

Foreword

The book is the continuation of a number of works of the author [1–3] dealing with investigation, representation, and methods of calculation of the physicochemical properties of binary and multicomponent electrolyte solutions.

A mathematical theory of concentrated electrolyte solutions is first given in such a complete form. The potential of ion-ion interaction, a theory of ionic forces, a thermodynamic theory of equilibria in solutions, a theory of transport phenomena are considered. Unfortunately, complex processes that occur in electrolyte solutions cannot virtually be described by simple mathematical procedures; therefore, an adequate background is required to understand many mathematical calculations. Each section of the theory is finished by an equation to describe any property and is illustrated by calculation examples.

The author will gratefully accept all comments and wishes of the reader.