

ters) on which full references are listed. This is a useful feature in a monograph which naturally contains many references.

Cordfunke has accomplished a needed updating, critical review, and drawing together of the present state of uranium chemistry and its application to technology. A thorough review of the literature (especially European) has provided numerous references for more detailed study. This book provides in concentrated form a wealth of up-to-date information for those pure or applied scientists who are interested in an element that will no doubt have a great impact on the future of mankind. An authoritative addition has been made to the reference library of the uranium chemist.

FRANK M. SCHEITLIN
Isotopes Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee

New Reviews

Advances in Human Genetics. Vol. 1. HENRY HARRIS and KURT HIRSCHHORN, Eds. Plenum, New York, 1970. xii, 340 pp., illus. \$19.50.

Reviews undoubtedly are most useful in those fields to which multiple and diverse disciplines contribute, and particularly in those fields which are on a logarithmic growth curve. Certainly human genetics satisfies this description, and fortunately there has been no shortage of collected reviews. The following are a few of those in the English language: L. S. Penrose and H. L. Brown, Eds., *Recent Advances in Human Genetics* (1961); *British Medical Bulletin* (1961, 1969); A. G. Steinberg and A. G. Bearn, Eds., *Progress in Medical Genetics* (1961, 1962, 1964, 1965, 1967, 1970); A. E. H. Emery, Ed., *Modern Trends in Human Genetics* (1970).

The newest comer to the field of collected reviews contains five contributions in its first volume. John H. Edwards gives a highly complex discussion of the analysis of pedigree data; Orlando J. Miller reviews autoradiography in human cytogenetics; Hugh Fudenberg and Noel L. Warner discuss the genetics of immunoglobulins in mouse, rabbit, and man; Charles R. Sriver and Peter Hechtman review the genetics of membrane transport in man; and Jean Frézal and Jean Rey give a review of the genetics of disorders of

intestinal digestion and absorption. Thus the major areas of human genetics—biochemical genetics, cytogenetics, immunogenetics, statistical and population genetics, clinical genetics—are all represented. The contributors were well selected and they have lived up to their reputations. It is hoped that the high quality of this initial volume will be maintained in future ones.

VICTOR A. MCKUSICK
Division of Medical Genetics, Johns Hopkins Hospital, Baltimore, Maryland

Public Health Monograph

Syphilis and Other Venereal Diseases. WILLIAM J. BROWN, JAMES F. DONOHUE, NORMAN W. AXNICK, JOSEPH H. BLOUNT, NEAL H. EWEN, and OSCAR G. JONES. Harvard University Press, Cambridge, Mass., 1970. xxii, 242 pp., illus. \$6. American Public Health Association Vital and Health Statistics Monographs.

This volume begins with an excellent account of the history of syphilis and the evolution of modern treatment, summarizing many of the longer discussions of the subject. There are chapters on the diagnosis and treatment of syphilis, gonorrhea, and the minor venereal diseases, apparently intended as background material for nonphysician readers. This portion of the book contains a section dealing with relapse in syphilis which might be questioned by modern syphilologists. A chapter on casefinding control measures outlines the development of the methods now in use in the United States. There is an excellent chapter on venereal disease in the military, a subject not often discussed in such treatises. A major portion of the book is devoted to morbidity and mortality. The work of Boeck and Bruusgaard is reviewed in detail. Syphilis mortality in both the congenital and late stages is discussed. The findings are broken down according to age, sex, and geographic distribution. This discussion is documented by approximately 50 pages of statistics on morbidity and mortality in the United States between 1941 and 1966.

This book should be of value to health officers, venereal disease control officers, social workers, and paramedical personnel in all branches of health control.

BRUCE WEBSTER
New York Hospital, New York City

Books Received

Advances in Cancer Research. Vol. 13. George Klein, Sidney Weinhouse, and Alexander Haddow, Eds. Academic Press, New York, 1970. xiv, 440 pp., illus. \$22.

Advances in Enzymology and Related Areas of Molecular Biology. Vol. 33. F. F. Nord, Ed. Interscience (Wiley), New York, 1970. viii, 596 pp., illus. \$21.50.

Advances in Heat Transfer. Vol. 6. James P. Hartnett and Thomas F. Irvine, Jr., Eds. Academic Press, New York, 1970. xii, 578 pp., illus. \$26.

