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The First Scientific Journal in  
T-Consciousness Research

**Examination of the Effects of Taheri  
Consciousness Fields on the  
Physicochemical Properties of Water in  
Pure and Normal Saline Forms**



Mohammad Ali Taheri  
Originator of T-Consciousness Theory  
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# Editorial

**Mohammad Ali Taheri**  
Founder of T-Consciousness Theory



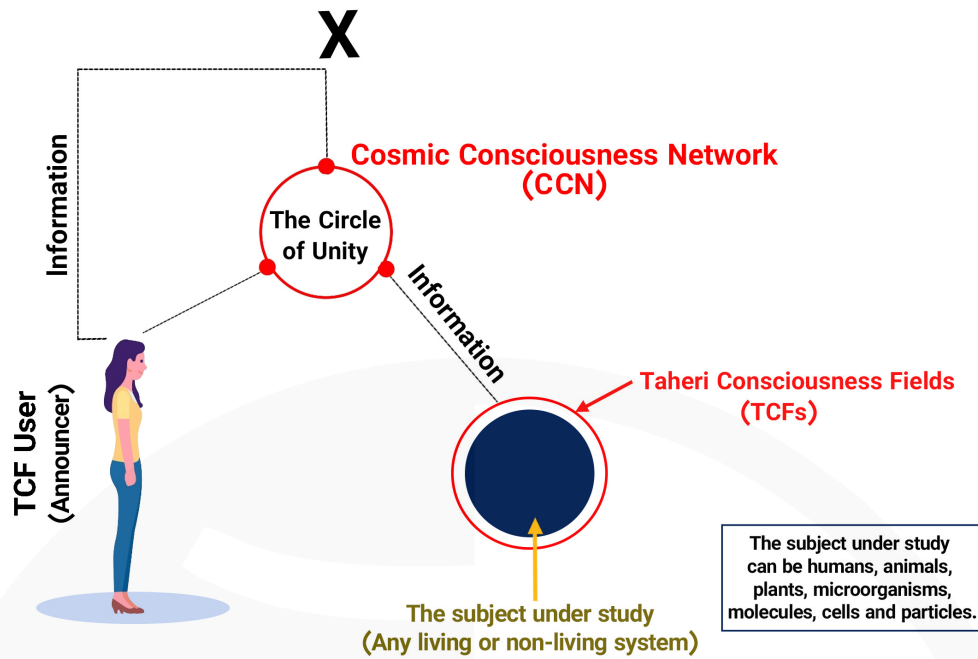
## Examination of the Effects of Taheri Consciousness Fields on the Physicochemical Properties of Water in Pure and Normal Saline Forms

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Water molecules alone make up over three-fourths of the Earth's surface, with about 97% being salty and 3% fresh. Different scientific theories regarding the origin of life recognize water as a fundamental factor. The water, in a sense, is regarded as the life matrix in its terrestrial form. Approximately 60% to 75% of the human body weight is composed of water and losing just 4% of the body's water can lead to dehydration, and 15% loss can be fatal. This vital dependency on water extends across all forms of life, highlighting its essential role in survival. The ubiquitous presence of water molecules in the material structure of the Earth and their vital roles inherently stem from the physical structure and functionality of these molecules. This makes the study of their behavior consistently of paramount importance in the scientific realm.

Scientific investigations into the effect of TCFs on various forms of matter and living organisms have, to date, established that these non-material and non-energetic fields, with a specific and meaningful effect, can induce measurable and quantitative changes in the studied system. Among these, water molecules, owing to their ubiquitous role in the living and non-living world, emerge as suitable candidates for illustrating the effects of TCFs. Therefore, in this issue, besides examining the effects of these fields on various properties of pure water molecules, a 0.9% sodium chloride aqueous solution, commonly known as normal saline, has also been utilized. This solution is considered the most abundant aqueous solution in nature and a medicinal compound for humans. These studies investigate some of the physical and chemical properties of water, such as pH, temperature, electrical conductivity, optical absorption, and light scattering, under the treatment of TCFs in comparison to the control group.

The aim of designing these experiments, in addition to providing evidence for the effects of TCFs, has been to explore various properties of water in order to find a cost-effective and convenient way to detect the effects of these fields. It is evident that the accurate and precise representation of the effects of TCFs, using the simplest possible methods and tools can introduce the scientific community to these fields in a more comprehensive and effective manner initially by providing tangible evidence of TCFs' existence, and subsequently by acquainting them with novel and valuable applications. Hopefully, the unbiased and impartial scientific community worldwide will increasingly pursue this path and its lofty goal.



**Schematic picture of the application of Taheri Consciousness Fields (TCFs).** The effects of TCFs are initiated through the connection to the Cosmic Consciousness Network (CCN), which is established via the Faradarmangar's (announcer) mind. There are variable TCFs that are a subset of this intelligent network and with applying them specific information is transmitted. This way, the subject under study, comprising living organisms or non-living matters, becomes exposed to the mentioned information. It is important to note that TCFs and proposed information by Taheri do not possess material or energetic entities, making direct quantitative measurement impossible. However, their effects can be recorded through the design of diverse experiments. To accomplish this, obtained data regarding the behaviors or other traits of the subjects under study is collected while under the influence of these fields. These observations are then compared with control groups (those not subjected to TCF treatment), and the results are subsequently analyzed statistically and reported.

# Considerations of This Issue

## 1. Common Introduction

### *1-1 T-Consciousness and the New Science of Sciencefact*

In the present century, the nature of Consciousness and its place in science has received much attention. Many philosophical and scientific theories have been presented in this field. In the 1980s, Mohammad Ali Taheri introduced new fields of non-material and non-energetic nature, which are called T-Consciousness Fields (TCFs). In this view, T-Consciousness along with matter and energy are the three main elements of the universe and it is different from the other two elements. According to this theory, there are various TCFs with different functions that are a subset of the Cosmic Internet Network called the Cosmic Consciousness Network (CCN).

The main difference between the theory of T-Consciousness Fields and other theoretical concepts presented in relation to consciousness is the application and practical use of TCFs. These fields can be applied to all living and non-living organisms, such as humans, plants, animals, microorganisms, materials, etc. The new science of Sciencefact was introduced in 2020 by Mohammad Ali Taheri, the founder of the Erfan-e-Keyhani-e-Halgheh school, as one of the subgroups of this school. The name "Sciencefact" was chosen because it uses scientific research to confirm the existence of T-Consciousness as a "fact".

Although common science only considers the study of matter and energy, Sciencefact investigates the effects of T-Consciousness Fields (non-material and non-energetic) on matter and energy and all their manifestations (such as humans, animals, plants, microorganisms, cells, materials, etc.). By conducting repeatable laboratory research in various fields of science, Sciencefact has emerged as

a common ground between them and uses this capability to investigate "T-Consciousness" and "T-Consciousness Fields" resulting from it. The influence of the T-Consciousness Fields begins with the connection (Etesal) between the Cosmic Consciousness Network as the Whole Consciousness and the studied subject as a component. The connection is established by the mind of the Faradarmangar (a person who has been trained and assigned the T-Consciousness Fields). The human mind has an intermediary role (Announcer) which plays a part by fleeting attention to the subject of study and then the main achievement obtained as a result of the effects of the TCFs. These fields cannot be directly measured by science, but it is possible to investigate their effects on various subjects through reproducible laboratory experiments (1).

### *1-2 Taheri's research methodology of T-Consciousness Fields*

The research methodology in the study of T-Consciousness has been founded on the process of *Assumption, Argument, and Proof*, in which the basic Assumption is: The Cosmos was formed by a third element called T-Consciousness that is different from matter and energy.

The Argument: The existence of TCFs can be demonstrated by their effects on matter and energy (e.g., humans, animals, plants, microorganisms, cells, materials, etc.)

The Proof is the scientific verification of the effects of TCFs on matter and energy (according to the Argument) through various reproducible scientific experiments.

Accordingly, to investigate and verify the existence, effects and mechanisms of TCFs, the following five research phases (Phases

0 through 4), and the aims of each phase are outlined below.

### ***1-3 Study phases in Sciencefact***

Accordingly, to investigate and verify the existence, effects and mechanisms of TCFs, the following five research phases (Phases 0 through 4), and the aims of each phase are outlined below.

Phase-0 studies aim to prove the existence of TCFs by observing their effects. The nature of T-Consciousness and what it is will not be addressed in this phase. Phase-1 explores the varied effects of different TCFs. Phase-2 examines the reason behind the varied effects of these fields. Phase-3 investigates the mechanism of TCFs effects on matter and energy. Finally, Phase-4 draws significant conclusions, particularly with regard to the mind and memory of matter and their relation to the T-Consciousness, etc.

