

The Energy Regions of Pico-Extended Particle Water with Minus Ions Affect Plant-Growth, Car-driver's Expiration and Nuclear Transmutation

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Abstract

Water is a common substance but necessary to living organs. Generally, the researcher focuses on the water molecule H₂O, resulting in solubility with something compound, and considers three phases: liquid, solid, vapour and macroscopical viewpoints are popular meteorology, flood, etc. As a result, most studies of H₂O are just a cluster. However, we notice the dissociation of hydrogen bonds. Here, we introduce the water leading to air change in a car for people's health and how much energy the water has. Furthermore, we propose how to obtain better water for plants and animals, including humans, which means nature on the earth.

Keywords: dissociated water; air in the car; exhausted gases

Introduction

There are many macroscopic waters studied for a long history on the earth except for chemical compounds like solubility with other substances, pressure and temperature dependence, purification technologies, etc. For instance, here is the floating water bridge between two beakers under a high electric voltage like 15kV [1-3]. Furthermore, significant issues are a long, dry summer since the 21st century [4]. Arctic ice and Antarctica ice are melting, causing rising sea levels and submerging low-lying islands.

However, we discuss and propose microscopic standpoints to the water, which is supposed to be the dissociation of hydrogen bonds. We reported many types of water research for agriculture, medicine and physics, including engineering.

We use ordinary tap water as the starting material. The MICA means minimal catalyst water fabricated by high tap water pressure, like 3 MPa (K. Hatanaka patent [5]). The high-pressurized water can transfer information of the water to other substances, and we call the developed product the activated car here. We define an ordinary car before setting up an activated car. We call the activated car a MICA car. The MICA-car possesses putting the activated muffler on the pipe.

The test issues are both minus ion and plus ion in the exhausted gases, and these ions of driver's expiration in the car are essential subjects to study.

We reduce specific information type of the water is the terahertz (THz) emission and reducing function [6]. In this sense, another study is the research of terahertz vibration-rotation-tunneling spectroscopy of the water, which is H₂O and D₂O trimer [7].

One is the theoretical research indicating a quantum mechanics treatment of the water molecule in which the perturbation method is applied to the interaction of the atoms in the water molecule [8].

In the medical field, one is a unique study reporting the health benefits of reduced water discussed with microscopical ideas like an active hydrogen atom. They treat the water with electrochemical preparation of reduced water using the platinum plate [9].

We reported theoretical protection of the COVID-19 virus [10] and disease recovery with some pieces of evidence [11] employing the water.

Here, we discuss our basic stance in researching water relates to the proton and electron in the hydrogen atom, and we assume the MICA water and SIGN water (Spin Information Gauge-field Network) involve the pico-extended particle, which we name infoton [12]. The water is macroscopically the same, so-called the reduced water.

Therefore, this research aims to judge the existence of minus and plus ions and identify the results leading to various fields for human health and plant growth on our earth phenomenon.

Method

We can fabricate the activated water by high-pressurizing tap water (more than 30 MPa), and sometimes we employ 100 MPa.

We test the performance of an ordinary status car first. The car type has three litter engines, and its total mileage is 58,000 km.

There are four steps for the air change analysis. The first one is thirty minutes idling for an ordinary car (we call a standard vehicle). In the second step, we drive the regular car for two hours (72 km) and measure the driver's expiration to know the plus and minus ions before activation with MICA goods.

We can activate a muffler by immersing it in the MICA water for three days. We call it the MICA goods. The test items are air changes of plus and minus ions during idling and two-hour driving. In the third step, we put the activated muffler on the pipe (we call a car MICA-car).

The third step is idling the MICA car for thirty minutes in the first step; then, we drive the MICA car in the second step, analyze the air change in the fourth step, and check the driver's expiration. We measure the air change in the vehicle with the ion tester, KST-900 (Kobe Dempa Co. Ltd).

Results and Discussion

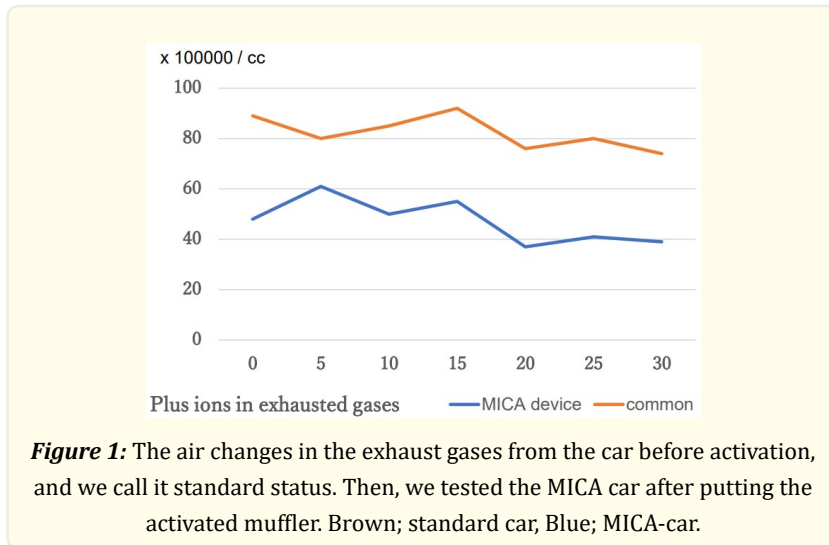
Air changes in the exhausted gases from car

The infoton may help the air change because of reductive characteristics like non-oxidized status; namely, the infoton possesses reduction potential due to its $\langle H^+ \sim e^- \rangle$ constitution. Furthermore, we calculated the total energy of dinitrogen (N₂) in activated and nonactivated states by considering the molecule's spin as a function of the N-N bond length. We use the *ab initio* calculation called the DV-X α orbital calculation method for this kind of electronic structure ---Discrete Variational X α potential [13].

Nitrogen atom possesses the electron configuration 2P³ of active outer orbital, and we can activate N₂ in the air. Furthermore, nitrogen helps to deoxidize, keeping the foods fresh in the zip rock films by the activated films [14].

Figure 1 shows the air in exhausted gases; one is before putting an activated muffler, and the other is after the muffler's activation.

The activated air goes to an engine room, working effectively because of active nitrogen. Therefore, exhausted gases do not contain many plus ions in the MICA-car; meanwhile, the standard car possesses more than twice, as shown in Fig.1.



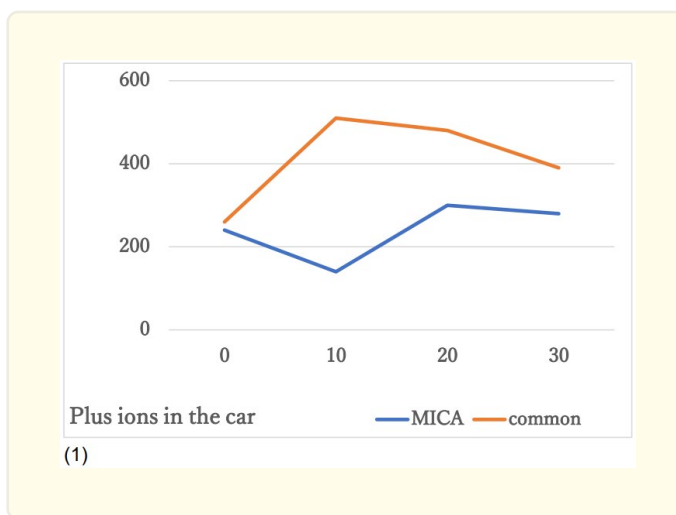
We studied this type of research in the report shown to reduce CO₂, CO, and NOx previously [9].

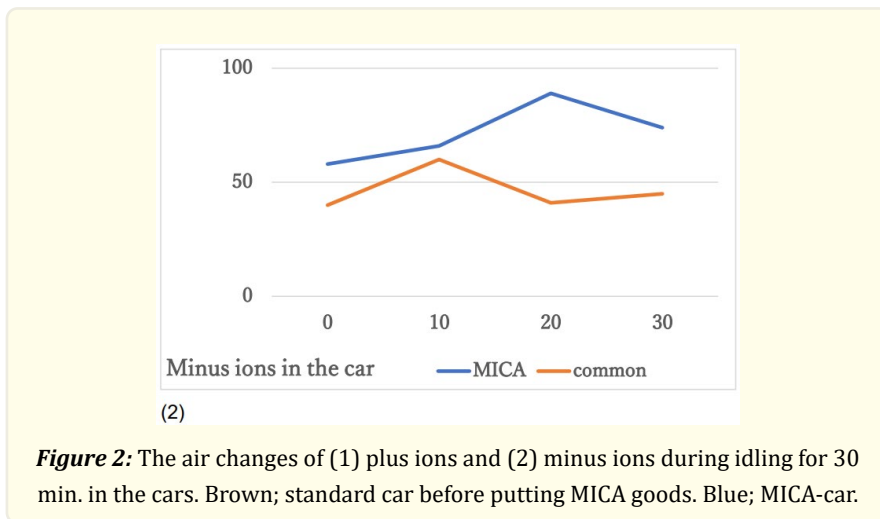
Air changes in a car

We analyze the plus and minus ions inside the car during idling for thirty minutes, as shown in Fig. 2 (1) and (2). The former depicts the plus ions, and the latter offers the minus ions.