Advances in Hydrosience. Vol. 6. Ven Te Chow. Academic Press, New York, 1970. xvi, 260 pp., illus. \$16.

Advances in Lipid Research. Vol. 8. Rodolfo Paoletti and David Kritchevsky, Eds. Academic Press, New York, 1970. xviii, 470 pp., illus. \$23.

Advances in Machine Tool Design and Research. Proceedings of a conference, Manchester, England, September 1969. S. A. Tobias and F. Koenigsberger, Eds. Pergamon, New York, 1970. viii, 736 pp., illus. \$50.

Advances in Metabolic Disorders. Vol. 4. Rachmiel Levine and Rolf Luft, Eds. Academic Press, New York, 1970. xvi, 364 pp., illus. \$18.

Advances in Quantum Chemistry. Vol. 5. Per-Olov Löwdin. Academic Press, New York, 1970. xvi, 304 pp., illus. \$17.

Die amerikanische Wissenschaftslobby. Zum sozialen und politischen Wandel des Wissenschaftssystems im Prozess der Forschungsplanung. Peter Weingart. Bertelsmann Universitätsverlag, Düsseldorf, 1970. 256 pp., illus. DM 28. Wissenschaftstheorie, Wissenschaftspolitik, Wissenschaftsgeschichte, Band 13.

Analytical Chemistry of Zirconium and Hafnium. Anil K. Mukherji. Pergamon, New York, 1970. xiv, 282 pp., illus. \$12. International Series of Monographs in Analytical Chemistry, vol. 40.

Animal Behavior. V. G. Dethier and Eliot Stellar. Prentice-Hall, Englewood Cliffs, N.J., ed. 3, 1970. viii, 152 pp., illus. Cloth, \$6.95; paper, \$3.25. Foundations of Modern Biology Series.

Annual Reports in Medicinal Chemistry, 1969. Cornelius K. Cain, Scott Childress, Barry Bloom, Koert Gerzon, Irwin Pachter, Charles Smith, and Joseph Cannon, Eds. Academic Press, New York, 1970. xxiv, 378 pp. Paper, \$9.

Annual Review of Astronomy and Astrophysics. Vol. 8. Leo Goldberg, David Layzer, and John G. Phillips, Eds. Annual Reviews, Palo Alto, Calif., 1970. x, 496 pp., illus. \$10.

Applications of Decision Tables. A Reader. Herman McDaniel, Ed. Brandon/Systems, Princeton, N.J., 1970. x, 226 pp., illus. \$9.95.

Applications of Nuclear Physics. J. H. Fremlin. Hart, New York, 1970. xiv, 364 pp., illus. \$15.

An Approach to Physical Science. Supplementary Chapters. PSNS Project Staff. Wiley, New York, 1970. x, 166 pp., illus. Paper, \$3.95.

(Continued on page 1342)

BOOKS RECEIVED

(Continued from page 1296)

Archaeological Fakes. Adolf Rieth. Translated from the German edition (Tübingen, 1967) by Diana Imber. Praeger, New York, 1970. 184 pp., illus. \$7.50.

Aspects of Prehistory. Grahame Clark. University of California Press, Berkeley, 1970. xiv, 162 pp., illus. + plates. \$5.95.

Assay of Protein and Polypeptide Hormones. H. Van Cauwenberge and P. Franchimont. Pergamon, New York, 1970. vi, 244 pp., illus. + plates. \$13.50. International Series of Monographs in Pure and Applied Biology. Modern Trends in Physiological Sciences, vol. 33.

Atoms and Powers. An Essay on Newtonian Matter-Theory and the Development of Chemistry. Arnold Thackray. Harvard University Press, Cambridge, Mass., 1970. xxvi, 326 pp., illus. \$12.

Basic Concepts in Anatomy and Physiology. A Programmed Presentation. Catherine Parker Anthony. Mosby, St. Louis, Mo., ed. 2, 1970. vi, 158 pp., illus. Spiral bound, \$4.85.

Basic Laser Raman Spectroscopy. Jack Loader. Heyden, New York, 1970 (U.S. distributor, Sadtler Research Lab., Philadelphia, Pa.). x, 106 pp., illus. Paper, \$4.50.

Batteries and Energy Systems. C. L. Mantell. McGraw-Hill, New York, 1970. xiv, 222 pp., illus. \$14.

