

# Dielectric Spectroscopy of Some Multihydroxy Compound Solutions in Water/Tetrahydrofuran Mixtures

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The dielectric spectra up to 72 GHz have been measured at 20 °C for solutions of glucose and sorbitol (max. 1 mol/l) in the mixed solvent water/tetrahydrofuran (THF) as a function of the THF content (max. volume fraction 0.4). There is no significant difference in the relaxation behaviour of corresponding glucose and sorbitol systems. The spectra of binary water/THF as well as hydroxy compound/water systems show that the respective minor components influence the structure and dynamics of water. The ternary systems hydroxy compound/water/THF, however, exhibit merely a superposition of those effects, thus there is no evidence for an interaction between the hydroxy compound and THF in aqueous environment.

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