scales and running acidic water through the flexible pipes even when you are not using acidic water, you can keep the electrode plate clean and increase its durability. Moreover, using the upper flexible pipe makes the appliance easier to use especially when washing your face or pouring water into a plastic bottle.

### **<sup>1</sup>Scales**

Ca, Mg, Na, Ka and other mineral clusters are produced when water is electrolyzed. These clusters are called scales and are not harmful even if consumed.

### **<sup>2</sup>Electrode plate**

A metal board that conducts electricity during electrolysis. It is made of titanium and plated in platinum. It has superb electrolysis capacity and high durability.

### **<sup>3</sup>Reversing the voltage**

In order to electrolyze water, the plus and minus of the direct currents must be clear. When mineral clusters get attached to the electrode plate, there is a need to reverse the plus and minus of the current to remove the clusters. This basically sets the appliance on a cleaning function, similar to when it is placed on the "beauty water" setting.

### [19. What if there's no cartridge replacement notice even after a year?](#)

The display screen on the LeveLuk will notify you when the total volume of water produced reaches 1,500 gallons. The microcomputer controls this notification mechanism, please make sure to press the reset switch to activate the microcomputer when you put in a new filter. The reset switch is located on the top right of the cartridge section (inside the black cover on the left). Please press it until it beeps. The microcomputer controls other information for the LeveLuk as well, which is why it is critical to remember to press the reset button.

### [20. What optional purification parts are available for the LeveLuk?](#)

We provide a variety of optional accessories to maximize the benefits of LeveLuk series.

- **Hoses for supplying and discharging water** - Although any length of your choice is available (in 40 inch units), shorter hoses are easier to use for this purpose. The hose offered by our company has special anti-bacterial<sup>1</sup> properties that distinguish them from general products.
- **Pre-filter** - Useful in the removal of foreign substances such as iron rust, dirt, and sand, especially when the original water supply is from a well. It can also clear lime and helps protect the appliance.

#### <sup>1</sup>Anti-bacterial coating

All the parts in the LeveLuk, but especially those that come in contact with the water in the process of filtering, have had anti-bacterial treatment to avoid any kind of contamination.

#### 21. What is the difference between LeveLuk's electrolysis cell and those of other companies?

Electrolysis of water requires high quality electrolysis plates, and the size, thickness, and number of the plates becomes crucial in maintaining durability. The "double cross line" method<sup>1</sup> used by other companies has the appliance's overall durability in mind. In these appliances, two small electrolysis cells are used in turn to provide resting time, but this limits the volume of water than can be produced at one time. LeveLuk on the other hand, has five or seven electrolysis plates, the largest number in the industry, and while maintaining durability via their large surface area and thickness, they allow the appliance to produce large volumes of water (maximum Kangen Water®: 0.8-2.0 gallons/minute).

Every function, such as supplying voltage according to switching of the pH setting and producing highly acidic water in the same electrolysis cell, is carefully monitored by the microcomputer. It ensures that the appliance can be used safely for a long period of time. We recommend that you produce "beauty water" once a day for at least three minutes to improve the appliance's durability.

#### <sup>1</sup>Double cross line method

Also referred to as the auto cross changer method. An electrolysis system where the appliance is equipped with two small electrolysis cells in order to enhance durability by alternating the cells with each water flow.

#### 22. How does the automatic draining system work?

LeveLuk is equipped with an automatic water-draining system that prevents contamination and proliferation of germs in residue water. The automatic water draining system is activated once the water stops. It takes approximately 30 seconds for all water in the electrolysis cell, water purification cartridge, and all channels to be drained through the hose (grey). Please note that the automatic water draining system is activated when the water level drops, and positioning the spout higher than the base of the appliance for any reason (pooling of acidic water in the tank, hanging the hose from a rack because of its length) may result in a failure to discharge residue water. Leaving water behind may cause problems with taste and smell. Please be sure to have the spout hose lower than the appliance before turning the tap off.

23. [The flexible pipe is not allowing for the smooth flow of water. What should I do?](#)

When the original tap water supply is high in mineral, a large amount of crystals are formed in the electrolysis cell. If this progresses, chunks of crystals can become stuck in the net before the flexible pipe, obstructing the water outflow. In order to remove this clog, poke the area with a piece of wire and blow air into the LeveLuk from the spout. Please remove the flexible pipe from LeveLuk when cleaning in this manner.

24. [What are the changes to the Kangen Water® outlet as a result of switching water production mode?](#)

Electrolyzing water produces Kangen Water® (alkaline) on the negative pole and acidic water on the positive pole. LeveLuk is designed so that the flexible pipe attached to the top is connected to the negative electrolysis cell, while the discharge (gray) hose, attached to the base of the LeveLuk, is connected to the positive electrolysis cell.