## **2. General concepts**

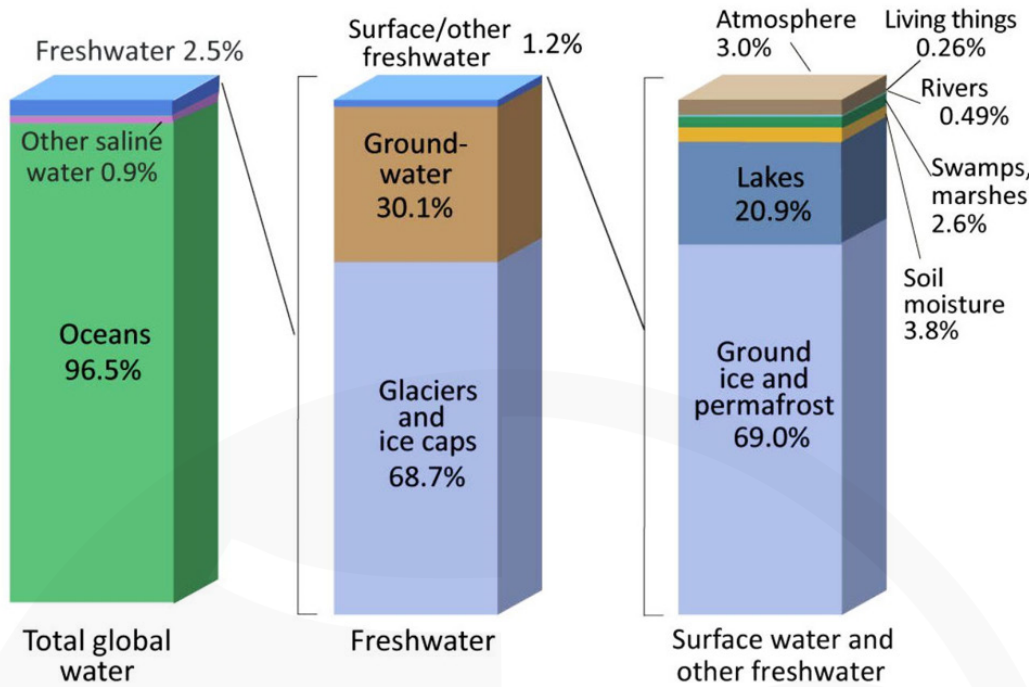
*Pure water:* Pure water is water that has been mechanically filtered or processed, its impurities have been removed and it has become suitable for specific uses. Distilled water used to be the most common form of purified water. However, in recent years, water is mostly purified by other processes such as capacitive deionization, reverse osmosis, carbon filter, microfiltration, ultrafiltration, ultraviolet oxidation, or electrodeionization (2).

Pure water has many applications, mainly in the production of medicines, laboratories and science and engineering industries. Pure water is a poor conductor. The conductivity of seawater is typically 5 S/m, the conductivity of drinking water is typically in the range of 5-50 mS/m, while the conductivity of highly purified water can be as high as 5.5  $\mu\text{S}/\text{m}$  (0.055  $\mu\text{S}/\text{cm}$ ) (3). Pure water is an approximation of only water molecule, which is used in double distillation form in this research.

*Normal saline:* Normal saline solution is a mixture of sodium chloride and water (0.9 grams of NaCl in 100 milliliters of distilled water). Normal saline is a crystalloid liquid. By definition, it is an aqueous solution of electrolytes and other hydrophilic molecules.

Normal saline contains electrolytes (sodium and chloride ions) that disintegrate in the solution. The main feature of this solution is its isotonic nature compared to human blood serum plasma, which creates a lower osmotic pressure compared to other types of liquids (for example, hypertonic, and hypotonic) (4).

*Water pH:* It is a measure of the acidity/alkalinity of the water and is reported in "logarithmic units". Its range is from 0 to 14, and pH 7 is equivalent to water neutrality. A pH less than 7 indicates acidity, and a pH greater than 7 indicates alkalinity. The pH is a measure of the relative amount of free hydrogen and hydroxyl ions in water. Water with more free hydrogen ions is acidic, while water with more free hydroxyl ions is alkaline. Because chemicals in water can affect pH, it is an important indicator of chemically changing water (5).



Most of the Earth is made up of salty ocean water (96.5%); In fact, about 97% of the Earth's surface water is in the oceans. The minimum amount of fresh groundwater (2.5%) and its categories in surface water, underground water, and glaciers are shown separately in the figure above.

<https://earthhow.com/how-much-water-is-on-earth>

*Electrical conductivity (EC):* the solution EC shows the capability of that solution for the transmission of electricity. The more the

concentration of ions in the solution, the higher the EC. The EC of different solutions are shown in Figure 1.

### Examples: Conductivity of Liquids

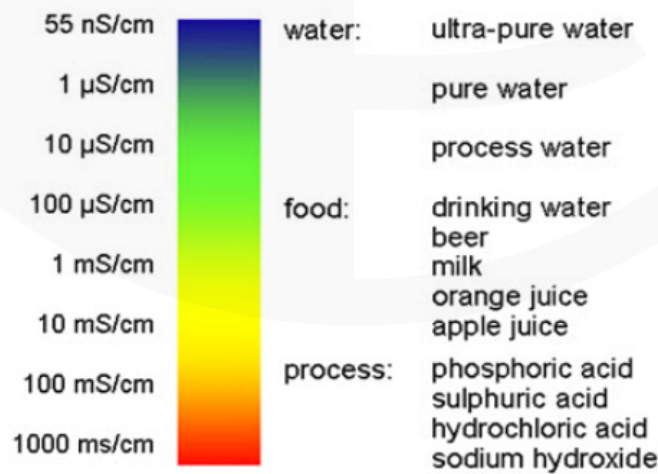


Figure 1- Electrical conductivity of different solutions.

Mineral ions such as chlorides, alkalis, carbonates, and dissolved salts play the main role in the transfer of electric current. Metals also help to increase EC due to having a large number of free electrons. It should also be noted that electrical conductivity depends on temperature and changes in temperature cause changes in the value of EC (7).

In addition to the direct relationship with temperature, the electrical conductivity Mineral Mineral ions such as chlorides, alkalis, carbonates, and dissolved salts play the main role in the transfer of electric current. Metals also help to increase EC due to having a large number of free electrons. It should also be noted that electrical conductivity depends on temperature and changes in temperature cause changes in the value of EC (7).

In addition to the direct relationship with temperature, the electrical conductivity of water is proportional to the concentration of Total Dissolved Solids (TDS) in water and is a

function of the ionic strength of water (number of cations and anions in water). Electrical conductivity is measured with the unit of micro Siemens per centimeter. Electrical conductivity and concentration of TDS are not related one-to-one. But in dilute solutions like natural water, the relationship between these two factors is as follows (8):

$$\text{TDS (mg/L)} = \text{EC } (\mu\text{S/cm}) \times K$$

TDS refers to all ions present in water, which indicates the total concentration of solid impurities dissolved in water. K is the conversion coefficient of electrical conductivity. The unit of measurement of TDS is milligrams per liter, which is also referred to as parts per million (ppm). We know that each liter is equal to one million milligrams, so each milligram per liter is one part per million. The conversion coefficient of electrical conductivity to the concentration of all dissolved solids in reference water and two famous salts are given in Table 1.

Table 1. Conversion coefficient of electrical conductivity to the concentration of total dissolved solids in fresh water, KCl and NaCl\*.

Conductivity at 25 °C	TDS KCl		TDS NaCl		TDS 442	
	ppm Value	Factor	ppm Value	Factor	ppm Value	Factor
84 $\mu\text{S}$	40.38	0.5048	38.04	0.4755	50.50	0.6563
447 $\mu\text{S}$	225.6	0.5047	215.5	0.4822	300.0	0.6712
1413 $\mu\text{S}$	744.7	0.5270	702.1	0.4969	1000	0.7078
1500 $\mu\text{S}$	757.1	0.5047	737.1	0.4914	1050	0.7000
8974 $\mu\text{S}$	5101	0.5685	4487	0.5000	7608	0.8478
12,880 $\mu\text{S}$	7447	0.5782	7230	0.5613	11,367	0.8825
15,000 $\mu\text{S}$	8759	0.5839	8532	0.5688	13,455	0.8970
80 ms	52,168	0.6521	48,384	0.6048	79,688	0.9961

\* TDS 442 – This solution best represents natural freshwater. The 442 standard was nearly 50 years ago and it is still the world's most accepted standard. TDS NaCl – This sodium chloride solution best represents seawater, brackish water, or other high saline solution. KCl TDS – This potassium chloride solution is a very stable salt and is an international calibration standard for conductivity measurements (8).

