Foreword

This book is the continuation of a number of works dealing with studies, representations and methods of calculation of the physico-chemical properties of binary and multicomponent electrolyte solutions [1—3].

Compared to [3], this book has substantially revised and enlarged data on the thermal properties of electrolyte solutions, in particular, new data on apparent molar heat capacity. Experimental data on heat capacity for the most-used electrolytes are represented in the high-temperature region and at various pressures. This book does not contain experimental data on integral heat of solution in water and enthalpy solution. The data were given in [3].

Section 1 gives the methods of calculation of heat capacity and apparent molar heat capacity and various coefficients of equations to calculate binary and multicomponent solutions.

The list of electrolytes in this book is significantly longer than in [3] (see Table index for Section 2), and the data for the same electrolytes were revised. The logic sequence of reference data is identical to that in [3], and the maximum temperature range and mass content in a solution are given for each electrolyte. Considerable attention is given to high-temperature studies. Experimental data for many electrolytes, which are presented here, were obtained using original experimental techniques, which should make this book popular.

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