Remarkably, the plus ions are much less in the standard car than in the MICA car. Meanwhile, the minus ions are opposite as shown in Fig.2 (2).

We consider the MICA muffler can reduce the air; the nitrogen may activate, leading to fewer plus ions because the infoton, $\langle H^+ \sim e^- \rangle$ acts on 2S²2P³ in the nitrogen atomic configuration.





Air changes in the expiration of the driver

We measure the plus and minus ions in the expiration of a driver during idling and after two hours of driving. Table 1 indicates both ions of the driver.

Therefore, the driver's expiration may increase the minus ion by approximately 36%.

The increased minus ions in the MICA car means fresh air circulation, activating air.

	<i>Plus ion</i>	<i>Minus ion</i>
In idling for thirty minutes	2869.5 / cc	83.8 / cc
After two-hour driving with MICA goods	2637.3 / cc	113.8 / cc

Table 1

In MICA-car, plus ions are less than minus ions, meaning the reductive atmosphere; we can consider that the human body under many minus ions is better than in plus ions, although balance is essential for living organs.

The increase of minus ions from the exhaust gases and expiration are two merits of putting MICA goods.

Energy of infoton

There is much research on water in scientific society. Mainly, people study the hydrogen bond itself, the viewpoints of kinetics in liquid water, and the energy redistribution of the hydrogen bond network [15].

Furthermore, a unique study is associated with the hydrogen bond angle/distance of potential energy in the quantum water dimer [16].

We previously reported the region of infoton's energy based on the permittivity of the MICA water closing from the terahertz region to Far-Infrared electromagnetic wave [6, 17].

Table 2 indicates the infoton energy region, and we consider the level in the far-infrared, which is close to human body temperature. The textbook suggests 5.0 kcal / mol (≈ 0.22 eV) as the energy in the hydrogen bond of two water molecules [18]. This level is the ter-

ahertz ~ Far-Infrared region. Therefore, some reports relate to hydrogen bond network rearrangements in liquid water, in which they discuss a cluster possessing very high energy, like 530~544 eV [19].

Furthermore, we regard an electron oscillating in $\langle H^+ \sim e \rangle$ like $\langle H^+ \sim \sim e \rangle$ and exists stably [20].

Electromagnetic wave	wavelength	frequency	application
Microwave	$1 \times 10^{-1} \text{ m}$	$3 \times 10^9 \text{ Hz}$	electro microwave, ETC, a meteorological satellite,
THz	$1 \times 10^{-3} \text{ m}$ $\sim 20 \mu \text{ m}$	$30 \times 10^{12} \text{ Hz}$ $1 \times 10^{12} \text{ Hz}$	Millimeter-wave radar Hydrogen-bond in COOH H ₂ O-molecule rotation
Far-Infrared	$30 \mu \text{ m}$	$1 \times 10^{13} \text{ Hz}$	Infoton energy around here 0.04 eV~0.5 eV Hydrogen-bond in water
Infrared	$10 \mu \text{ m}$	$3 \times 10^{13} \text{ Hz}$	Plant-growth
Near-Infrared	$3 \mu \text{ m}$	100 THz	0.4~1.6 eV
Visible lights		Higher energy	

Table 2: Essential energy regions attractive in the physics of water.

Overall pictures of possible scenes of the SIGN water-function

The dissociated hydrogen bond of water may expand the variety of themes in science and daily life. The following section is associated with a bird's-eye view of the area relating to the water shown in Fig.3.

We depict relationships between nature and human activities in (x, y, z) coordinate; x and y axis indicates the relationship of nature, human and health including animal. Our exhausted materials depict generated from exhausted gas, pipe drainage and nuclear wastes in z axis.

We indicate the activities on earth but abbreviate a space here.

I want to say here is how we are involved with nature and coexistence with it.