## Optical Spectroscopy/Solution Optical Absorption:

Optical spectroscopy is a tool that is widely used today for quantitative and qualitative tests. Among the various methods of optical spectroscopy, colorimetric or absorbance methods are widely used in clinical and research laboratories. The principles of this method are based on the combination of the substance to be measured with a specific reagent and color creation.

The effect of the created color on the amount of light that has been absorbed or the amount of light that has passed is a measure that is used to calculate the amount of the desired substance compared to the standard solution (9).

According to the Beer-Lambert law, with the increase in the concentration of a substance that is in the path of light, the amount of light absorption in a certain wavelength increases and the amount of transmitted light decreases (10):

$$A = \log\left(\frac{I_0}{I}\right) = \epsilon \iota C$$

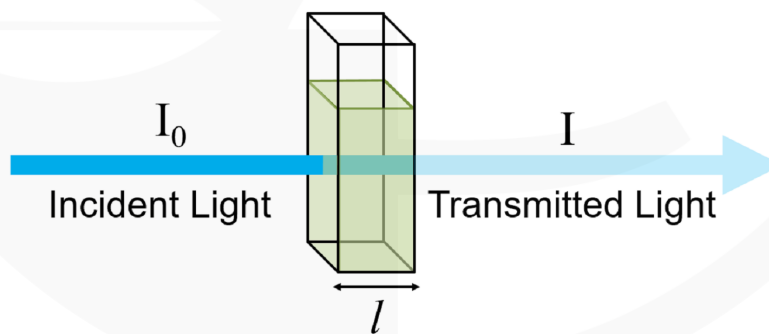


Figure 2- Schematic of the basis of optical absorbance and parameters in Beer-Lambert law.

Where  $A$  is the amount of light absorption,  $I_0$  is the intensity of light emitted,  $I$  is the intensity of light passing through the sample,  $\epsilon$  is the molar absorption coefficient of the desired substance,  $\iota$  is the length of light absorption, and  $C$  is the concentration of the desired substance. The passage of light through the sample and the parameters effective in measuring the amount of absorption are shown in Figure 2.

It should be noted that the Beer-Lambert law is valid when the diffused light is monochromatic and the concentration of the dissolved substance is in the linear range; this means that the amount of absorption increases linearly with the increase of the concentration of the solvent. If the concentration rises above a limit that the relationship is not linear, it cannot be used to calculate the parameters in the Beer-Lambert formula. In other words, this law is only successful in describing the absorption behavior of dilute solutions and is usually not valid in concentrations greater than 0.01 M due to molecular aggregation.

## Refractometry and refractometric index determination of solutions:

Plato was the philosopher who first described observations that were important for the subsequent understanding of the index of refraction and the law of refraction related to it; He observed that the paddle of the boat looked normal in the air, while they appeared to be twisted underwater.

The first special demonstration of light refraction was invented by the Iranian mathematician and physicist Ibn Sahl in the 10<sup>th</sup> century (11). He investigated the refraction of light in his treatises on burning mirrors and burning glasses, and through this work, he is considered the discoverer of the law of refraction. However, his findings were forgotten and not noticed again until six centuries later. Subsequently, Professor Willebrord Snell van Royen formulated a new version of the law of failure in 1621. His findings on the refraction of light at the interface of two transparent media with different refractive indices paved the way for the invention of the refractometer. Ernst Abe subsequently presented his refractometer to the scientific community in 1872.

Abe used refractometers to examine balsam and resin, as well as for immersion fluids needed in the production of microscopes. His invention is still used in educational, research, industrial and pharmaceutical fields today. Nowadays, digital refractometers are used for detailed studies. They use Light-Emitting Diode (LED) light sources, prisms, and Charged Coupled Device (CCD) sensors (12). The calculation of the refractive index is based on measuring the refractive index of light. The refractive index is the amount of bending of a light beam when passing from one medium to another medium. If  $i$  is the angle of incidence of a ray in space (the angle between the incoming beam and the perpendicular to the surface of a medium, which is called normal) and  $r$  is the angle of refraction (the angle between the beam in the medium and the normal). The refractive index  $n$  is defined as the ratio of the sine of the angle of incidence to the sine of the angle of refraction (13). These angles are shown in Figure 3.

$$n = \frac{\sin i}{\sin r}$$

The index of refraction is also equal to the speed of light  $c$  of a given wavelength in vacuum divided by the speed  $v$  in a material.

$$n = c/v$$

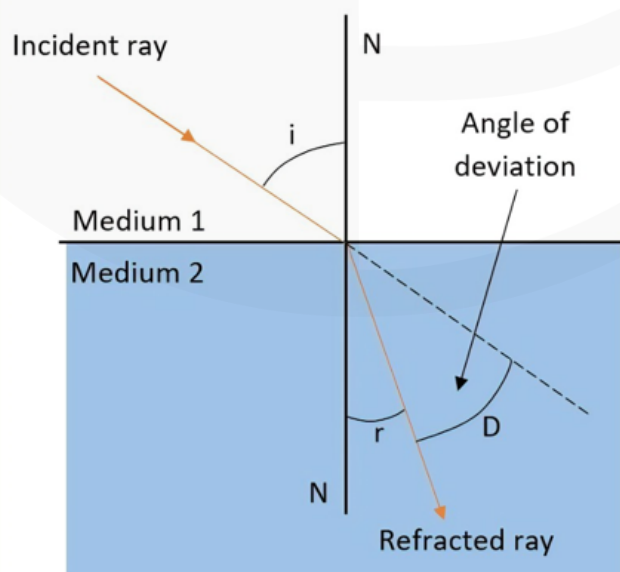


Figure 3. The refractive index of light passing from vacuum to material medium.

### 3- Methods

#### 3.1 Using T-Consciousness Fields

The samples (subjects under study) were under the influence of T-Consciousness Fields, according to the specified protocol available on the website of the research management of the T-Consciousness Fields. The request to connect to the Cosmic Consciousness Network for applying the T-Consciousness Fields can be placed through the COSMOintel website under the “Assign Announcement” menu. This access is complimentary for everyone.

To experience T-Consciousness Fields and conduct research in this field, researchers can register on this website at any time. Precise details of the experiment must be provided to the research centre, for example, the number and name of the samples must be specified. These studies were conducted in a double-blind manner, so the experts did not know the theory of T-Consciousness Fields. In addition, the person who initiated the TCFs application was not familiar with the details of this research. Double-blindness is an important standard that is common in scientific experiments in the field of medicine and psychology, which include theoretical and practical tests.

The T-Consciousness Fields applied in the studies of this issue, apart from the two studies of physicochemical properties of water, which were only the TCF type 2, were TCF types 1, 2, and 3. Based on Taheri's theory of Consciousness, the effect of TCF1 is to optimize the subject under study based on the laws of the ecosystem. To apply TCF2, a detailed “Announcement” is made by the Announcer, according to the known rules of the desired field and introduced by the relevant expert. The function of TCF3 is to remove negative and destructive factors affecting the behavior of the sample to adapt to its optimal conditions.

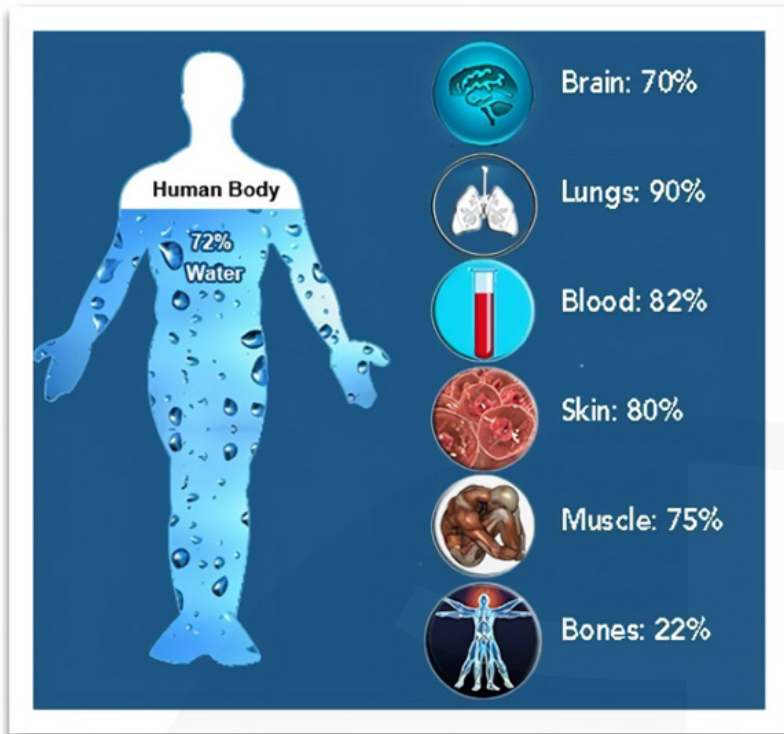
#### 3.2 Details of tests, materials, and equipment

used:

