

variety of analytical procedures and pH determinations. The fourth part, not included in the first edition, gives clear introductions to voltammetry and amperometric titrations. These chapters, though brief, give the necessary background for understanding diffusion currents and the application of the polarograph to chemical analysis of inorganic and organic materials. All four parts are concisely presented with emphasis on experimental technique rather than theory. Sufficient theory is given, however, for a practical introduction to the various methods.

References to the literature are brief but adequate for beginners. Important revisions include new standard equations for the calculations of pH from hydrogen electrode measurements, a more detailed discussion of liquid junction potentials, newer values of ionization constants and a more extended use of thermodynamics in the theoretical derivations. The authors are to be commended on the clear and straightforward manner in which they present pertinent material.—W. J. Hamor

*The Chemical Action of Ultraviolet Rays.* By CARLETON ELLIS and ALFRED A. WELLS. Revised and enlarged edition by FRANCIS F. HEYROTH. 961 pages. 1941. New York: Reinhold Publishing Corp. \$12.

The book contains 44 chapters divided into four parts as follows: Part I, The Sources of Ultraviolet Radiations; Part II, Photochemical Processes; Part III, Applications of Photochemistry to Industrial Products; Part IV, Applications of Ultraviolet Rays in Biology. The book represents an immense amount of labor in collecting literature. The author index contains over 6000 names and there are 38 printed pages of subject index. Certain explanatory chapters regarding the modern viewpoint have been added for readers who may not have had the advantage of recent advanced courses in physical chemistry. The volume represents a valuable work of reference for those interested in photochemistry.—A. G. D.

*Report of Committee on Drug Addiction of the National Research Council, 1929-1941, and collected reprints, 1930-1941.* xxx + 1580 pages, National Research Council, Washington, D. C. 1941.

Approximately thirty pages of this volume are devoted to the report of the Committee on Drug Addiction, in which the various activities of the Committee and its accomplishments are outlined. The remainder of the book is composed of reprints of papers in which there are reported chemical studies, pharmacological studies and clinical studies. There is a total of 153 reprints. This volume contains a mass of detailed information on practically all phases of drug addiction, and should serve as a valuable reference work for those seeking authentic information in this field.—A. G. D.

*A Manual of the Literature of Chemistry,* by GRACE RIGBY CAMERON. 77 pages. (c1940.) Baton Rouge, La.: Louisiana State University. 75 cents.

This guide to the literature of chemistry lists and discusses many of the more important reference works. The latter are classified in a somewhat arbitrary fashion and there is some repetition. The section on government publications is too incomplete and sketchy to be of much value. Critical discussion and completeness of information, so necessary for the beginner, are frequently lacking. The book also shows a lack of attention to detail in spelling. It is believed, however, that it is worthy of a place in the chemist's library.—A. G. D.

*Emulsions and Foams,* by SOPHIA BERKMAN and GUSTAV EGLOFF. 591 pages. Reinhold Publishing Corp., 330 West 42nd Street, New York, N. Y., 1941. Price, \$8.50.

This book is concerned primarily with the theory and applications of emulsions and, as such, it appears to be the most complete and comprehensive work of its kind published to date. The first chapter deals with the theory of emulsions and foams; the second, with emulsification; the third, with demulsification; the fourth, with practical knowledge of emulsions; and the fifth, with laboratory methods used in the examination of emulsions. The first hundred pages of the first chapter are devoted to a discussion of the views of many authors who have published on the theoretical aspects of emulsions and emulsification. An extensive bibliography is given. The volume contains much information on the practical applications of emulsions and should, therefore, be of value, particularly to technologists.—A. G. D.

*Lange's Handbook of Chemistry,* compiled and edited by NORBERT ADOLPH LANGE, Ph.D. Fourth Edition, 1935 pages. Handbook Publishers, Inc., Sandusky. Fab., \$6.00.

This is the fourth edition of a reference volume for all who require ready access to the chemical and physical data used in laboratory work and in manufacturing. Much of the material in the previous editions has been completely rewritten and extended. The new tables and extension of old tables have added 85 pages to the book. The new tables are as follows: Synthetic Rubbers; Correction of the Boiling Point for Pressure; Calculation of the Boiling Point of Organic Compounds; Qualitative Spectrographic Analysis; Sensitive Lines of the Elements; Hammond's Cuprous Oxide and Copper Equivalents of Sugars; Conversion of Specific Gravity to Density; Azeotropic Mixtures; Tank and Pipe Capacities; Logarithms of Factorial  $n$ . Factorials; Binominal Coefficients. The previous editions have proved to be of value to workers in pharmaceutical laboratories and it is believed that the fourth edition with its changes in subject matter and new data will prove to be equally valuable.—A. G. D.