

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 ± 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 (ΔA), 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.

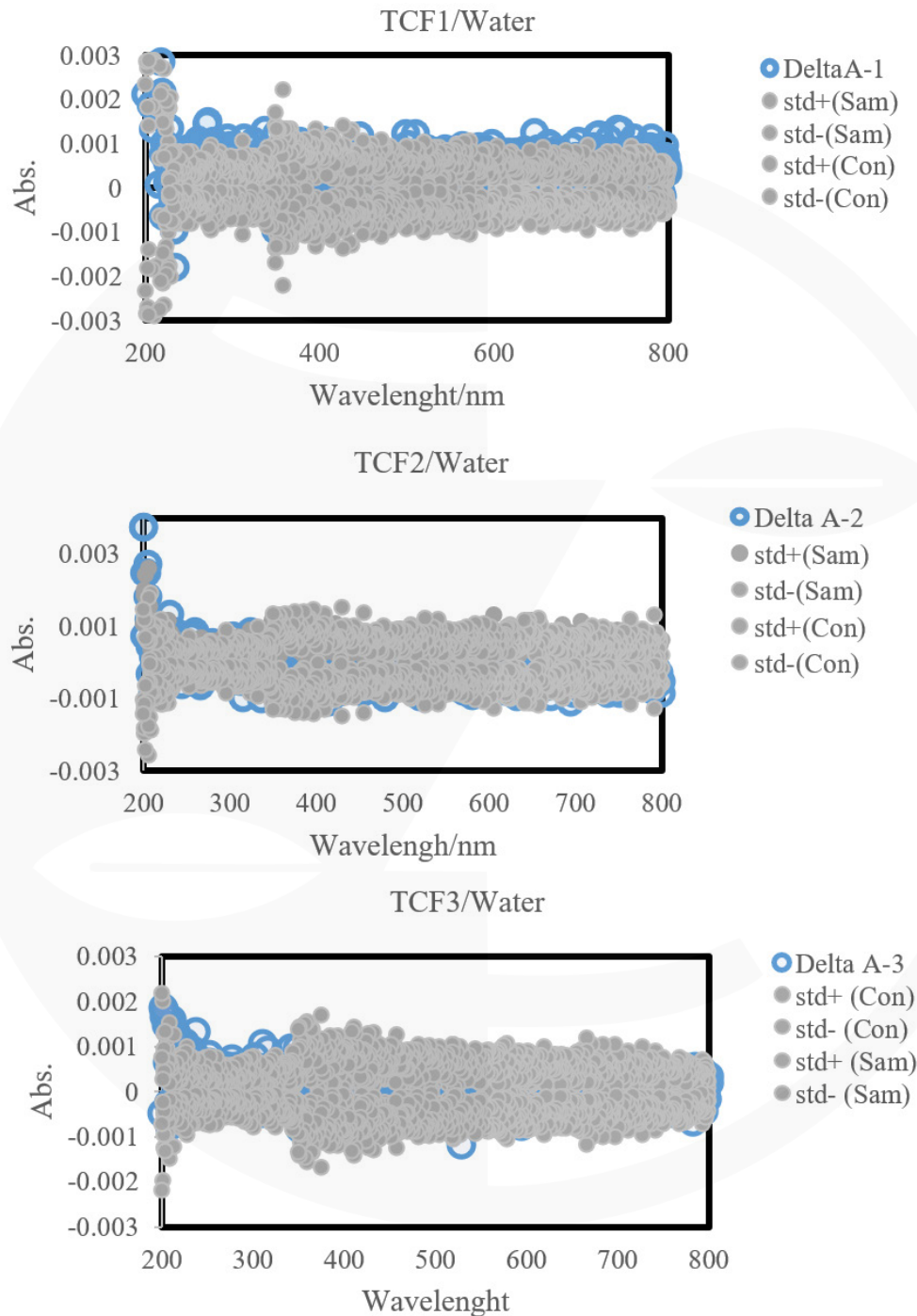


Figure 1. Difference in pure water absorption between the sample and control (ΔA) in the UV-Visible range compared to the standard deviation of sample and control values in this study. The purpose of this display was to determine the absorbance difference (blue color) compared to all standard deviations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

