

DETERMINATION OF ORGANOLEPTIC AND PHYSICO-CHEMICAL INDICATORS OF SPRING WATER WITH ELECTROMAGNETIC FIELD

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Annotation: *The article provides information on the effect of magnetized water on cell membranes, blood and cholesterol levels, physicochemical and organoleptic characteristics of magnetized water.*

Keywords: *magnetic water, blood, cholesterol, physicochemical parameters, cell membranes, spring water.*

Water is the most precious resource given to man by Allah. Water is as important to human life as air. Without water, neither animals nor plants can survive. Water makes up 50-99% of living things. Scientists have found that the amount of water in all organisms is about half that of rivers on Earth.

The main water sources in Uzbekistan are rivers, streams, lakes and springs. Natural springs contain various substances in the form of ions, undissociated molecules, gases and colloidal particles. Spring water comes from different layers of the earth and has healing properties due to the high content of dissolved mineral salts [1]. Therefore, it has been found that patients recover faster as a result of its use against various diseases, including gastrointestinal, goiter, skin and other diseases [2].

From a biological point of view, water contains properties that are very important for the reproduction of life. All known forms of life evolve in relation to water. Because water has the ability to dissolve many soluble substances in the body, it plays a very important role both as a solvent and as an important part of many metabolic processes in the body.

Metabolism is the sum of anabolism and catabolism

In anabolism, water promotes the growth of larger molecules (e.g., starches,

triglycerides). In catabolism, water is used to break the bonds of smaller molecules (e.g., glucose, fatty acids, and amino acids used for energy or other purposes). Without water, these special metabolic processes do not take place in the body.

Magnetizing water through an electromagnetic field is one of the most effective ways to process and soften water. Magnetic water obtained using this method increases the biological activity of cell membranes [3]. Reduces the amount of cholesterol in the blood and liver. It normalizes blood pressure, speeds up metabolism and helps to wash away small stones in the kidneys [4,5].

Based on the above information, we converted the water into a state of magnetized water using an electromagnetic field. To study the organoleptic and physicochemical properties of magnetized water in the laboratory, we went to the Andijan Regional Center for Sanitary and Epidemiological Peace and Public Health, where we compared the physicochemical properties of ordinary and magnetized water. For example, the spring water of “Sohibkor” Farm of Bulakbashi district was taken and the following results were obtained.

Table 1

Organoleptic and physicochemical properties of ordinary and magnetic water

Organoleptic and physicochemical parameters	Sample types and quantities	
	Normal spring water	Magnetic spring water
Smell	0	0
Taste	0	0
Colour	5	5
Silt	No	No
Precipitate	No	No
Polyphosphate	-	-
Aluminum	0,9	0,8
Residual chlorine	-	-
Molybdenum	-	-

Marganes	-	-
Ammonia	Yo'q	Yo'q
Nitrite	Yo'q	Yo'q
Nitrate	1,47	1,93
Hardness	7,0	6,74
Dry residue	382,8	382,7
Chloride	19,4	25,2
Sulfate	31	46
Iron	0,010	0,012
Formaldehyde	-	-
Ftor	0,16	0,17
pH	7,0	7,0
Alkalinity	4,3	4,0
Clarity	30	30

Based on the above table, we can say that the use of electromagnetic fields accelerates the metabolic process of the body and improves the permeability of cell membranes due to the increased mineral content and some loss of hardness of the magnetized water.

References:

1. N.X. Abdurahimova, I.R. Asqarov, Sh.M. Qirg'izov, X. Isaqov, Yu.T. Isayev Shifobaxsh suvlarni ahamiyati uni sinflash va sertifikatlash. "Oltin vodiy tabiati" MCHJ ga qarashli sanatoriya shifobaxsh suvini kimyoviy tarkibi. I.R. Asqarov Tovarlar kimyosi. Monografiya. Toshkent-2019. 294-b.
2. I.R. Asqarov, N.X. Abdurahimova, Sh.M. Qirg'izov, X. Isaqov Buloq suvlari – insonlarni davolashdagi istiqbollari. "Tovarlarni kimyoviy tarkibi asosida sinflash va sertifikatlash muammolari va istiqbollari" mavzusidagi Respublika 4-ilmiy-amaliy konferensiya materiallari. Andijon, 2015-yil 14-may. 74-75-b.
3. D.T. Xasanova, N.X. To'xtaboyev, I.R. Asqarov Sifatli pivo ishlab chiqarishda magnitlangan suvdan foydalanish. I.R. Asqarov Tovarlar kimyosi. Monografiya. Toshkent-2019. 383-b.

4. Sh.M. Qirg'izov, A.S. G'ofurov Yurak-qon tomir kasalliklarini magnitlangan suv yordamida davolash. Polish science journal. 2021. 97-98 b.

5. Sh.M. Qirg'izov, A.S. G'ofurov Buyrak-tosh kasalliklarini magnitlangan suv yordamida davolash. International scientific-online conference on Innovation in the modern education system Part 2. 2021. 175-177 b.