- These tests were carried out in the reference laboratories of the Food and Drug Organization.
- The temperature of the laboratory was 22.7 degrees Celsius and the humidity was 21%.
- Measurement of pH and temperature of pure water and normal saline (0.9%): according to the standard water and wastewater measurement method No. 2550B and 4500-H\*B, respectively
- Measuring the hardness of pure water and normal saline (0.9%): according to the standard method for measuring water and wastewater No. 2340C
- Measurement of electrical conductivity of pure water and normal saline (0.9%): according to the standard method of measuring water and wastewater No. 2510B
- Measurement of dissolved oxygen in pure water and normal saline (0.9%): according to the standard method of measuring water and wastewater No. 4500-OG
- Measurement of the amount of chlorine ion in normal saline (0.9%): according to the standard method for measuring water and wastewater No. 4500-Cl-B
- Optical absorption measurement: Carry eclipse spectrophotometer from Varian (Australia); A range of 200-800 nm and a speed of 1 nm per second
- Refractometric index measurement: SCHMIDT HAENSCH ATR-L refractometer; Accuracy: 0.00002 refractive index

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The percentage of water that makes up some organs of the human body. The range of changes is between 20-90%, and on average, 70% of the weight of the human body and each of its cells is composed of water.

Balonov, M. I., & Zhesko, T. V. (1989). Soderzhanie vody v tkaniakh i kletkakh tkaneĭ mlekopitaiushchikh [The water content in mammalian tissues and cells]. *Fiziologicheskii zhurnal SSSR imeni I. M. Sechenova*, 75(7), 963–969.

# Analysis of Temperature, pH, and Electrical Conductivity of Water in Response to Taheri Consciousness Field 2

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## Abstract

Water, as the most abundant molecule on Earth's surface and a vital component of living organisms, has always been the subject of investigation and analysis in the scientific community regarding its physicochemical properties and changes resulting from environmental variables. In previous studies on the effects of T-Consciousness Fields, changes in the pH and temperature of water as a result of exposure to these fields have been investigated. In this study, in addition to these two parameters, changes in the electrical conductivity of water molecules under the influence of T-Consciousness Field 2 have been examined, with the aim of finding a parameter of water that is more sensitive and responsive to T-Consciousness Fields. According to the results of this research throughout 8, 24, and 48 hours, changes in pH in the sample and control groups showed an increase, and temperature changes showed a decrease. Furthermore, changes in the electrical conductivity of water under the influence of T-Consciousness Field 2 were significant. To complement the current study, the examination of the levels of oxygen and carbon dioxide gases in pure water under the exposure of T-Consciousness Field 2 is on the agenda of the authors.

**Keywords:** Pure Water, pH, Temperature, Electrical Conductivity, T-Consciousness Fields

## Introduction

The physical properties of water depend on its state (solid, liquid, or gas), purity, and temperature. Some of these properties include:

1. *Conductivity*: The ability of water to conduct electrical current, which depends on the concentration of salts and minerals dissolved in water. Highly deionized water has a conductivity of around 0.05  $\mu\text{S}/\text{cm}$  at 25 degrees Celsius, while seawater has a conductivity of about 50  $\text{mS}/\text{cm}$ . Water conductivity increases with temperature (1).

2. *Temperature*: It measures the average kinetic energy of water molecules (2). Water freezes at 0 degrees Celsius and boils at 100 degrees Celsius at standard atmospheric pressure. Water's temperature affects many of its other properties, such as density, viscosity, specific heat, and solubility (3).

3. *pH*: It measures the acidity or alkalinity of water, ranging from 0 (very acidic) to 14 (very alkaline), with 7 being neutral. The pH of pure water at 25 degrees Celsius is 7, but it can vary depending on the presence of dissolved substances like carbon dioxide, which lowers the pH (4).

Investigating changes in each of these properties under different treatments and in different conditions is one of the ways to study the changes in the material or energy conditions of the system under study. After the initial investigation of the effects of T-Consciousness Fields on the temperature and pH of pure water (5), in this study, the property of electrical conductivity of water is also examined alongside two other properties.

## Method

In all experiments, the laboratory temperature was 22.7 degrees Celsius, and the humidity was 21%. Also, in all measurements, shaking (agitating) the sample and control before the test was avoided, and sampling was done from

the intermediate layers of the containers. In this study, we have 3 controls and 3 samples (under the influence of T-Consciousness Field 2).

The values of the mentioned properties were recorded during five measurements at the following time intervals within 48 hours, under constant and identical conditions: *Time zero*: Before starting the treatment. *Time one*: 4 hours after treatment. *Time two*: 8 hours after treatment. *Time three*: 24 hours after treatment. *Time four*: 48 hours after treatment.

## Results and Discussion

Figure 1. shows changes in the values of physical properties of water at different times in this research.

As evident in Figure 1, the changes in temperature, as well as the changes in pH, each occur separately in the control and pure water samples, concurrently with each other. Although the changes in pH in the two final time points in the sample exposed to the T-Consciousness Field show an increasing trend compared to the control, the observed difference is not statistically significant. The increasing trend of pH indicates a reduction in the number of factors contributing to water acidity in the vicinity of air, which is mainly carbon dioxide in the sample. In general, the two parameters, pH and temperature, in the sample and control set of this study change inversely with each other.

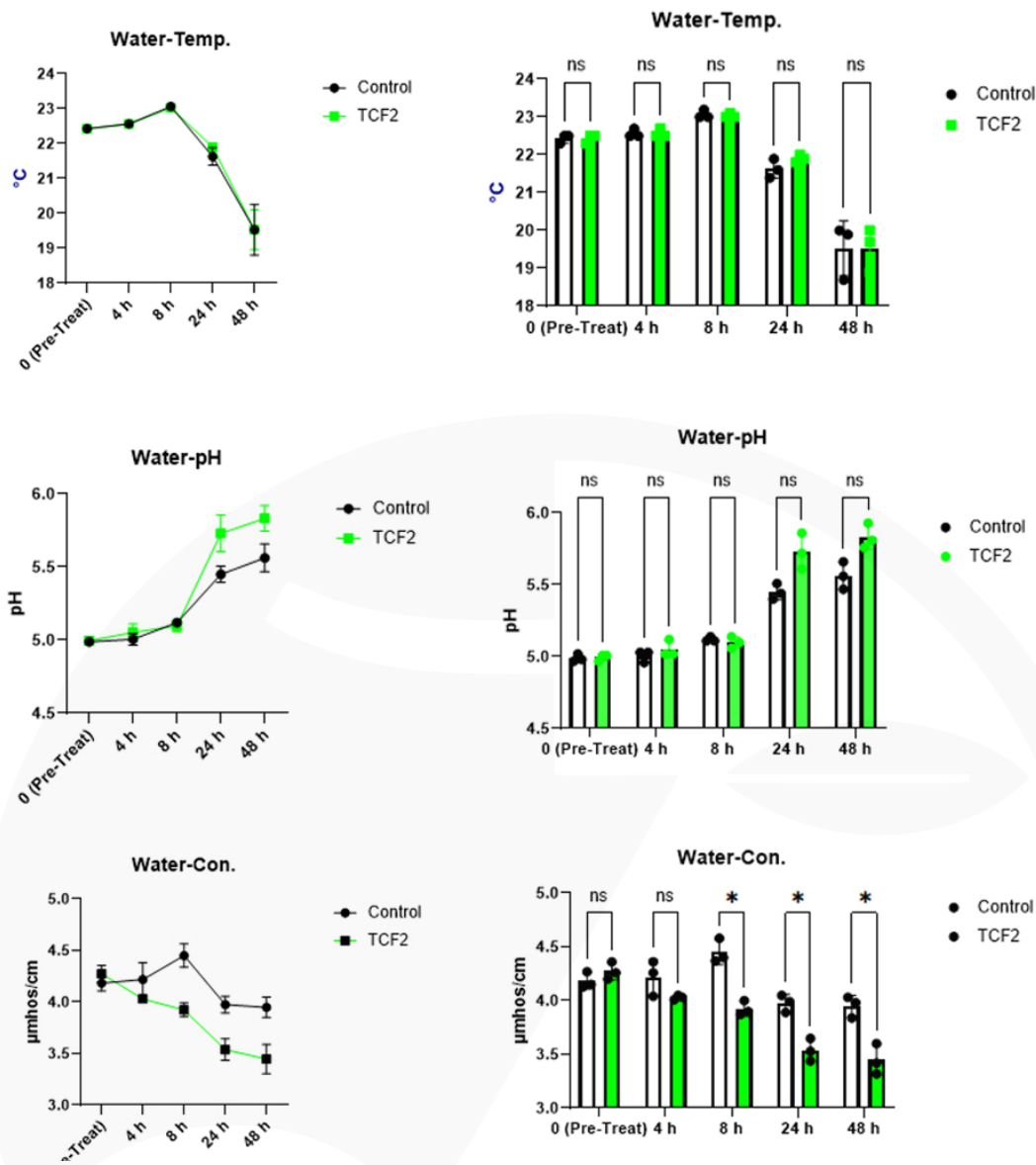


Figure 1. Changes in pH, temperature, and electrical conductivity in pure water (sample and control) at different times of this research

