

## Improvement of Mental Disorders with pico-extended Hydrogen-like Elementary Particle

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### Abstract

We report various research studies on minimal catalyst (MICA) water and another spin information gauge network (SIGN) water from 2009 to the present. The theme expands our bodies, plants, animals, and other substances like concrete, vinyl bags, fibre, LED light, and even the atmosphere. Furthermore, we also reported the nuclear changes from radioactive caesium to stable barium in the contaminated soils in the Fukushima accident (2011.3.11). Relating to our body, we previously discussed cerebral infarction and skin care in terms of electrodynamics. Our water science and technology are talking about an essential property of water relevant to dissociating hydrogen bonds in water. We fabricated SIGN water under the pressure of more than 100MPa rather than 3MPa for MICA water. The difference may be the abundance rate of the elementary-like particle; namely, we assume the amount of the particle is three times in SIGN water than in MICA water, although it is the same works, and both emit far-infrared through terahertz. Here, we focus on a mental disorder as a resounding theme in our brain.

### Introduction

There are many brain diseases and a wide range of causes. Epidemiology of mental disorders has been mainly discussed in Japan since the spread of the infectious coronavirus, reporting 7.9% in 2013 before the coronavirus, but 17.3% in 2020 in Japan, and 3.6 times in the U.S.A., and 9.7 times in England according to the OECD. The main reasons in Japan are stress and unemployment.

Here, we don't report epidemiology and discuss the disorder and its remedy in terms of biochemical physics.

One of the increasing diseases is Alzheimer's type dementia, which is much more than the age of sixty-five, although it is said in the younger age (around forty) as well. The disease decreases the neuro-cell slowly and has been discussed relating to the functions of  $\beta$ -amyloid. We previously discussed this disease from the chemical bonds in the neurotransmitters (amino acids). Another disease of bipolar disorder is famous and many in this field, in which manic and depression appear one by one. In the former, they feel exhilarated with many talks pathologically, and in the latter, they feel blue or deleted; many cases recover in one or two weeks.

In medical processes, they employ an optical topography [1]. They use nuclear magnetic imaging (MRI) processing with a nuclear magnetic resonance. A subject receives a strong magnetic field (approx. two tesla) by radio frequency roughly between the upper limit of audio frequencies and the lower limit of infrared frequencies [2-4]. Then, a nuclear spin from the instrument resonances with the hydrogen atom of a human body, and the instrument receives an emitting electromagnetic wave.

Those apparatuses can help estimate a specific mechanism of mental diseases. Furthermore, we discussed cerebral infarction, which is known to be the reason for arterial obstruction in the brain. Doctors can estimate and judge the causes of the obstruction, like lifestyle, food, and thrombus. However, it seems to be difficult to associate with blood.

However, a mental disorder is quite complex to judge what the conditions of a client are and how bad, etc., and their environments are different from a home, company's structure or organization associated with a human relationship depending on men and women. We believe there seem to be complications, even with psychiatrists.

Here, we discuss mental disorders in terms of biochemical physics standpoints resulting in causes and improvement with pico-extended hydrogen-like elementary particles. We depict  $\langle H^+ \sim e^- \rangle$ , which electron oscillates to access a proton and to go away without becoming each ion.

## Method

We developed the activated MICA water (Minimal Catalysis), usually fabricated at 30 MPa [5].

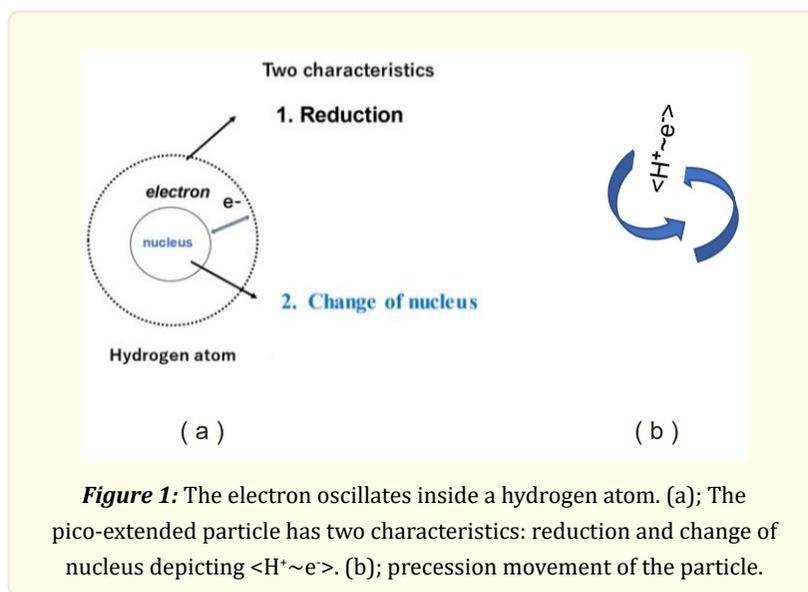
We have researched the water, which is supposed to be less than one molecule, considering that a cluster of water formed with hydrogen bonds may dissociate with high pressure.