For this reason, Kangen Water® and strong Kangen Water® comes out of the flexible pipe, and acidic water and strong acidic water comes out of the discharge hose. Of the four production modes, when the appliance is set on the "beauty water" mode, the electric current is reversed, as it is done for cleaning, so acidic water comes out the flexible pipe and Kangen Water® comes out the discharge hose. This is the only time the waters are discharged on the opposite ends. Since the acidic mode reverses polarity, it has the effect of breaking off calcium crystals attached to the negative pole and can be used as a manual cleaning mode.

25. [What is special about LeveLuk's strong acidic water production system?](#)

Traditionally, strong acidic water could only be produced with large devices for institutional use (at the time, strong acidic water was called hyper acidic water). We thought that it would be highly beneficial for people's hygiene if they could produce and use strong acidic water in their homes. The LeveLuk makes it possible to produce fairly large quantities of strong acidic water and strong Kangen Water® at home.

## Misc Questions

26. [What is the oxidation-reduction potential \(ORP\)?](#)

The oxidation reduction potential<sup>1</sup> is the electrical potential needed to reduce or slow down oxidation such as rusting. Kangen Water® must have a negative ORP in order to be considered good, especially for drinking.

ORP is the strength to bond with active oxygen<sup>2</sup> reducing power, and can be measured through electronic designs in the hardware. Although a negative value is desirable for deoxidization power, the actual value varies from region to region. For example, in Osaka city, tap water records an ORP of +580-600mV, but

after using LevelLuk, the ORP becomes pH9.5 and records the ideal from -150mV to -400mV. When the original water supply's ORP increases, the ORP of Kangen Water® moves in direct proportion. On the Japanese archipelago, LevelLuk is capable of producing water with negative levels of ORP at pH9.5 even where original water supply marks the highest positive levels of ORP.

### <sup>1</sup>**Oxidation-reduction potential (ORP)**

Electrical potential needed to reduce or slow down rusting and decay (oxidization). This process is also known as deoxidization. ODR is measured in terms of negative mVs. The ideal ODR level for the human body is said to be between -150mV and -400mV.

### <sup>2</sup>**Active oxygen**

Also known as free radicals. Medically it is known to enter the body when one's daily rhythm of life or diet goes astray when under stress. It is the type of oxygen that causes illness and aging. Maintaining a daily rhythm will help keep this oxygen from entering your body!

### 27. What is "calcium addition"?

In Japan, the water in areas toward the Sea of Japan is more acidic than in areas closer to the Pacific Ocean. Although acidic water, which has an astringent effect<sup>1</sup>, is good for the skin if used for everyday chores and facial treatment, it is not suitable for drinking. Even when this water is electrolyzed, it does not produce water with standard pH levels. This water is much better for consumption than unpurified water. The ORP measuring device is the best way to see this for your self, in which case there is a need to add calcium glycerophosphate<sup>2</sup> to the water. By doing so, pH levels can be increased in intervals of 0.5. We recommend that people living in regions on the side of the Sea of Japan add calcium to their water.

### <sup>1</sup>**Astringent effect**

Acidic water contains a small amount of chlorine ions and has an astringent effect. This water is good for toning your skin.

### <sup>2</sup>**Calcium glycerophosphate (Calcium powder)**

If the pH level does not increase even after electrolyzing water (especially when using well water or tap water in areas toward the Sea of Japan), adding calcium powder will increase the pH level.

### 28. Why doesn't Kangen Water® turn the pH testing solution blue (purple)?

Kangen Water® produces a yellow/green color (neutral reading) in pH testing solutions even if it made on the setting for pH 9.5. This phenomenon is often observed in areas where well water is used. Even water that tests neutral has been through the electrolytic process and has the benefits. This is caused by the carbon dioxide in well water, which is produced from decomposing organic matter. Carbon dioxide readily dissolves in water, making it acidic. Water with carbon dioxide can be electrolyzed, however, the carbon dioxide is neutralized during the process. Therefore the water tests neutral on the pH scale. Driving out the carbon dioxide from Kangen Water® will result in the Kangen Water® expressing blue in pH test liquid.

When measuring the pH using a pH testing solution, place a few drops in the flask before pouring in freshly made Kangen Water®. There is carbon dioxide in your Kangen Water® if the color turns blue initially, but eventually turns yellow.