On the other hand, the electrical conductivity of water molecules in the control group exhibits a fluctuating trend of slight increase and decrease. In contrast, in the sample, the electrical conductivity follows the mission of T-Consciousness Field 2 and maintains its decreasing trend until the final hours of the study. At the 48-hour mark, a decrease of approximately 17% in electrical conductivity is observed in the sample compared to the control set. Considering the predominant role of carbon dioxide in creating electrical conductivity in pure water, the result suggests a reduction in the solubility of carbon dioxide in water under the influence of T-Consciousness Fields, which

aligns with the increasing pH trend over time. Given the minor role of solutes in increasing the entropy of the dissolved system, the decrease in electrical conductivity of the water of the sample compared to the control, indicates a decrease in entropy in the sample under the influence of T-Consciousness Fields.

It is evident that the occurrence of the mentioned processes in the system under study, which is exposed to non-material and non-energetic T-Consciousness Fields, will not be possible except by providing the necessary energy for them, and when comparing the sample and control, we see that in practice it will not have

any source other than T-Consciousness Fields. This type of energy provided by TCFs has been named as Waveless Hidden Energy (WHE) by Taheri. Measuring the levels of dissolved gases

in water, including oxygen and carbon dioxide, will significantly contribute to the validation and analysis of the above results and is on the authors' agenda.

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# Investigation of Temperature, pH, and Electrical Conductivity of Normal Saline under Taheri Consciousness Field 2 Treatment

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## Abstract

In the studies conducted by other researchers, it has been established that the solvation of solutes into water leads to changes in its physical properties, including the boiling and freezing points, indicating the influence of solutes on the physicochemical properties of pure water. In studies on the effects of T-Consciousness Fields on water, it is important to investigate the structure of the water solution since we seek to determine the degree and duration of its influence. On the other hand, one of the well-known and globally recognized medicinal solutions involving water, with valuable biological properties, readily available in pharmaceutical standards, and the most abundant form of water on Earth, is normal saline. In this research, the influence of T-Consciousness Field 2 (TCF2), as the applied field with a specific mission, on the properties of normal saline, e.g., a decrease in electrical conductivity has been studied. According to the results obtained from this research, the trend of temperature changes in normal saline in the control and sample is similar to the temperature of pure water under the influence of TCF2. However, the changes in their pH values vary with time, showing oscillations in both the sample and control of normal saline. Furthermore, the electrical conductivity in the control and sample decreases, but with a steeper slope, reaching approximately a 33% reduction in the sample, according to the mission of T-Consciousness Fields applied in this study. The investigation of other physical properties of normal saline under the treatment of T-Consciousness Field 2 is on the authors' agenda.

**Keywords:** Normal Saline, Pure Water, Physical Properties, Taheri Consciousness Fields

## Introduction

Continuing from previous studies on the effects of T-Consciousness Fields on pure water, in this research, we turned our attention to a well-known, standardized, and globally accessible solution with a significant biological value called "normal saline" and studied the physical properties of the aqueous solution. Fluid therapy is an essential component of the clinical management of patients, which is administered in colloidal and crystalloid forms (1). The most commonly used colloid worldwide is normal saline, which is used in the management and treatment of conditions such as hypovolemia (e.g., shock), metabolic alkalosis, fluid loss, and mild sodium depletion (2). A 0.9% concentration of isotonic sodium chloride is the preferred choice for intravenous replacement of body electrolytes. According to the United States Pharmacopeia (USP) standard, in every 100 milliliters of a 0.9% sodium chloride solution, there are 15.4 milliequivalents of sodium ions and 15.4 milliequivalents of chloride ions. Furthermore, its osmolarity is 308 mOsmol/liter, and its pH range is between 4.5 to 7 (3). Previous studies have explored the properties of pure water in the vicinity of T-Consciousness Fields (4). The current research aimed to

investigate the influence of T-Consciousness Fields on water in the presence of other solutes and assess the extent and direction of changes compared to pure water.

## Method

In all experiments, the laboratory temperature was set at 22.7 degrees Celsius, and humidity was maintained at 21%. Furthermore, all measurements avoided any agitation (shaking) of the sample and control before testing, and sampling was done from the intermediate layers of the containers. In this study, we have three controls and three samples (under the influence of T-Consciousness Field 2). The values related to the mentioned properties were recorded during five measurements at the following time intervals within 48 hours, under constant and identical conditions: *Time Zero*: Before starting treatment. *Time One*: 4 hours after treatment. *Time Two*: 8 hours after treatment. *Time Three*: 24 hours after treatment. *Time Four*: 48 hours after treatment.

## Results and Discussion

The changes in the physical properties of normal saline (impure water) are shown in Figures 1

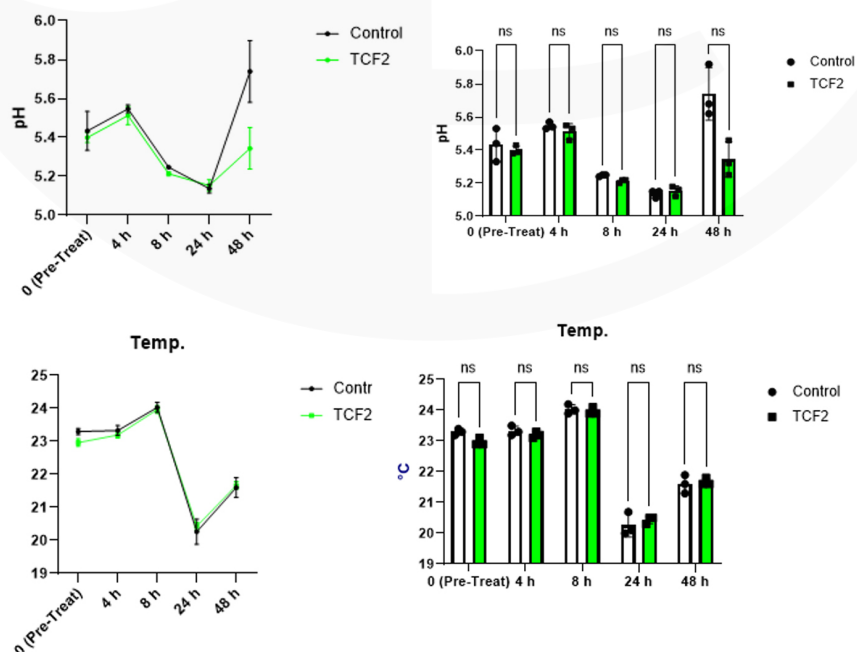


Figure 1. Changes in pH and temperature in the sample and control normal saline at different times in this study.

The temperature changes in impure water control and sample follow a similar pattern to the temperature of control and sample of pure water. On the other hand, the trend of pH changes in the impure water sample and control is different and fluctuates. The pH increases until 4 hours, then decreases at 24 hours, and increases again at 48 hours. However, the enhancement of pH

in the control was not statistically significant compared to the TCF2-treated samples. The difference in pH between the control and sample at this hour is not statistically significant.