Therefore, the water reported here is like an extended elementary particle in physics [6]. The method for our health is to drink the water possessing Pico-extended hydrogen-like elementary particle.

## Discussion

### *The basic concept of the pico-extended hydrogen*

We notice water and hydrogen as the most familiar substances and discuss the model of pico-extended particle water fabricated after the dissociation of hydrogen bonds of the usual water. The water is presumed to involve the particle depicted  $\langle H^+ \sim e^- \rangle$ , neither a hydrogen atom nor a proton or electron. They exist stably for an extended period, transferring its information shown in Fig.1. We reported the two properties of the water mechanisms and applications of chemical reduction [7, 8], and decrease of radioactivity, [9-11]. The essential idea of the water is shown in Fig.1.



Precession resembles the earth, which rotates itself like a spin, and the rotation axis swings like drawing a circle. Then, the particle can travel in any direction.

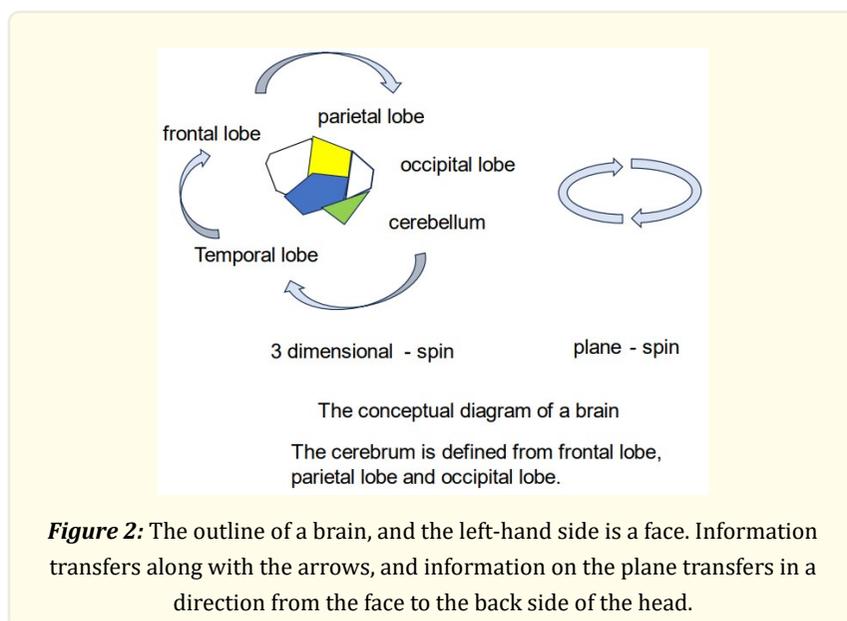
### Outline of a brain region

Although the “mesolimbic system” is a broad region, we can represent it more understandably, as shown in Figure 2. We consider the information transfer in a brain with a spin.

We regard our information from eyes may move around in three dimensional- spin, and may transfer toward the eyes to the back of the head instead of not communicating to the top of the head. We name it plane-spin; for example, our eyes look at the surprising realization, and then our reaction appears in the eyes instantaneously.

The various information transfers in a brain are said to be electrical signals. We go back to the history of the bioelectrical developments by L. Galvani and A. Volta in the 1800<sup>th</sup> [12]. A. L. Hodgkin and A. F. Huxley discovered the ion channel with an action potential generated in cell membranes by Na<sup>+</sup> and K<sup>+</sup> ion channels in the 1950s [13-15]. Thus, any substances in bioelectrical theory have related after discovering cell membranes [16, 17].

We correlated it to an analogical aspect of a brain and electromagnetic circuit, which is a circuit constituting reactance, condenser, and resistance.



Regarding basic electricity, a similar circuit is the Wheatstone Bridge, which is also familiar in a physics textbook. The Wheatstone Bridge constitutes a reactance (coil) condenser (C) developed for measuring resistance in the 1800s [15].

