

Company, G. Frederick Smith Chemical Company, Solvay Process Company, Aluminum Company of America, and the Dow Chemical Company, to mention only a few. Of the methods developed on the Manhattan Project, the author refers only to those that were collected by C. J. Rodden and published as part of the National Nuclear Energy Series. No direct references are given to the less readily available USAEC documents.

The procedures recommended are those that have been tried and found to work in an industrial laboratory. They are given in considerable detail, with suggestions regarding manipulative techniques, methods of standardizing reagents, and methods of computing the results. Where details are omitted, reference is made to a reliable published method. For example, the vacuum fusion method of determining oxygen in metals like titanium or zirconium is only outlined, but a good method published in 1951 in *Analytical Chemistry* is cited.

A useful list of absorbents for gases is given in Table 5, on page 324. Methods of standardizing acids and bases are included.

Although this is not an encyclopedic treatise, it is nevertheless a very valuable collection of analytic methods that work. Inorganic and analytic chemists will find it to be a very handy guide.

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Précis d'Ecologie Animale. F. S. Bodenheimer. Payot, Paris, 1955. 315 pp. Illus. F. 1200.

The author's point of view, as expressed in his *Problems of Animal Ecology*, (which was published in 1938), is not greatly different in this revised French version (translated directly from an English manuscript). While rejecting community concepts other than those of statistical aggregation and regarding some of the newer ideas of community metabolism as akin to Pythagorean mysticism, Bodenheimer nevertheless concedes that some of these concepts may be fruitful ways of thinking about ecological conditions. His objection is that there is a tendency to consider them to be based on scientific induction rather than as loose analogies. His primary concern is with the influence of physical and biotic factors on individuals and populations (with a minimum of mathematics), and on the whole, little seems to have been added since the original edition. Unfortunately there is no index, although there is a fairly complete table of contents.

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Solvents Manual. With solubility chart. Compiled by C. Marsden, Ed. Cleaver-Hume, London; Elsevier, Houston-New York, 1954. xii + 429 pp. \$12.95.

This book contains a very useful compilation of physical and chemical data on organic solvents and related substances, a field that has expanded rapidly during the last 10 years. A great deal of information that has been released by numerous industrial organizations is widely scattered in the literature and in company pamphlets.

The author should be commended for having achieved the tremendous task of collecting all these data in a concise and easily accessible form so that the user knows where and how to find them with ease and convenience.

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Chemistry of Carbon Compounds. vol. III, pt. A, *Aromatic Compounds*. E. H. Rodd, Ed. Elsevier, New York-London, 1954. xxiv + 685 pp. Illus. \$17.50.

Volume III, part A, *Aromatic Compounds*, of the *Modern Comprehensive Treatise on Chemistry of Carbon Compounds* treats specifically the benzene derivatives. [Volume I A, *Science* 116, 181 (1952); volume I B, *Science* 117, 422 (1952); volume II, *Science* 120, 256 (1954)] Volume III B, to follow later, will be concerned with the more complex derivatives, including multinuclear aromatic compounds.

A comprehensive treatise on so broad a field as organic chemistry demands an approach that is both analytic and authoritative. Furthermore, to be of real value to the professional organic chemist, it must be up to date and complete in its reference to the pertinent literature. *Aromatic Compounds* answers these requirements in almost every detail for the benzene series. The imposing list of contributors, which includes experts in their own specific fields, adds greatly to the contribution of this outstanding work. The contributors to the present volume are C. K. Ingold, W. J. Hickinbottom, Neil Campbell, J. Chatt, R. E. Fairbairn, D. H. Hey, E. Hoggarth, Z. E. Jolles, and Gareth H. Williams.

Chapter I begins with a historical treatment of the theory of aromatic character, followed by current theories on orientation and substitution, and a section on the formation and fission of the benzene nucleus. The later chapters follow the familiar order of presentation of Richter, with chapters on the expected derivatives of benzene through the carboxylic acids. Chapter VII, "Aromatic

metal and metalloid compounds," will be of special interest to many organic chemists. Each chapter presents the methods of formation and the chemical reactions of the given class of compounds, together with references to the original literature. The most significant members of a series are presented separately with the physical constants of the original compounds and those of the most important derivatives. Pertinent literature references are included also.

This treatise on benzene derivatives will be welcomed especially by seasoned organic chemists, since it presents fundamental concepts, together with fundamental properties of the most significant members and derivatives of the benzenoid hydrocarbons. The authors have been very successful in the difficult task of maintaining a good balance among the many topics, theories, and compounds that demand treatment in a work of this kind. The inclusion of references to the original literature throughout the treatise adds greatly to its value to the research chemist. The carefully compiled index also enhances the value of the treatise. Finally, the publishers have presented an attractive volume, free from errors, well printed, and with consistently good formulas.

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Miscellaneous Publications

(Inquiries concerning these publications should be addressed, not to Science, but to the publisher or agency sponsoring the publication.)

Forest Research Institute and Colleges, Dehra Dun. Govt. of India, Ministry of Food and Agriculture, 1954. 28 pp.

Indigenous Cellulosic Raw Materials for the Production of Pulp, Paper and Board. pt. XXV, *Wrapping Papers from Acacia decurrens Willd (Wattle Wood)*. Indian Forest Bull. No. 195. R. V. Bhat and H. K. Kaushik. Manager of Publications, Delhi, 1955. 10 pp. 1s. 3d.

Old Akkadian Inscriptions in Chicago Natural History Museum. Texts of legal and business interest. Fieldiana: Anthropology, vol. 44, No. 2. Ignace J. Gelb. 177 pp. \$5. *Revision of the Hawaiian Members of the Genus Tetraplasandra A. Gray.* Fieldiana: Botany, vol. 29, No. 2. Earl Edward Sherff. 93 pp. \$1.50. Chicago Natural History Museum, Chicago, 1955.

Statistics of State School Systems: Organization, Staff, Pupils, and Finances, 1951-52. Chapter 2, Biennial Survey of Education in the United States, 1950-52. Samuel Schloss and Carol Joy Hobson. U.S. Office of Education, Washington, 1955 (Order from Supt. of Documents, GPO, Washington 25). 105 pp. \$0.35.

Efficiency and Selectivity of Commercial Fishing Devices Used on the Mississippi River. No. 4. William C. Starrett and Paul G. Barnickol. 41 pp. The Survey, Urbana, Ill., 1955.