### 29. Some white bits are floating in the Kangen Water®. What are they?

Your original tap water supply always contains some minerals. Especially on the pacific side of Japan, including Okinawa, the land is more alkaline and minerals crystallize readily onto the electrolysis plates and some break off into the water. Although they look like foreign substances, there is no harm in drinking these mineral clusters. In order to prevent the mineral clusters from falling into the water, we recommend changing the setting to "acidic water mode" (run reverse voltage) and increase the pressure and quantity of water once or twice a day for 3-4 minutes to clean out the appliance. Because of the caustic lime<sup>1</sup> situation in Okinawa, we recommend people living in this area to use the pre-filter<sup>2</sup> (sold separately).

Depending on the situation, it may be appropriate to use both of filters together. When mineral clusters stick to aluminum or anodized aluminum<sup>3</sup>, it turns brown and becomes difficult to take off. Please refrain from using aluminum or anodized aluminum pans and pots as much as possible.

#### **<sup>1</sup>Caustic lime**

Okinawa is said to exist on top of coral. As a result, the water in Okinawa has a high mineral content.

#### **<sup>2</sup>Pre-filter**

A filter used in situations where the original water supply contains a high percentage of well water or chemical substance. The transparent filter makes it easy to tell when the cartridge needs changing.

#### **<sup>3</sup>Anodized aluminum**

An aluminum alloy often used in household pots.

### 30. What is the relationship between the oxidation-reduction potential (ORP) and pH?

The oxidization reduction potential is the electrical potential needed to reduce or slow down rusting and decay (oxidization.) The ORP<sup>1</sup> also represents the reduction capacity to attract active oxygen. The optimum levels for the human body is between -150– -400mV. The ORP is also closely related to pH levels. When the pH increases, the ORP also increases. It is also possible to increase ORP through electrolysis. The value depends greatly on the original water supply. An ideal ORP may not be achieved if the original water has a pH lower than 7.0. Please make sure to examine the properties of your original water, for failure to do so may lead to inexplicable errors.

#### **<sup>1</sup>ORP (Oxidation-Reduction Potential)**

Electrical potential needed to reduce or slow down rusting and decay (oxidization). This process is also known as deoxidization. ODR is measures in terms of negative mVs. The ideal ODR level for the human body is said to be between -150mV and -400mV.

### 31. What is the white fogginess in Kangen Water®?

The white fogginess apparent in Kangen Water® is simply a result of hydrogen gas being released through electrolysis, and does not pose a problem. If you rest the glass for a while the white fogginess should disappear.

Research focused on dissolved hydrogen released through electrolysis of water was presented at The Japan Functional Water Association Meeting<sup>1</sup> in late December of 2002. It reported that Kangen Water® is effective in controlling the oxidation of lipids in the body. It also reported that dissolved hydrogen<sup>2</sup> present in the colloidal<sup>3</sup> state has a higher activity level than active hydrogen<sup>4</sup> produced at the instance of reaction. Based on this report, the need for broader data collection and further scientific analysis was recognized.

#### <sup>1</sup>The Japan Functional Water Association Meeting

The Japan Functional Water Association Workshop was established on September 13, 2002. In December of the same year, the first Japan Functional Water Association Academic Convention was held in Tokyo.

#### <sup>2</sup>Dissolved hydrogen

Most commonly measured using a diaphragm polarograph-type dissolved hydrogen electrode. The solubility of dissolved hydrogen is about 1.5mg/L.

#### <sup>3</sup>Colloidal

Low molecular weight (colloidal) particles dispersed in liquid. Each particle is between 1m and 0.1. The majority of substances that make up organisms are colloidal and have complex movements.

#### <sup>4</sup>Active hydrogen

Professor Sanetaka SHIRAHATA of Kyushu University announced the "active hydrogen deoxidized water theory" on removing the active hydrogen in Kangen water. Related academic circles are debating whether or not active hydrogen exists in a stable state, given that it is an unstable free radical.

### 32. Can LeveLuk be used overseas?

LeveLuk is made to be used in USA. When using LeveLuk in other countries, it must be adjusted to the particular voltage (110V-240V) and water quality of the country. Since there are few countries where you can drink tap water straight from the tap, and many countries where the water has extremely high calcium content, we recommend selecting a filter that suits the country. Many laws must be taken into consideration for exporting goods, but individual use overseas is not a problem.

### 33. Are there any cautions regarding the use of LeveLuk in cold regions?

LeveLuk is designed for use anywhere, but cold districts especially must be aware how to freeze-proof the device during the winter. When you turn off the water, the LeveLuk activates the automatic water draining

system and drains the remaining water through the gray hose, thereby ensuring that no water is left in the appliance. Although there have not yet been any reports of accidents or breakdowns caused by freezing, if acidic water is left in the tank intentionally by lifting the hose or if the hose is positioned higher than the bottom of the LevelLuk due to space constraints, the automatic water draining system will not operate, and the remaining water may freeze, leading to accidents. Be sure to keep the hose lower than the base of the LevelLuk when turning off the water flow.