We regard our thinking, feeling, and consciousness by ourselves or after talking to someone, and our brain functions with two kinds of spin, as in Fig. 2.

According to speciality books, the frontal lobe plays roles in thinking, willingness, and creativity. A parietal lobe performs a skin feeling like pain and temperature, then transfers the information to the next occipital lobe and cerebellum, resulting in body action.

Most neurons of more than ten billion exist in the cerebellum, and the essential features of the cerebellum are integral to perception and motor function.

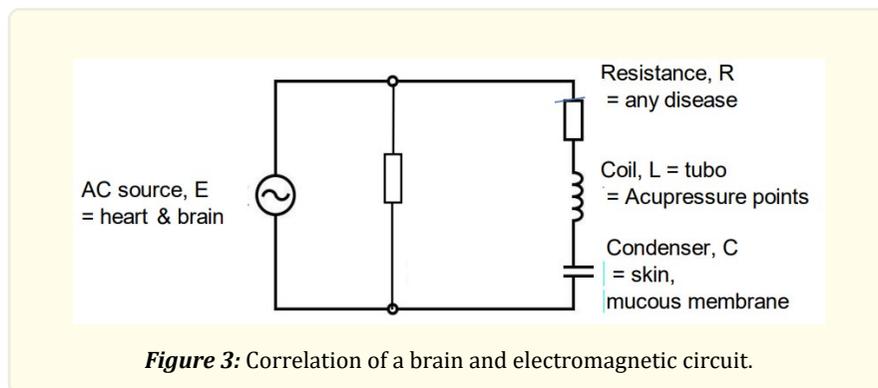
Furthermore, the cerebellum controls balance, myotonic and voluntary muscle. The occipital lobe involves hormones in the inter-brain, and the cerebellum lobe works for a somatosensory system, which feels with skin, muscles, joints, and inner organs. Figure 2 doesn't describe the midbrain, which is almost the brain's centre and connects to the medulla oblongata.

However, the interbrain is a sensory nerve for the relay centre and autonomic nervous system, except for olfaction. Therefore, it is more complicated since we must consider the midbrain with three-dimensional spin and plane-spin. Those feelings also may generate mental diseases, but we limit them to only some of them here.

### *Analogical idea to the electrical magnetism and a brain*

The circuits introduced by the researchers above do not directly relate to our electromagnetic circuit, and the primary constituent for electricity is our electromagnetic circuit connecting to our body function.

We regard a somewhat simplified map structure to our body mechanism illustrated in Fig.3. For example; we reported the improvement of cerebral Infarction through Injecting electrons onto acupuncture points with a needle [21]. The mechanism seems to be a coil and condenser because the coil works to generate a magnetic field like a tubo, which is an acupuncture point in oriental medicine terminology. A condenser galvanizes in an alternating current (AC) and stores electrons in a directing current (DC). Our skin is said to possess 30~40 % water, which means storage of static electricity. That is why we feel "electricity" when we touch a metal under a dry atmosphere in winter, and then electrons conduct between our skin and the metal.



We suppose eyes as a sensor reacting with a light beside the above circuit. We focus on the heart (brain) as an electrical source here.

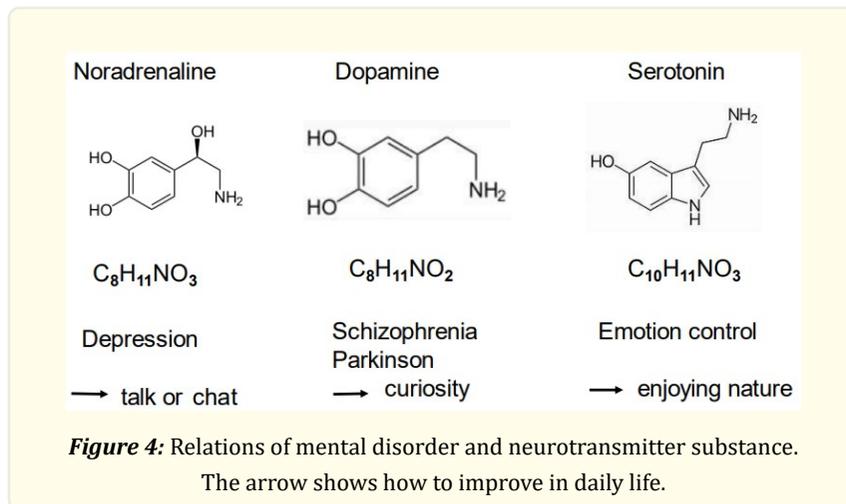
### *How to improve a mental disease with the water*

The US Food and Drug Administration (FDA) said it is "on the cusp of approving the first tumour-infiltrating lymphocyte (TIL) therapy". TIL therapy was first shown to shrink tumours 35 years ago, but commercialization has been slow" [24].