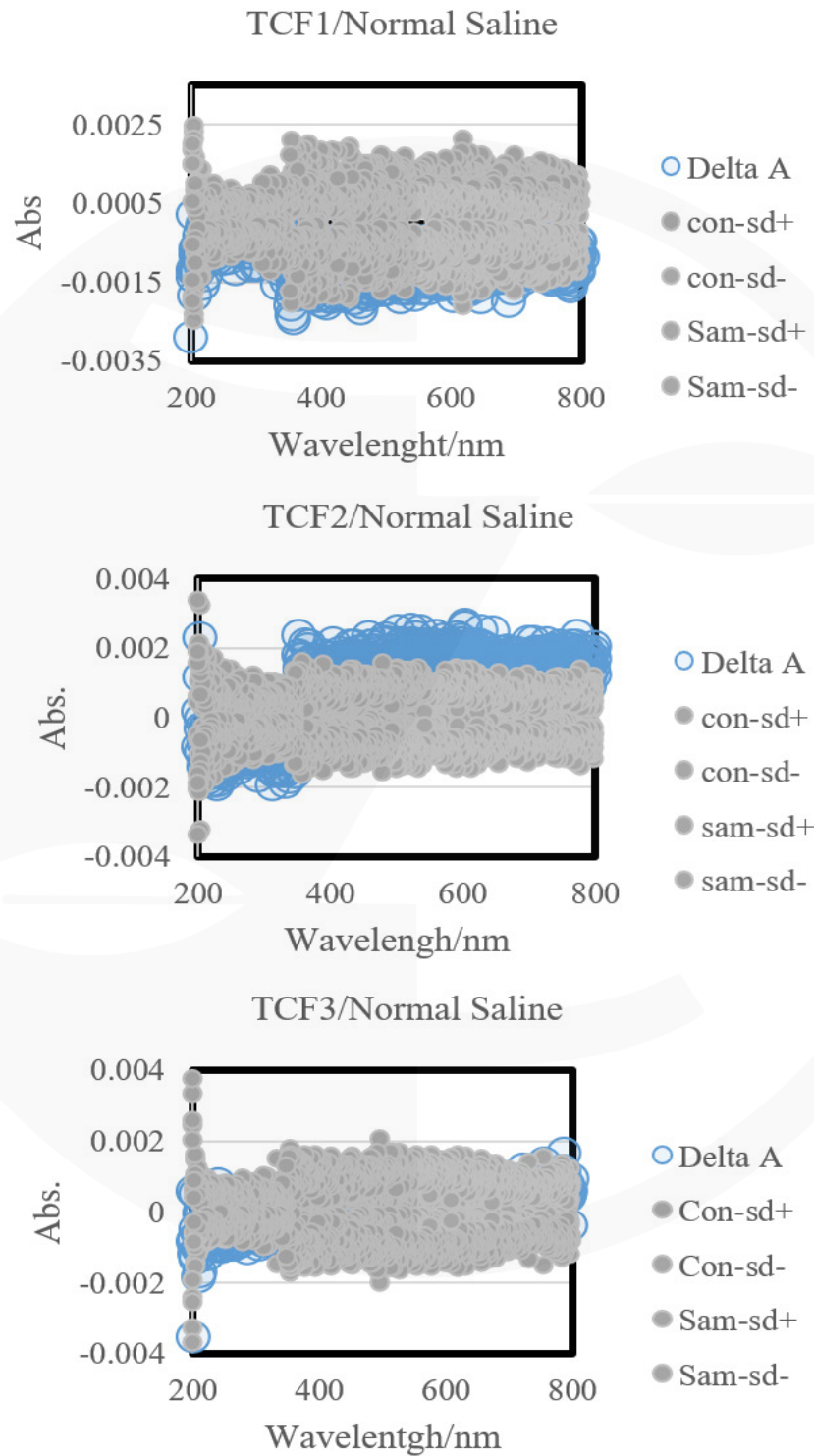


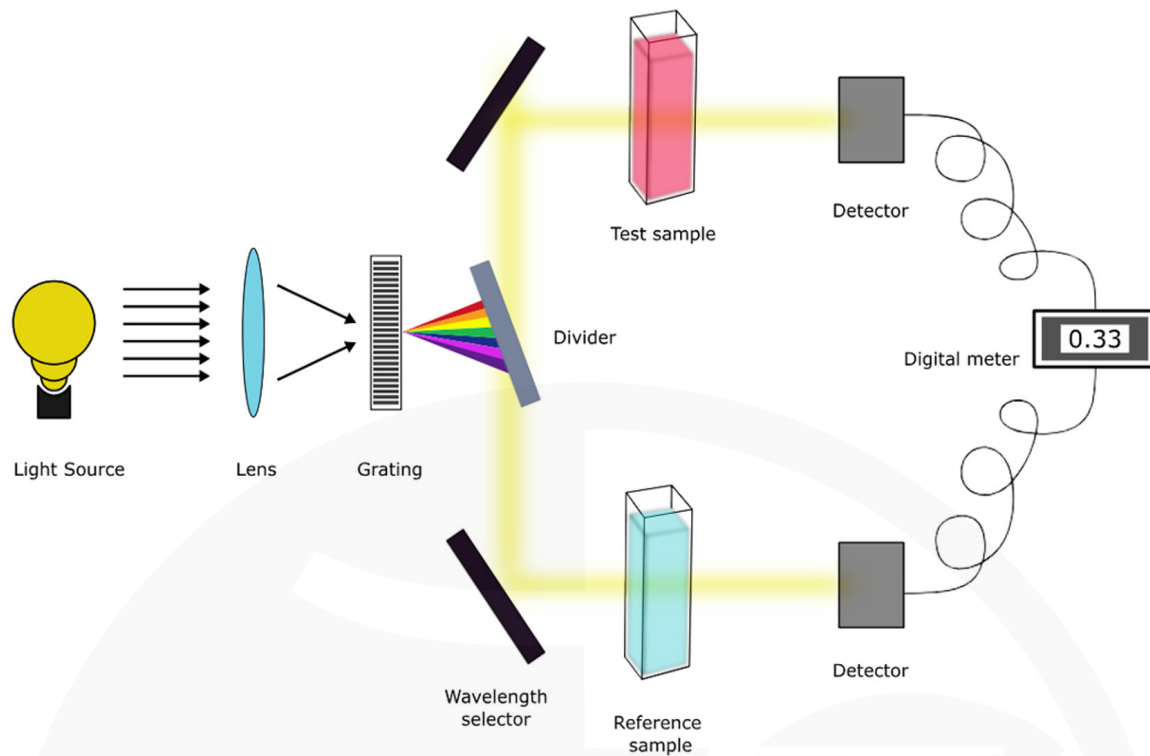
Figure 2. Absorption values of normal saline in the UV-Visible range compared to the standard deviation of sample and control values. The purpose of this display was to determine the absorbance difference (blue color) compared to all standard deviations (gray color).

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>)