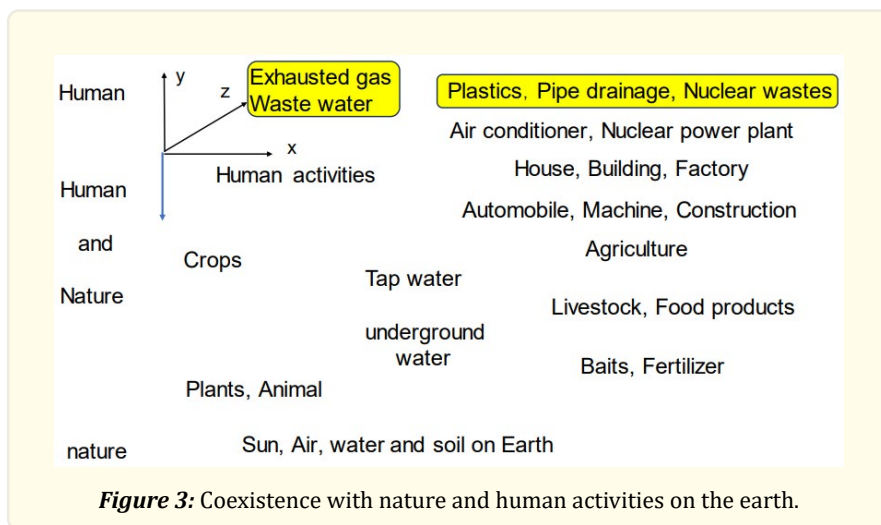
As a result, we violate the nature together with the development of civilization.

Furthermore, we solve how to treat and handle the wasted materials by technology development like recycle and up-cycle of plastics particularly.

The nuclear wastes are peculiar. Because human being can't control atomic power due to a spontaneous decay of nuclear substances by our present technology; namely, radioactive materials usually decay emitting radiation like gamma, alfa, and beta-radiation always.

Even daily-life trash or garbage, we should not employ an incinerator, so an electric melting furnace (~1400°C) is better, leading to melted slag which we may reuse and without CO₂ gas. We may reuse the small particle slugs for concrete and asphalt.

Regarding nuclear waste, we have not found the final processing except for burying it underground or on the seabed. But a concrete will form cracks for more than thirty years from where radiation may leak-out, and damage sea organs and human finally.



The SIGN water can improve and solve problems of various fields in Fig. 3.

We have published some of them involving human health in medical series.

Nuclear transmutation with infoton

We have proposed the nuclear transmutation in the manuscripts in 2015 [21] and [22] since 2013 [23] based on the Fukushima disaster in 3.11 2011, when we repeated the radioactive reduction from the contaminated soils and withered with MICA and SIGN water.

In our theory, the energy and the mass balance are maintained following the β disintegration with the neutron, which is close to the infoton's mass.

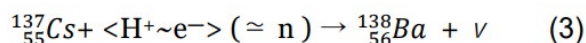
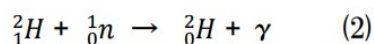
Furthermore, we confirmed the transmutation of the seawater with the same theory of the SING water experimentally, which we have followed now.

We developed that the functions of the infoton, $\langle H^+ \sim e^- \rangle$, are primarily necessary to the transmutation along with their charges' balance [24]. As infoton's formula shows, a charge is another critical parameter for transmutation [25].

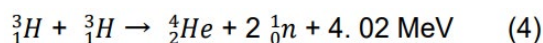
We think thoroughly about the infoton which is supposed to be the constitution of the sun, namely;

$$\langle H^+ \sim e^- \rangle + \langle H^+ \sim e^- \rangle \rightarrow 2 \langle H^+ \sim e^- \rangle \quad (1)$$

The following reactions show involving neutrons;



"($\simeq n$)" means only 0.08 % different from $\langle H^+ \sim e^- \rangle$ in weight (Ref. 7)



As regarding to the nuclear transformation, the infoton may obtain the radiation from the cesium nuclear energy (approx. 8MeV) performing the kinetic energy assumed ten percent of light velocity for the reaction with the cesium nucleus.

Conclusion

We noticed the dissociated hydrogen bond water with infoton containing the pico-extended particle. The results activate the air in the car to work an engine effectively and increase minus ions in an exhausted gas and less of the plus ions. Besides, we found the air change of minus ion increase in the expiration of the driver. The infoton works for the nuclear transmutation like the sun. Furthermore, radioactive cesium changes to stable barium with the infoton.

Here, we introduced the water leading to people's health and how much energy the water has. Finally, we propose how to obtain better water for plants and animals, including humans, which means nature on the earth.

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