TIL is the therapy to take out immune cells like lymphocytes, cultivate them, and return them to the body. Those lymphocyte cells recognize cancer and are attached to kill the cancer cells, so it is not necessary to teach the cells an antigen [25, 26]. The TLC seems more complex than cancer, and the tumour is more complicated.

A mental disease is the most difficult to judge and remedy because of various conditions in the brain, as shown in Fig. 2.

Now, we want to arrange the metal disorder as the relationship with the substance of neurotransmitters illustrated in Fig. 4.

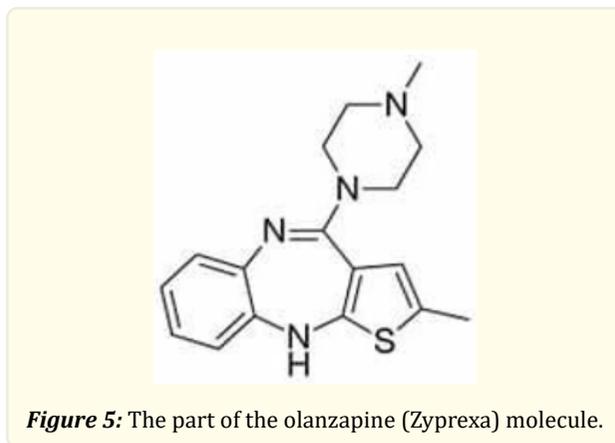


The symptoms of schizophrenia are hallucinations, delusions, loss of integration, and suddenly making a loud voice, and those are positive symptoms. On the other hand, the negative symptoms are not being interested in surroundings and declining willingness and concentration [29, 30].

An antipsychotic medication has been studied and prescribed, which medicine is olanzapine (Fig. 5), and has not been cleared in the mechanism [31]. This medicine is said to work for antagonists blocking serotonin and dopamine.

However, I think it should be discussed the mechanisms.

Let's discuss the effects of olanzapine in a sense of biochemical physics. The Zyprexa's molecular weight is 284 g/mole, which is two times more than the neurotransmitter amino acids, and a sulfur atom is a key; namely, the electron configuration of the atom is  $3s^2$  and  $3p^2$  in the outer orbital, meaning sulfur wants to take some electrons from anything resulting in the formation of an oxidized condition in the system. The C-S bonding strength in the molecule is the weakest, at 2.8 eV [30]. We can't expect good results from this medicine to remedy a mental disorder. Bipolar disorder is treated as well.



The effects of medicine to cure a mental disorder may generate Parkinson's disease, which involves a Levy body associating with a particular protein, and the protein is said to create neurotransmitters positively.

The dopamine receptor mainly exists in the frontal lobe; the substance usually goes back to separating from the receptor after finishing the transfer of the information. However, the substance cannot separate from the receptor, which may be an oxidized condition. We regard oxidization as a kind of illness, like food ruins.

The MICA or SIGN water have the pico-particle possessing reduction in chemistry besides nucleus change in physics described in Fig.1. The reduction is significant for a disease involving a mental disorder. People drink the water one litre per day (including cooking, bathing, etc.) at least, although I drink two liters every day.

The water involving  $\langle H^+ \sim e^- \rangle$  reduces the oxidation condition, improving disease. We have experienced some evidence that drinking water can cure or improve the bad condition of a body [23]. We suggest a person who has a mental problem who feels it by oneself (age of 30 to 45) drink the water this time.

## Conclusion

The theme here is to improve the mental disorder of a man aged 30 to the middle of 40s with the MICA or the SIGN water. They drink water, 500ml to 1L, in daily life. We reported cerebral infarction improvement previously. But it is the first time to study a mental disorder. The water involves the pico-sized water depicted in  $\langle H^+ \sim e^- \rangle$ , like an elementary particle, meaning easy absorption to our body. Furthermore, the reduction function improves the mental disorder, meaning it cures the oxidized condition in the brain.

## Acknowledgement

I would like to appreciate the younger people talking about their conditions frankly on the phone and meeting each other during tea time.

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