Bibliography end the Chapters. Chapter II is devoted to the mineral composition of the body; the first "Body Water," its distribution, blood, cerebrospinal fluid and individual minerals. Secretions and excretions are discussed in Chapter III. Tables and figures add value to this division. Internal Secretions, glands, are considered in Chapter IV. Total base, chloride, ammonium, bicarbonate, sodium and potassium are the subjects of Chapter V. Chapter VI lists calcium and magnesium. Chapter VII, on phosporus, ends with a list of 55 references; Chapter VIII is given to sulfur. Critical reviews of sulfur metabolism have been made by Lewis and by Vigneaud and Dyer. Chapter IX treats of iron in the body and in various forms. The divisions are given to functions, iron compounds in the body, differentiation of organic and inorganic compounds, quantitative distribution, metabolism, hemaglobin, balance studies and requirements and sources of iron in food. Iodine is treated in Chapter X, iodine compounds in the body, metabolism, disorders of the thyroid gland, sources of iodine and supplements in food. Chapter XI considers a number of elements which are present in small quantities, among them aluminum, arsenic, bromine, cobalt, nickel, copper, fluorine, manganese, selenium, silicon, zinc; all of them are listed in the bibliography of 201 references. Chapter XII is headed "Water Metabolism" and the subject is considered under 89 titles and various phases—functions, excretion, requirement and control. Chapter XIII treats of Anion—Cation Relationships and Chapter XIV of mineral intakes, balances and requirements. Indexes conclude the volume of nearly 400 pages.—E. G. E.

Handbook of Mathematical Tables and Formulas, by RICHARD STEVENS BURINGTON, Ph.D., Associate Professor of Mathematics at Case School of Applied Science, Cleveland. 275 pages, index included. Published by Handbook Publishers, Inc., Sandusky, Ohio. Second Edition, 1940.

This book has been compiled for the needs of students and workers in the field where mathematical computations are required. The first part of the book has a summarization of fundamental formulas and theorems of algebra, trigonometry, analytical geometry, calculus and vector analysis along with a comprehensive table of derivatives and integrals of calculus. A total of four hundred and thirty-four integral equations are given. In the second part of the book is given the usual logarithms and trigonometric tables to fourth and fifth places, with explanation as to their use; tables of natural logarithms of exponential and hyperbolic functions, reciprocals, logarithms of Gamma functions and factorals. An improved table of squares, cubes, square roots and cube roots has been incorporated in this edition. This Handbook forms the appendix of Lange's "Handbook of Chemistry" especially prepared for chemist and physicist. The

usefulness of Burington's Handbook is highly regarded as an essential to obtain speed and accuracy in mathematical computations.—E. C. BEELER.

Modern Cosmeticology—The Principles and Practice of Modern Cosmetics, by RALPH G. HARRY. F.L.C., M.R.I.P.H., F.R.M.S., A.R.P.S., 1940, Publishers, Chemical Publishing Co. Inc., 148 Lafayette St., New York City. Price, $5.00.

The author has endeavored to deal with the subject by making use of research which has required the application of scientific thought. He has given attention to questions which may arise by the addition of ingredients that are added for emulsification or permanency and also the histology of the skin and hair that may be injuriously affected or effected. The publication contains an important collection of photomicrographs showing the structure of hair, skin, nails; studies underlying the principles of the uses are presented. The author states that eye lotions are seldom fully discussed in books and periodicals. While this statement is no doubt true, there are very good reasons for being exceedingly careful of the limitations in their inclusion and substantial reasons for greater caution relative to the dangers of self-medication. It is well enough to improve the formulas and limit them, but it is equally desirable to discourage self-medication and treatment without consulting the physician. In many instances a warning from the pharmacist based on his experience is a safeguard. Evidently the author has recognized the dangers and applied his deductions for safety. It is a fact that many of the users are guided only by appearance at the time of application, but the pharmacist's responsibility does not always end there. The book serves a useful purpose as a guide to the manufacture and use of cosmetics. Possibly more should have been said about too frequent applications which may interfere with the natural processes.—E. G. E.

Specific and Special Reactions for Use in Qualitative Analysis, with Particular Reference to Spot Test Analysis, by F. FEIGL. Translated by Ralph E. Oesper. Third German edition revised. ix + 192 pages, 15.5 x 23 cm. Elsevier Publishing Co. and Nordeman Publishing Co., New York, N. Y., 1940. Price, $3.50.

This volume is an English translation of the third German edition of "Qualitative Analyse Mit Hilfe von Tüpfelreaktionen." It is stated in the preface that the translator has taken the opportunity of including some material for the fourth German edition which it is expected will be published shortly. The new material consists primarily of additional references to the literature to bring the work up to date—48 new references are given. The book presents a new approach to the subject of qualitative analysis and will no doubt be welcomed by workers in this field.—A. G. D.