

Dielectric Relaxation Study of ZnCl_2 and ZnBr_2 Solutions in Water/DMSO Mixtures

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Dielectric spectra have been measured for the title systems up to 72 GHz at 20°C with salt concentrations ≤ 1 mol/l. The results are described by a superposition of Debye terms. Two terms are sufficient for binary water/DMSO mixtures, while two additional lower frequency ones are required when salt is added. The results for both halides differ only little. The relaxation strengths of a term ascribable to ionic complexes and a term ascribable to water/DMSO (2:1) complexes vary in opposing sense, demonstrating the competition between those complexes.

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