

INTERACTION OF MAGNETIC FIELDS WITH LIQUID STRUCTURES

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S u m m a r y

A mechanism of the interaction of a magnetic field with liquid is suggested. The mechanism of the influence of electromagnetic fields (EMF) on biological processes can result in either the change of rates of biochemical reactions due to the change of water properties in EMF, or the change of configurations of biologically active molecules, or both of them. For the soliton model of bulk knitted structures in a magnetic field, the statistical integral and the configurational contributions to free energy, entropy, and specific heat were calculated. It is shown that the concentration of solitons depends on external fields. In particular case of bulk knitted structures, for liquid water in the absence of a magnetic field, the obtained results are in good agreement with the experimental data. The phenomenon of memory of hydrogen — bonded systems is explained in terms of the continuum soliton concept of the structure of liquid.