Biological effects of different types of water organization

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Water has central role in structuring of proteins and nucleic acids, which makes her essential for their normal function [1]. Changes in water structural organization in cells can thus be used as a parameter of healthy or disrupted functioning [1,2,3]. However, it is more important to find ways how to influence that organization to achieve better, naturally more favorable state of water in human organism.

Application of different methods and materials for influencing water organization – from applying magnetic fields, adding certain nanomaterials or simple exposure of water to sun irradiation were investigated using wheat plants as a living system model, and their growth was monitored in order to analyze which water treatment promoted growth best. The results will be presented and discussed.

References:


Spectroscopic characterization of aqueous fullerol solutions

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The function of biomolecules is dependent on their structure, and the structure of biomolecules is largely result of the creation of hydrogen bonds with surrounding water molecules.

In this study near infrared spectroscopy was used to characterize aqueous solutions of hydrated hydroxylated fullerene – new type of nanomaterial designed with special purpose of influencing biomolecules through influence on organization of surrounding water [1].

Spectral data was analysed using Two-dimensional correlation spectroscopy [2]. The results are presented from aspect of Aquaphotomics, a specific water-mirror approach, able to recognize changes in the water matrix [3].


У овом истраживању коришћена је блиска инфрацрвена спектроскопија за карактеризацију водених раствора хидрираних хидроксилних фулерена – новог типа наноматеријала дизајнираних са посебном сврхом остваривања утицаја на биомолекуле преко утицаја на организацију околне воде [1].

Спектрални подаци обрађени су коришћењем Дводимензионалне корелационе спектроскопије [2]. Резултати су представљени са аспекта Аквафотомике, специфичног приступа који користи воду као врсту огледала која може да препозна промене у организацији водених молекула [3].

Референце:

