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Study of solvation behaviour of Dimethyl Ammonium Hydrochloride salt in various solvent mixtures

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ABSTRACT

Electrical conductivities of DMAH have been studied in aqueous mixtures of acetone, DMF and THF in a whole range of composition of mixtures at 298 K. The conductivity data have been analysed by the Debye - Huckel - Onsager and Krauss - Bay equations. The limiting molar conductance Λ_0 and ion dissociation constants Kc have been evaluated at all the solvent compositions. The dependencies of the limiting molar conductances Λ_o and Walden products $\Lambda_o \eta_o$ as a function of mixture composition were analyzed in the aspects of ion-solvent interactions.

Keywords: Limiting molar conductance, ion dissociation constant, Debye – Huckel – Onsager, Krauss – Bay equation, Walden product.