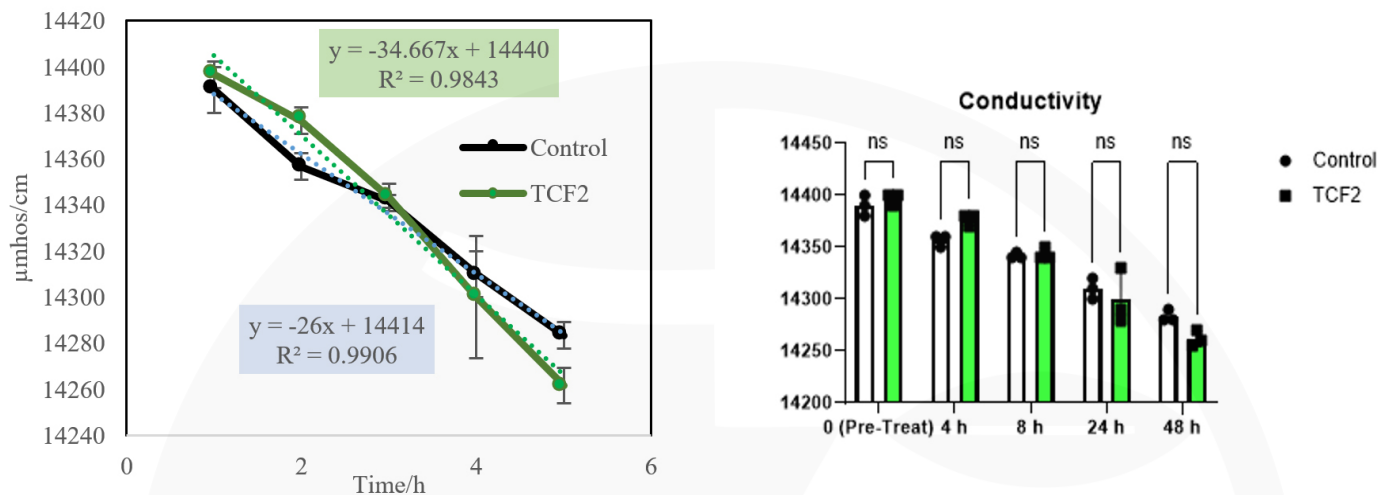


Figure 2. Changes in electrical conductivity of the control and sample of normal saline in this study.

As seen in Figure 2, electrical conductivity decreases in the control and sample but with a steeper slope of approximately 33% in the sample, following the mission of the T-Consciousness Field2. The increase in pH, as shown in Figure 1 in the control and sample, can be attributed to a potential decrease in the amount of dissolved carbon dioxide in the water, which is in line with the overall trend of decreasing electrical conductivity in the control and sample. Considering the increase in entropy due to the dissolution of the solute in pure water, the reduction in ion concentration and electrical conductivity in the sample compared to the control is indicative of the decrease in entropy in the impure water sample under the influence of T-Consciousness Field2.

of sample hardness, examination of changes in chloride ion concentration, and changes in oxygen and carbon dioxide gases, along with other properties, will significantly aid in understanding and analyzing the obtained results and are on the agenda of the authors.

The observed changes in the sample, compared to the control, will not be possible without providing the necessary energy in the study system, indicating its supply through T-Consciousness Fields. The measurement

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# Investigating Ultraviolet-Visible Absorption of Pure Water and Normal Saline under the Treatment of Taheri Consciousness Fields

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## Abstract

UV-Vis spectroscopy is a spectrophotometric technique that relies on the absorption of light by species within the ultraviolet to visible range (200 to 700 nanometers). The study of water absorption has been conducted over the decades from the 1930s to the 1980s to investigate electron transfer levels in various studies. The investigation of the absorptive properties of solutions provides significant information about changes in their internal environment, reactions, and molecular interactions. In this study, with the aim of investigating the effectiveness of T-Consciousness Fields on water molecules and examining the potential changes in the physical properties of water, we have focused on the changes in light absorption in the ultraviolet-visible range by water molecules in the presence of T-Consciousness Fields 1, 2, and 3. Additionally, alongside observing the effects of T-Consciousness Fields on the absorptive properties of pure water, the absorptive properties of normal saline are investigated to provide a valuable basis for comparison. In this study, absorptive properties of normal saline are also examined using UV-Vis absorption spectroscopy. Changes in absorption between the control and samples subjected to T-Consciousness Fields 1, 2, and 3 are obtained compared to the standard deviations of changes caused by the control for each wavelength. According to the results obtained for pure water, T-Consciousness Field 1 has led to significant changes in the visible region, exceeding the standard deviation. In the case of normal saline samples, the absorption resulting from the samples in the visible region in the case of T-Consciousness Field 1 shows a decreasing trend, and in the case of T-Consciousness Field 2, it exhibits an increasing trend. Furthermore, the changes in absorption in the sample treated with T-Consciousness Field 3 fall within the range of the average standard deviation of absorption values for the sample and control. A detailed analysis of absorption regions and a comparison of the effectiveness of the three applied T-Consciousness Fields on pure water and normal saline are in the authors' agenda.

**Keywords:** UV-Visible Spectroscopy, Pure Water, Normal Saline, Taheri Consciousness Fields

## Introduction

Absorption in UV-Visible spectrometry is related to the excitation of molecules from its ground state to an excited state (1). When less energy is required for this transition, the absorption wavelength is longer; conversely, if more energy is required, the wavelength is shorter (2). Measuring the absorption differences at different wavelengths and quantifying the differences observed due to various treatments is a common method for measuring changes in the overall content of a sample (3). In the case of water, the measurement of absorption differences in the ultraviolet region is conventionally used to measure the concentration of disinfectant substances (4). For liquid water molecules, ultraviolet absorption is clearly determined, and this absorption significantly increases as it receives near the vacuum ultraviolet region. The predominant absorptions of water are reported at wavelengths of 147 nanometers and 275 nanometers (5).

On the other hand, sodium and chloride ions play vital roles in the human body; sodium ion is the main extracellular electrolyte involved in the distribution of fluids and other electrolytes (6). Chloride ion acts as a buffer in the lungs and other tissues, facilitating the connection between respiratory gases (oxygen and carbon dioxide) and hemoglobin. These ions are mainly controlled by the kidneys, which regulate the body's homeostasis by absorbing or excreting within the nephrons (7). Moreover, water is the primary matrix of life. Water is essential for the body and constitutes more than two-thirds of the total body weight (8). Similarly, water balance is primarily controlled by the kidneys and ureters. The distribution of water mainly depends on the concentration of these electrolytes in different compartments (9).

Investigating the optical absorption properties of water solutions and normal saline reveals the reaction between light and the constituent parts of pure water and this solution. In this study, with the aim of investigating the type and extent of the effect of T-Consciousness Fields

on optical absorption properties, changes in the absorption spectra of pure water and normal saline are examined, and the standard deviations of the sample and control absorption changes are calculated.

## Method

To investigate the changes resulting from the treatment of T-Consciousness Fields on the samples and observe any potential alterations in absorption levels across various wavelengths in the UV-Visible region, the following stages were conducted:

- 1-The operator was the same in all experiments.
- 2-The laboratory temperature was maintained at  $26\pm 1$  degrees Celsius in all experiments.
- 3-The constant quartz cells were utilized consistently in all experiments.
- 4-The samples used in all experiments were from the same primary volume (twice distilled water and standard saline solution).
- 5-The reference and sample cuvette both contained the same sample and the treatment of TCFs was done only on the sample cuvette and the water molecules.
- 6-Before performing absorption scans in the UV-visible range, baseline scans were obtained for all wavelengths.
- 7-Before the treatment of samples under T-Consciousness Fields in each experiment, three readings were taken from the entire visible and UV range at a speed of 1 nanometer per second, and the average of these three readings was used as the control.
- 8- Immediately after the treatment of sample cells under T-Consciousness Fields, three consecutive scans of the entire visible and UV range at a speed of 1 nanometer per second were performed, and the average of these three scans was taken as the sample reading.
- 9- The above steps were carried out for all three types of T-Consciousness Fields 1, 2, and 3, and after using each sensory field, the volume of the sample and control cells were replaced using the initial water container.

## Results and Discussion

The distribution of the difference in absorption between the sample and control ( $\Delta A$ ), along with the standard deviation obtained from the average

values of three samples and three controls in the entire UV-visible range, is presented for the three experiments related to T-Consciousness Fields 1, 2, and 3 in Figures 1 and 2.

