

ton University have made a foremost contribution, has provided a large reservoir of new information and led to many new or revised interpretations.

The general concepts and various theoretical and empirical relationships pertaining to dielectric constant, loss, and dipole moment are discussed in the first two chapters. Although this treatment is necessarily brief and rather noncritical, the reader will find it well documented with references to the original literature and to other recent textbooks. The next four chapters are devoted to a consideration and interpretation of data on the dielectric constant of and dielectric loss in a variety of liquid and solid systems that represent varied types of behavior. The chapter on solids, for example, contains a discussion of polar and nonpolar crystalline solids, ionic crystals, glasses, polymers, ferroelectrics, and electrets. Following a short chapter on methods of measuring dielectric constant and loss are six chapters on dipole moments and their relationship to molecular structure. The various classes of inorganic, organic, and organometallic compounds are treated in systematic fashion. Two concluding chapters deal with amino acids and proteins and with atomic and electronic polarization.

The book appears to be well organized, adequately indexed, and relatively free from typographical errors. It can be recommended for those who are interested in a lucid account of the application of dielectrics to the problems of structural chemistry. Its reference value to the student and research worker alike is considerably enhanced by the inclusion of many figures and tables and by nearly 1500 literature citations.

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**Arctic Research.** The current status of research and some immediate problems in the North American Arctic and Subarctic. Spec. Publ. No. 2 of The Arctic Institute of North America (reprinted from *Arctic*, vol. 7, Nos. 3 and 4, pages 113-366). Diana Rowley, Ed. Arctic Institute of North America, Montreal, Canada, 1955. 261 pp. Illus. \$3.50; members, \$3.

This is a collection of research papers in the physical, biological, and social sciences about the arctic and subarctic of North America. The principal topics covered in the physical sciences are meteorology, geology and geomorphology, glaciology, permafrost, geophysical research and exploration, the ionosphere, geodetic investigations, oceanography, tidal data, and sea ice; topics in the biological sciences are limnology, marine

ecology, botany, soil resources and agriculture, wildlife research, invertebrate zoology, entomology, and biological research; topics in the social sciences are archeological research, human ecology, human geographic research, settlement and transportation, and cold acclimatization in the Eskimo. All articles have bibliographies; lists of field and library projects sponsored by the Arctic Institute are included. There is an index and a folding map inside the back cover.

## New Books

*The Technique of Operative Surgery*, vol. 1, *The Operations of the Billroth II Type* (in three languages). Raimund Wittmoser. English translation by John C. Foster; French translation by A. Jost. Maudrich, Vienna, 1956. 350 pp. \$12.84.

*Mechanical Engineering Practice*. A laboratory reference text. Charles F. Shoop and George L. Tuve. McGraw-Hill, New York, ed. 5, 1956. 471 pp. \$7.

*Expanding Universes*. E. Schrodinger. Cambridge University Press, Cambridge, 1956. 93 pp. \$3.50.

*Statistics, A New Approach*. W. Allen Wallis and Harry V. Roberts. Free Press, Glencoe, Ill., 1956. 646 pp. \$6.

*The Laws of Nature*. R. E. Peierls. Scribner's, New York, 1956. 284 pp. \$4.50.

*Essentials of Quantitative Analysis*. An introduction to the basic unit operations. A. A. Benedetti-Pichler. Ronald, New York, 1956. 666 pp. \$15.

*Les Mécanismes cérébraux de la prise de conscience*. Neuropsychologie, psychanalyse, et psychologie animale. Paul Chaudard. Masson, Paris, 1956. 240 pp. F. 1300.

*St. Paul's Journeys in the Greek Orient*. Studies in Biblical Archaeology No. 4. Henri Metzger. Philosophical Library, New York, 1955. 75 pp. \$2.75.

*Rapid Calculations*. A. H. Russell. Emerson Books, New York, 1956. 287 pp. \$2.95.

*Introduction to Plasticity*. Aris Phillips. Ronald, New York, 1956. 230 pp. \$7.

*The Americana Annual, 1956*. An encyclopedia of the events of 1955. Lavinia P. Dudley and John J. Smith. Americana Corp., New York, 1956. 866 pp.

