



RESEARCH BIOCHEMICALS

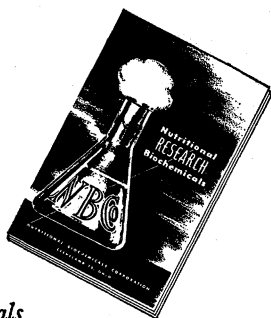
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Miscellaneous Publications

Annual Report of Scientific Works from the Faculty of Science, Vol. I for 1952. Nakanoshima, Osaka, Japan: Osaka University, 1953, 122 pp. Illus.

Atomic Power Development and Private Enterprise. Hearings before the Joint Committee on Atomic Energy, Congress of the United States, 83rd Congress, First Session. Washington 25, D. C.: Government Printing Office, 1953. 649 pp.

Biological Transformations of Starch and Cellulose. Biochemical Society Symposia No. 11. R. T. Williams, Ed. New York: Cambridge Univ. Press, 1953. 84 pp. Illus. \$2.25.

Cambridge Elementary Statistical Tables. D. V. Lindley and J. C. P. Miller. New York: Cambridge Univ. Press, 1953. 35 pp. \$1.00.

Conservation in the Americas, Nos. 13-14. Annette L. Flugger, Ed. Washington, D. C.: Pan American Union, 1953. 54 pp.

Electrophoresis Bibliography. Compiled by Charles L. Schuetzler; Alfred Henley, Ed. Silver Spring, Md.: American Instrument Co., Inc., 1953. 228 pp. \$10.00.

Employment Outlook for Physicists. U. S. Dept. of Labor, Bureau of Labor Statistics, Bull. No. 1144, Occupational Outlook Series. Washington 25, D. C.: Government Printing Office, 1953. 24 pp. Illus. 25¢.

Forest Lepidoptera of Southern Ontario and Their Parasites. Henri Raizenne. Ottawa, Canada: Division of Forest Biology, Science Service, Canadian Department of Agriculture, 1952. 277 pp.

Hunting with the Microscope. A beginner's guide to exploring the micro-world of plants and animals. Gaylord Johnson. New York: Sentinel Books, 1953. 131 pp. Illus. \$.75.

The Miocene and Pleistocene Lagomorpha of East Africa. Fossil Mammals of Africa, No. 6. D. G. MacInnes. London, Eng.: British Museum of Natural History, 1953. 32 pp. Illus. 10s.

Oral Sugar Clearance: Its Influence on Dental Caries Activity. *Odontologisk Revy*, Vol. 3, Suppl. 1, 1952. Claes Lundqvist. Lund, Sweden: CWK Gleerup, 1952. 121 pp. Illus.

Report on the Wenner-Gren Foundation's Activities for the Year Ended January 31, 1953. New York 21, N.Y.: Wenner-Gren Foundation, 1953. 87 pp. Illus.

The Rockefeller Foundation, Annual Report for 1952. New York: Rockefeller Fdn., 1953. 465 pp. Illus.

Rural Health: Annotated List of Selected References. Washington, D.C.: Bureau of Agricultural Economics, U.S. Department of Agriculture, 1953. 83 pp.

Scientific and Technical Journals of East and South East Asia. (Hong Kong, Japan, Indonesia, Macao, Malaya, North Borneo, The Philippines, Sarawak, Thailand, Vietnam). 2nd ed. United Nations Bldg., Manila, Philippines: South East Asia Science Cooperation Office, 1953. 233 pp.

Seventh Annual Report, 1951-52. Pretoria, Union of South Africa: South African Council for Scientific and Industrial Research, 1952. 121 pp. Illus.

Seventh Annual Report of the Oak Ridge Institute of Nuclear Studies, June 30, 1953. Oak Ridge, Tenn.: U.S. Atomic Energy Commission, 1953. 61 pp. Illus.

World Federation for Mental Health. Annual report with proceedings of the fifth annual meeting, 1952. 19 Manchester St., London, W.1, Eng.: WFMH Secretariat, 1953. 111 pp. 3/6d.

in the field of public health and in wildlife and zoological problems, due unquestionably to the stimulating activity of the organizations mentioned above.

Papers covering original research are not confined to these two subjects but are rather widely scattered throughout the book. This book will be valuable to all students working in or proposing to work in Alaska, since it contains reports of progress and historical résumés of previous research which will provide a good starting point for students in many fields.

IRA N. GABRIELSON

*Wildlife Management Institute
Washington, D. C.*

Small Particle Statistics. Gustav Herdan; with a guide to the experimental design of particle size determinations by M. L. Smith. Amsterdam-Houston: Elsevier, 1953. 520 pp. Illus. \$12.00.

The subtitle of this book is "An account of statistical methods for the investigation of finely divided materials—with a guide to the experimental design of particle size determinations." This last guide (pt. v) is written by M. L. Smith and gives a comprehensive survey of the most important methods for determining the distribution of particle sizes with special reference to the errors which are specific to the different methods. The following methods are discussed in slightly more detail: the microscope method (ch. 18), sedimentation methods (ch. 19), permeability method (ch. 20), photo-extinction method (ch. 21), and adsorption methods (ch. 22).

