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A Bibliography of Electron Microscopy. II

COMPILED BY

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SINCE the closing date of our bibliography published in this journal,¹ a number of papers on electron microscopy appeared in this country and a large number of foreign papers came to our knowledge. This supplement is an attempt, therefore, to bring the bibliography up to date. Due to wartime conditions it may not be as complete as we would wish, but we hope that these additions will help the research workers in this new field.

As previously, the material is arranged in eight groups; within each group the arrangement is chronological and within each year alphabetical by author and title.

We again wish to acknowledge the assistance of Professor L. Marton, of the Division of Electron Optics, Stanford University.

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New Books

The Physical Chemistry of Electrolytic Solutions. A.C.S. Monograph Series, No. 95

BY HERBERT S. HARNED AND BENTON B. OWEN.
Pp. 611+xxxvi, Figs. 165, 15×23½ cm. Reinhold Publishing Corporation, New York, 1943. Price \$10.00.

The purpose of this treatise, as stated by the authors in their preface, is to present the well-established interionic attraction theory in a logical rather than a historical order and to discuss the numerical treatment of the data and the various properties of electrolytes in terms of the fundamental equations of theory.

The fifteen chapters of the monograph are divided into three general parts. Chapters one to five contain a thermodynamic introduction, a general statement of the interionic attraction theory, the theory of ionic solutions in equilibrium and in perturbed states, and a very useful numerical

summary of the theoretical results in which the theoretical equations are reduced to their simplest forms. Chapters six to ten contain discussions of experimental methods, with emphasis on the numerical treatment of data rather than experimental techniques, employed to study the properties of electrolytic solutions. These include conductance in aqueous and non-aqueous solutions, freezing point, boiling point, vapor pressure, and the electromotive force method. The last section, chapters eleven to fifteen, deals with the properties of electrolytes, beginning with hydrochloric acid and proceeding to other 1-1 electrolytes, polyvalent electrolytes, mixtures of strong electrolytes and weak electrolytes. These chapters and the appendix contain a large amount of useful information, much of it critically evaluated, in the form of figures and tables.

In general the purpose of the authors is well achieved. Their extensive experience in the experimental study of electrolytes is well known and gives authority to their