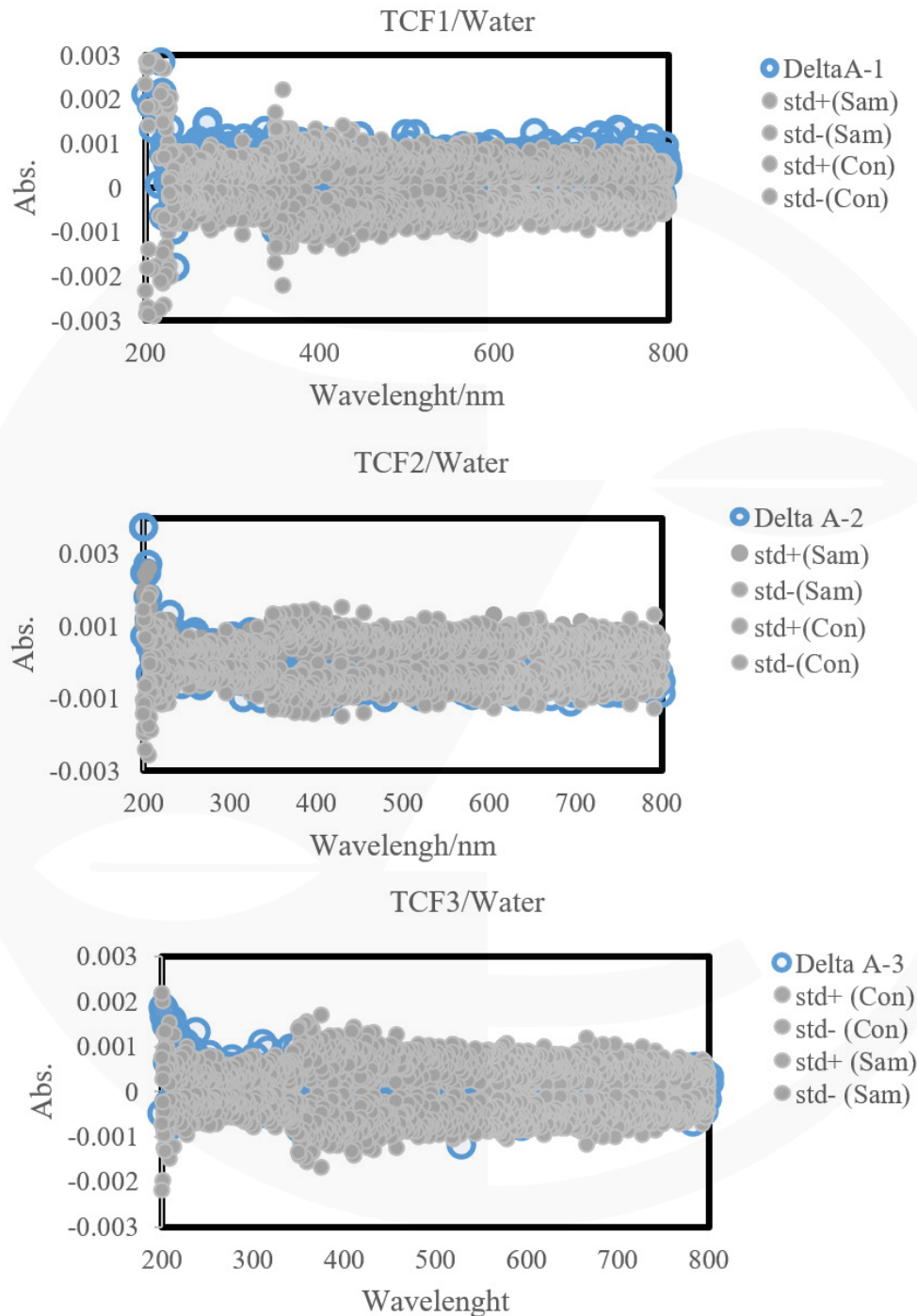


Figure 1. Difference in pure water absorption between the sample and control ( $\Delta A$ ) in the UV-Visible range compared to the standard deviation of sample and control values in this study. The purpose of this display was to determine the absorbance difference (blue color) compared to all standard deviations (gray color).

As seen in Figure 1, the variations in absorption values resulting from pure water in the samples subjected to TCFs treatment mostly overlap with the standard deviation of sample and control

values, with minor changes observed in the case of T-Consciousness Field 1 in the visible region.