The main part of the book is devoted to a discussion of the statistical aspects of particle size determinations. This subject plays an important role in cement, glass, ceramic, rubber, and linoleum industries, industries dealing with polymerized materials, soil science, and sedimentary petrography. The author has tried, and as far as I can judge, succeeded in developing his subject without assuming any prior knowledge either of statistics or of advanced mathematics.

Part I of the book deals with the determination of the fineness of solids. Chapter headings are: Particles in the Sieve and Sub-Sieve Size Range; Some Fundamental Concepts of Statistics; The Units of Particle Statistics and the Principles of Particle Size Measurement; The Distributions of Particle Sizes and Their Averages; Sampling Procedures for Particle Size Determinations; Some Standard Forms of the Distribution Function; Graphical Representation; Statistical Testing and Analysis of Differences Between Determination Results.

Part II describes the technological importance of the fineness of solids with the following chapter headings: Methods for Ascertaining the Relations Between Variable Characteristics of Materials; Testing the Dependence of Properties of Materials upon Particle Size by Correlation Methods; Fundamental Relations Between Particle Size and Other Characteristics of Materials as Particulate Matter; Physical and Chemical Properties of Materials in Their Dependence upon the Characteristics of These Materials as Particulate Universes.

Part III discusses how a specific fineness (ch. 13) and

homogeneity (ch. 14) can be attained. In chapter 15 the inhomogeneity of polymers is discussed.

Part IV is entitled Principles of Statistics of Coarse Disperse Systems. Chapter 16 discusses the principles of statistical theory and chapter 17 the statistical design of investigations of particulate materials.

The book is extremely well written and seems to cover a large amount of ground. It is difficult to single out particular chapters but the most interesting, and probably the most useful, chapters seem to me to be the ones dealing with a discussion of the relative merits of different methods of determining particle size distributions (ch. 8), the chapter discussing correlation methods (ch. 10), the chapter describing how the molecular weight distribution curve of polymers can be found (ch. 15), and the chapter dealing with the statistical design of experiments (ch. 17). By far the weakest chapter to my mind is chapter 16 where the discussion lacks the sharpness and precision which characterizes the rest of the book.

It seems that the author has succeeded in producing a handbook for people working in the field and both he and the publishers can be congratulated. The production is excellent and extensive indexes and a list of principal symbols further enhance the usefulness of this volume.

D. TER HAAR

*Department of Natural Philosophy
University of St. Andrews, Scotland*

New Books

Professional People in England. Roy Lewis and Angus Maude. Cambridge, Mass.: Harvard Univ. Press, 1953. 284 pp. \$4.00.

Astronomical Photoelectric Photometry. Symposium presented on December 31, 1951, at the Philadelphia meeting of the AAAS. Frank Bradshaw Wood, Ed. Washington, D.C.: American Association for the Advancement of Science, 1953. 141 pp. Illus. \$3.75.

A Brief Survey of Modern Algebra. Shorter version of *A Survey of Modern Algebra*. Garrett Birkhoff and Saunders MacLane. New York: Macmillan, 1953. 276 pp. Illus. \$4.75.

Ideologie und Forschung in der Sowjetischen Naturwissenschaft. Arnold Buchholz. Stuttgart, Germany: Deutsche Verlags, 1953. 126 pp.

Relativity and Reality. A re-interpretation of anomalies appearing in the theories of relativity. E. G. Barter. New York: Philosophical Library, 1953. 131 pp. \$4.75.

Primates: Comparative Anatomy and Taxonomy; Vol. I: Strepsirhini. W. C. Osman Hill. New York: Interscience; Edinburgh: University Press, 1953. 798 pp. Illus. + plates. \$12.50.

Physical Chemistry: For Students of Biology and Medicine. 4th ed. David Ingersoll Hitchcock. Boston: Little, Brown, 1953. 266 pp. Illus. \$5.00.

Ways of Mammals: In Fact and Fancy. Clifford B. Moore. New York: Ronald Press, 1953. 273 pp. \$3.50.

Man, Time and Fossils: The Story of Evolution. Ruth Moore. New York: Knopf, 1953. 411 pp. + index. Illus. + plates. \$5.75.

Notions Élémentaires de Chimie Générale: A la Lumière des Théories Modernes. Paul Pascal. Paris: Masson, 1953. 550 pp. Illus. + plates. 3,600 fr.

