

## P R E F A C E

The thermodynamic and transport studies of multicomponent solutions are essential to an understanding of the interactions in the solutions. Multicomponent electrolytic solutions are very important because they are found in numerous processes in chemical industry, occur in numerous quantity in the water of oceans and have an important role in the physiological processes of body fluids and cell equilibrium. The thermodynamic and transport studies are therefore important both from theoretical and practical view point. In the present investigations, the thermodynamic properties which have been studied are: molar volumes and thermodynamic functions of transfer. The transport properties studied are electro-kinetic effects in case of multicomponent systems.

The present work is divided into four chapters. The first chapter gives a brief introduction to thermodynamic and transport properties of multicomponent solutions. The second chapter describes the molar volume studies of multicomponent solutions. The thermodynamic functions of transfer have been discussed in chapter III. The coupled transport processes viz., electro-kinetic effects of multicomponent systems have been discussed in chapter IV, and a brief account of the work is reported in Summary.