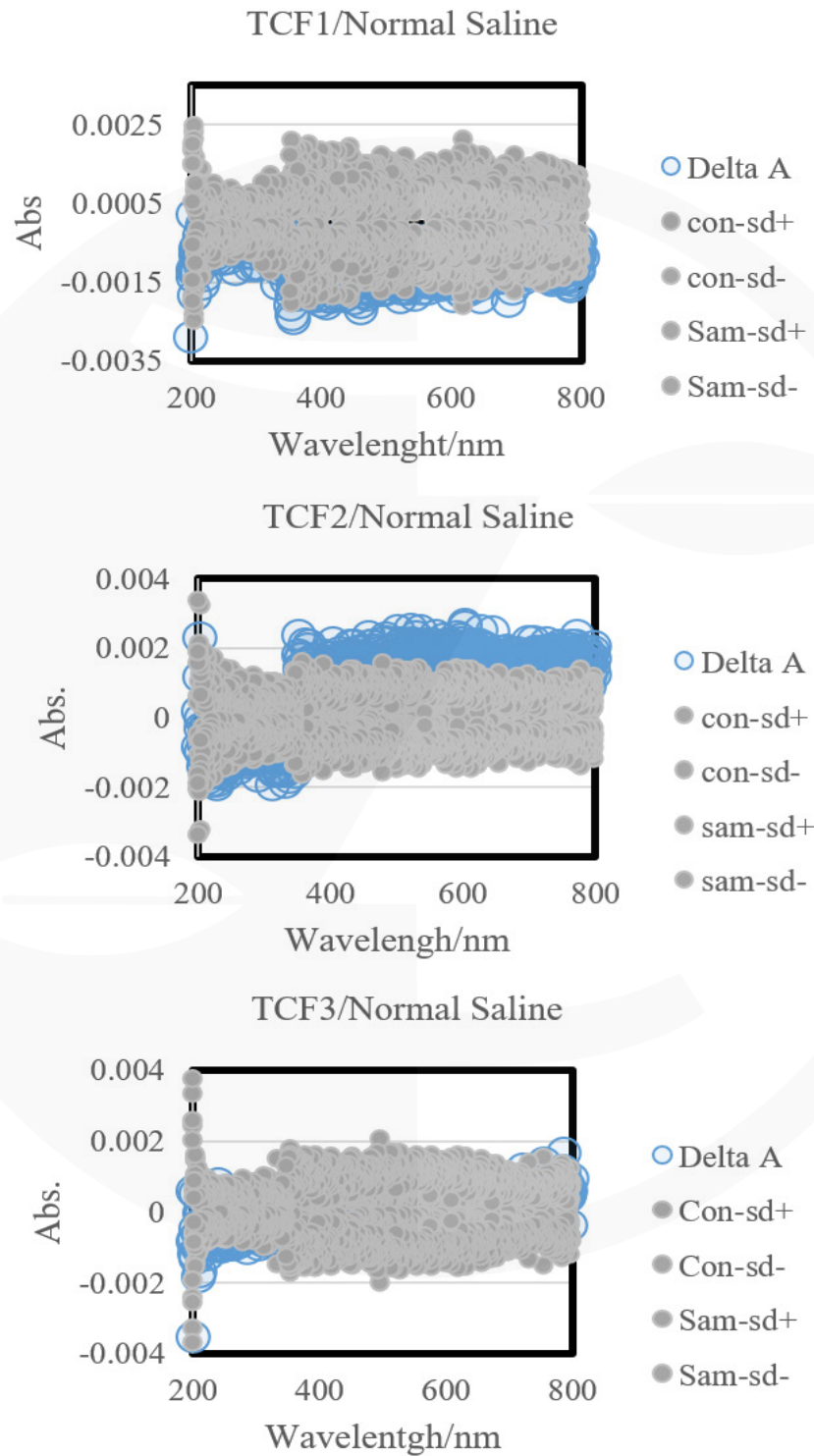


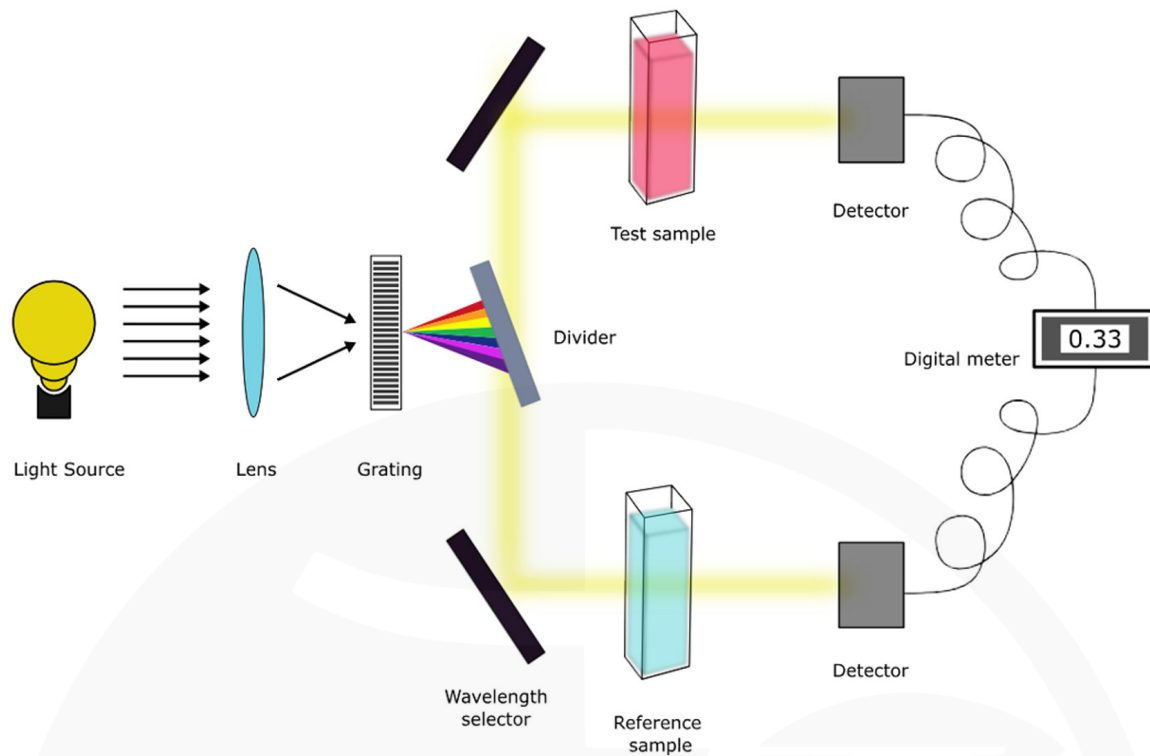
Figure 2. Absorption values of normal saline in the UV-Visible range compared to the standard deviation of sample and control values. The purpose of this display was to determine the absorbance difference (blue color) compared to all standard deviations (gray color).

Furthermore, Figure 2 shows that the absorption from normal saline in the visible region has a decreasing trend for T-Consciousness Field 1 and an increasing trend for T-Consciousness Field 2. The changes in absorption for samples subjected to T-Consciousness Field 3 fall within

the standard deviation range of sample and control values. The analysis of partial differences at different wavelengths and comparison with data related to pure water and normal saline is on the authors' agenda.

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The UV-VIS spectrophotometer requires two detectors to measure or calculate the electron ratio for absorption in the sample. In this bimodal spectrophotometer, the incident light is diffracted and directed towards the cuvette, where conductivity is controlled. The diffracted or transmitted beam is identified by the detectors; the spectrophotometer also requires a stabilized voltage source.

(<https://psiberg.com/uv-vis-spectroscopy>)

# Refractometry of Pure Water and Normal Saline under the Influence of Taheri Consciousness Fields

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## Abstract

A change in the refractive index of light in a medium indicates effective molecular interactions in creating the optical density of that medium. In general, changes in molecular content resulting from the formation of solvent and solute molecular systems lead to changes in the refractive index of a solution. In continuation of studies on the effect of T-Consciousness Fields (TCFs) on water and its well-known solution on Earth's surface with medicinal value, normal saline, this study investigates the impact of TCFs on the refractive index of pure water and normal saline, compared to the control. According to the results, TCFs generally lead to an increase in the refractive index in the samples, indicating changes in molecular motion or, in other words, an increase in the optical density of both water and normal saline samples. In pure water samples, there is no significant difference in the effect of various TCFs, but in normal saline samples, the highest impact belongs to TCF3, followed by TCF 2 and 1. Further investigations into molecular changes in the samples are in the authors' research agenda.

**Keywords:** Refractive Index, Refractometry, Optical Density, Taheri Consciousness Fields, Pure Water, Normal Saline

## Introduction

Refractometry is a technique that measures how light refracts when passing through a specific substance, in this case, an unknown compound. It determines the refractive index, which can be used for identifying an unknown liquid compound or measuring the purity of a liquid compound (1). The closer the refractive index is to the values mentioned in references for a specific compound, the purer the sample is. Molecules in the medium delay the passage of light waves from within the medium. The amount of delay depends on the number of molecules and, consequently, the density of the medium (2).

In fact, absolute refractive index values can be used to identify chemical species, just as measuring other physicochemical properties and the absorption of light density does (3). The refractive and scattering spectra are used to describe the structural properties of analytes (4). The most important application of this method is determining the quantity of completely defined binary system components in which pure components are significantly different in terms of refractive index, and there is an almost linear relationship between  $n$  and analyte concentration. For example, it can be used to determine the amount of protein or sugar in aqueous solutions (5).

In this study, the refractive index of pure water and normal saline solution when exposed to T-Consciousness Fields is investigated. This involves changes in the optical density of these compounds, indicating changes in the type of interaction between pure water and normal saline molecules and light under the influence of T-Consciousness Fields. The goal of this study is not only to examine the effect of T-Consciousness Fields on the optical density of water and related solutions but also to find a property of matter that is more susceptible and responsive to T-Consciousness Fields treatment.

## Method

The sample and control in this study, similar to other water-related studies, are the same and the difference lies in the reading before and after treatment with T-Consciousness Fields. The treatment with T-Consciousness Fields was instant and the readings were taken in the minimum time afterwards (within seconds). The precision of the refractometer used for RI is equal to 0.00002.

## Results and Discussion

Observable changes in the refractive index along with their statistical significance are shown in Figure 1.

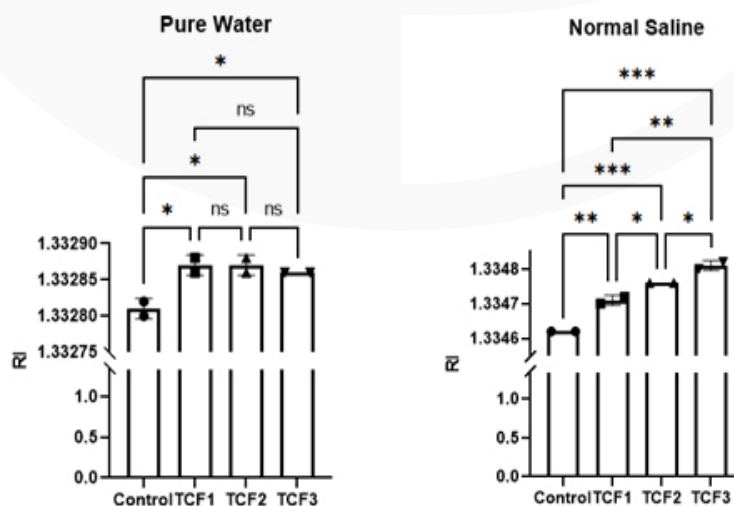


Figure 1. Changes in the refractive index of samples and controls in this study. Left side: Water samples, right side: Normal saline samples. \*: p-value<0.05; \*\*: p-value<0.003; \*\*\*: p-value<0.0005.

Based on the presented results in Figure 1, in general, T-Consciousness Fields lead to an increase in the refractive index in the samples, indicating changes in molecular motion or, in other words, the optical density of the samples. In the case of pure water, there is no significant difference in the effect of various TCFs, and on average, the T-Consciousness Fields increase the RI by three times the precision of the device (equivalent to 0.004%). In the normal saline

sample, a significant difference in the effect of various T-Consciousness Fields is observed, with the highest impact belonging to TCF3, followed by TCF2 and 1, respectively. In this sample as well, T-Consciousness Fields increase the RI on average by seven times the precision of the device (equivalent to 0.01%). Further investigation of other parameters related to optical density using complementary and validation methods is part of the authors' research agenda.

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# Examination of the Effects of Taheri Consciousness Fields on the Physicochemical Properties of Water in Pure and Normal Saline Forms

According to Taheri's theory, "T-Consciousness" is one of the three fundamental elements of the cosmos, distinct from matter and energy, which is not quantitatively measurable, and possesses a qualitative nature. Furthermore, various types of T-Consciousness Fields (TCFs) with diverse functions exist as subsets of the Cosmic Consciousness Network. According to this theory, the influence of TCFs extends across all material and energetic levels of the universe. In this issue, water, as a crucial molecule in Earth's structure and the formation of life, has been selected. The application of TCFs in diverse experiments on water molecules, in both normal saline and pure forms, provides the opportunity to elucidate the effects of TCFs on the level of these vital molecules.

In this series of experiments, the effect of TCFs on various properties of pure water and normal saline, which is the 0.9% salt form of water along with chlorine and sodium ions, has been investigated. For example, temperature, pH, electrical conductivity, light absorption, and refractometry of the samples have been evaluated under the influence of these fields. Examining the obtained results allows us to discern which of these studied properties was the most indicative of the effects of TCFs.