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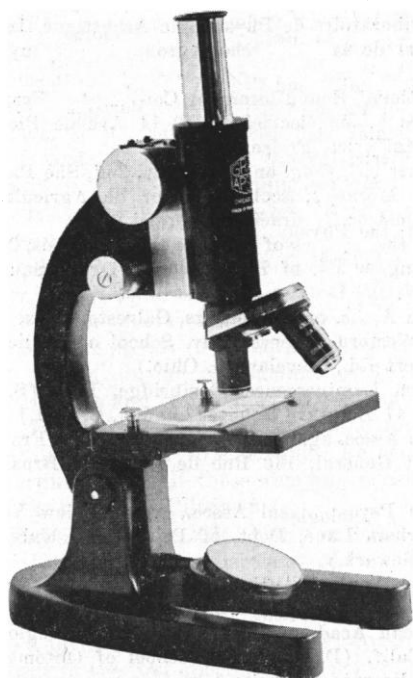
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By WALTER E. ROGERS, University of Washington. McGraw-Hill Series in Electrical and Electronic Engineering. 333 pages, \$7.50

Here is a well-integrated, carefully written basic text for courses in field theory or electromagnetics as given to junior-senior electrical engineers. The purpose of the book is first to present Maxwell's equations as a logical summary of some truly analytical experience in solving the problems of electric and magnetic fields by vector methods, and second, to provide an introduction to potential theory and boundary-value problems which will form a foundation for the concept of vector potential. No knowledge of vector analysis is assumed.

ELECTRICITY AND MAGNETISM

By EDSON R. PECK, Northwestern University. 476 pages, \$7.50

This intermediate text provides an unusually careful, clear, and critical discussion of the underlying principles of electromagnetism, including both field and circuit theory, and goes as far as simple applications of the Maxwell equations to electromagnetic waves and radiations. A background in general physics and elementary calculus is assumed. Although primarily theoretical, the book maintains contact with the laboratory by means of numerous practical problems.

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Meetings & Conferences

March

- 24-1. American Chemical Soc., 125th national, Kansas City, Mo. (R. M. Warren, 1155 16 St., NW, Washington, D.C.)
- 25-27. Alpha Epsilon Delta, 10th national, Bloomington, Ind. (M. L. Moore, 7 Brookside Circle, Bronxville, N.Y.)
- 25-27. Optical Soc. of America, spring, New York City. (A. C. Hardy, Massachusetts Institute of Technology, Cambridge 39.)
- 25-27. Symposium on the Origins of Resistance to Drugs, Washington, D.C. (M. G. Sevag, Dept. of Microbiology, School of Medicine, Univ. of Pennsylvania, Philadelphia 4.)
- 26-28. American Assoc. of Physical Anthropologists, annual, Yellow Springs, Ohio. (J. L. Angel, Jefferson Medical College, 307 S. 11 St., Philadelphia 7, Pa.)
- 27-28. American Psychosomatic Soc., 11th annual, New Orleans, La. (APS office, 551 Madison Ave., New York 22, N.Y.)

April

- 1-2. American Heart Assoc., 30th annual, Chicago, Ill. (R. Betts, AHA, 44 E. 23 St., New York 10, N.Y.)
- 1-3. National Science Teachers Assoc., annual, Chicago, Ill. (R. H. Carleton, 1201 16 St., NW, Washington 6, D. C.)
- 2-3. American Assoc. of University Professors, Buffalo, N. Y. (R. E. Himstead, 1785 Massachusetts Ave., NW, Washington 6, D. C.)
- 2-3. Assoc. of Geology Teachers, New England Section, 1st annual, Burlington, Vt. (C. G. Doll, Dept. of Geology, Univ. of Vermont, Burlington.)
- 3-10. Pan American Cong. of Veterinary Medicine, 2nd, São Paulo, Brazil. (J. S. Veiga, Rua Pires da Mota 159, São Paulo.)
- 5-8. Symposium on Orthopteran Acoustics, Jouy-en-Josas, France. (Laboratoire de Physiologie Acoustique, Institut National de la Recherche Agronomique, Jouy-en-Josas.)
- 5-10. International Sound-Recording Conf., Paris, France. (Société des Radio-electriciens, 10-14 Avenue Pierre-Larousse, Malakoff, France.)
- 5-11. Pan American Cong. on Agronomy, 2nd, São Paulo, Brazil. (J. Moraes, Escola Superior de Agricultura "Luiz de Queiroz," Piracicaba, Brazil.)
- 6-9. Conf. on the Physics of Particle Size Analysis, Nottingham, Eng. (Inst. of Physics, 47 Belgrave Square, London S.W. 1.)
- 7-9. American Assoc. of Anatomists, Galveston, Tex. (N. L. Hoerr, Western Reserve Univ. School of Medicine, 2109 Adelbert Rd., Cleveland 6, Ohio.)
- 7-10. Conf. on Luminescence, Cambridge, Eng. (S. T. Henderson, 47 Belgrave Square, London, S.W. 1.)
- 8-9. European Assoc. against Poliomyelitis, Paris, France. (Secretariat General, 130 Rue de Linthout, Brussels, Belgium.)
- 9-10. Eastern Psychological Assoc., annual, New York, N. Y. (Gorham Lane, Dept. of Psychology, Univ. of Delaware, Newark.)
- 9-11. Soc. for Applied Anthropology, New York, N.Y. (Mrs. E. Purcell, 61 W. 55 St., New York 19.)
- 10-11. American Acad. of Optometry, western regional, Berkeley, Calif. (D. B. Carter, School of Optometry, Univ. of California, Berkeley.)