

Ultrasonic and positron annihilation studies of liquid solutions of *n*-hexanol in 1,2-ethanediol.

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The pioneer experimental results of positron annihilation experiments in non-aqueous solutions of *n*-hexanol in ethylene glycol (1,2-ethanediol) were compared with the acoustic ones. The changes of annihilation parameters with concentration show that the solute affects strongly the original diol structure. Similarities with the results known for aqueous systems were found, suggesting formation of clathrate-like solvates (the phenomenon here called the hydrophobic-like solvation). The ultrasonic data for the title system do not confirm directly formation of any specific structure. It is possible that compressibility of solvates does not differ from the pure liquids, and/or the solvates are formed in very small amounts. Thus, usefulness of the positron annihilation method in investigation of liquid structure was proven again.

Słowa kluczowe

Non-aqueous solutions, Positron annihilation, Sound velocity, Sound absorption, *n*-hexanol, Ethylene glycol, Hydrophobic solvation, Structure of liquid solutions

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