*XIVth International Congress of Pure and Applied Chemistry*. Main congress lectures and lectures in the sections. Birkhäuser, Basel, Switzerland, 1955. 287 pp. F. 32.

*Radiation Biology*, vol. III, *Visible and Near-Visible Light*. Alexander Hollaender, Ed. McGraw-Hill, New York, 1956. \$10.

*General Botany*. William T. Taylor and Richard J. Weber. Van Nostrand, Princeton, N.J., 1956. 376 pp. \$5.75.

*The Prevention of Cruelty to Children*. Leslie George Housden. Philosophical Library, New York, 1956. 406 pp. \$7.50.

*World Symposium on Applied Solar Energy, Proceedings*. Held at Phoenix, Ariz., 1-5, Nov. 1955. Sponsored by Association for Applied Solar Energy, Stanford Research Institute, and University of Arizona. Association for Applied Solar Energy, Phoenix, Ariz., 1956. 304 pp. \$5.

*Noradrenaline*. Chemistry, physiology, pharmacology and clinical aspects. U. S. von Euler. Thomas, Springfield, Ill., 1956. 382 pp. \$11.50.

*An Outline of Social Psychology*. Muzafer Sherif and Carolyn W. Sherif. Harper, New York, rev. ed., 1956. 792 pp. \$6.

*Police Drugs*. Jean Rolin; translated by Laurence J. Bendit. Appendix on *Narcosis* by Edward V. Saher. Philosophical Library, New York, 1956. 194 pp. \$4.75.

*The New Psychology for Leadership*. Based on researches in group dynamics and human relations. Donald A. Laird and Eleanor C. Laird. McGraw-Hill, New York, 1956. 226 pp. \$4.

*Psychoanalysis and Psychotherapy*. Developments in theory, technique, and training. Franz Alexander. Norton, New York, 1956. 299 pp. \$4.75.

*Wonder World of Microbes*. Madeleine P. Grant. Whittlesey House, McGraw-Hill, New York, 1956. 160 pp. \$2.75.

*Trigonometrical Series*. Antoni Zygmund. Chelsea, New York, ed. 2, 1952. 329 pp. Cloth, \$4.95; paper, \$1.50.

*Tables of Weber Parabolic Cylinder Functions*. Computed by Scientific Computing Service Limited. Mathematical introduction by J. C. P. Miller. Her Majesty's Stationery Office, London, 1955 (order from British Information Service, New York). 233 pp. \$11.68.

*Surface Area*. Lamberto Cesari. Princeton University Press, Princeton, N.J., 1956. 595 pp. \$8.50.

*The World of Plant Life*. Clarence J. Hylander. Macmillan, New York, ed. 2, 1956. 653 pp. \$8.95.

*Man, His Life, His Education, His Happiness*. A. Da. Silva Mello (translated from the Portuguese by M. B. Fierz). Philosophical Library, New York, 1956. 729 pp. \$6.

*Modern Chemical Processes*. A series of articles describing chemical manufacturing plants. vol. 4. Editors of *Industrial and Engineering Chemistry* and the technical staffs of the cooperating organizations. Reinhold, New York; Chapman & Hall, London, 1956. 202 pp. \$5.

*Handbuch der Laplace-Transformation*, vol. II, *Anwendungen der Laplace-Transformation*. Gustav Doetsch. Birkhäuser, Basel-Stuttgart, 1955. 436 pp. DM. 52.

*Faculty Requirements and Standards in Collegiate Schools of Business*. Proceedings of a Conference on Professional Education for Business held 27-29 Oct. 1955 at Arden House, Harriman Campus of Columbia University. American Association of Collegiate Schools of Business, New York, 1955. 216 pp.

*Geometrical Optics*. L. C. Martin. Philosophical Library, New York, 1956. 215 pp. \$7.50.

*Germanium Diodes*. S. D. Boon. Philips Technical Library, Eindhoven, Netherlands, 1956. 85 pp.

*Genetics*. The modern science of heredity. Edward O. Dodson. Saunders, Philadelphia, 1956. 329 pp.

*Chemical Applications of Spectroscopy*, vol. IX of *Technique of Organic Chemistry*. W. West, Ed. Interscience, New York, 1956. 787 pp. \$15.