The Beagle as an Experimental Dog. Allen C. Andersen and Loraine S. Good,

Eds. Iowa State University Press, Ames, 1970. xiv, 616 pp., illus. + plates. \$17.50.

Beyond Economics. Essays on Society, Religion and Ethics. Kenneth E. Boulding. University of Michigan Press, Ann Arbor, 1970. xii, 308 pp., illus. Paper, \$2.95. Reprint of the 1968 edition.

Black Mesa. Survey and Excavation in Northeastern Arizona, 1968. George J. Gumerman. Prescott College Press, Prescott, Ariz., 1970. xvi, 128 pp., illus. Paper, \$4.75. Prescott College Studies in Anthropology No. 2.

Body Fluid Replacement in the Surgical Patient. A symposium in honor of George H. Humphreys, II, New York, May 1969. Grune and Stratton, New York, 1970. xvi, 374 pp., illus. \$25.

Brain-Damaged Children. A Modality-Oriented Exploration of Performance. Cynthia P. Deutsch and Florence Schumer. Brunner/Mazel, New York, 1970. x, 162 pp., illus. \$7.95.

Carbonate Rocks. Limestones and Dolomites. Lucien Cayeux. Translated from the French edition (Paris, 1935) and updated by Albert V. Carozzi. Hafner, Darien, Conn., 1970. xviii, 506 pp., illus. \$37.50. Sedimentary Rocks of France.

Cardiology. Current Topics and Progress. Symposia, Jerusalem and Tel Aviv, September 1968. Marcel Eliakim and Henry N. Neufeld, Eds. Academic Press, New York, 1970. 366 pp., illus. \$15.

Carmichael's Manual of Child Psychology. Paul H. Mussen, Ed. Wiley, New York, ed. 3, 1970. Vol. 1 (xiv, 1520 pp., illus.); vol. 2 (xiv, 872 pp., illus.). \$40.

Carte pédologique de France à moyenne échelle. Vichy, L-15. J.-C. Favrot. Centre National de Recherches Agronomiques, Versailles, 1969. 158 pp., illus. + map. Paper, 53.75 F.

Case Studies in Experimental Engineering. A Programmed Approach. Hilbert Schenck, Jr. McGraw-Hill, New York, 1970. xii, 172 pp., illus. Spiral bound, \$8.95.

Chains of Opportunity. System Models of Mobility in Organizations. Harrison C. White. Harvard University Press, Cambridge, Mass., 1970. xvi, 418 pp., illus. \$15.

Chemical Background for the Biological Sciences. Emil H. White. Prentice-Hall, Englewood Cliffs, N.J., ed. 2, 1970. xii, 194 pp., illus. Cloth, \$6.95; paper, \$3.25. Foundations of Modern Biology Series.

The Chemistry of Alkenes. Vol. 2. Jacob Zabicky, Ed. Interscience (Wiley), New York, 1970. xvi, 670 pp., illus. \$31. The Chemistry of Functional Groups.

Children and Science. Lazer Goldberg. Scribner's, New York, 1970. xii, 148 pp. \$6.95. Scribner's Guides for Parents and Teachers.

Circuit Theory. An Introduction to the State Variable Approach. Ronald A. Rohrer. McGraw-Hill, New York, 1970. xii, 314 pp., illus. \$14.50. Series in Electronic Systems.

Classical Fields, Particles, and the Theory of Relativity. William R. Davis. Gordon and Breach, New York, 1970. xxiv, 396 pp. \$12; to libraries, \$27.50.

La Climatisation. Marcel Roubinet. Presses Universitaires de France, Paris,

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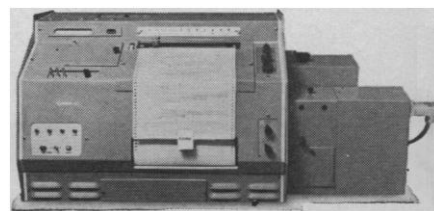
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1970. 136 pp., illus. Paper. "Que Sais-Je?," No. 1387.

Clinical Electrocardiography and Computers. Cesar A. Caceres and Leonard S. Dreifus, Eds. Academic Press, New York, 1970. xxxii, 472 pp., illus. \$18.50.

Clustering Phenomena in Nuclei. A conference, Bochum, Germany, July 1969. International Atomic Energy Agency, Vienna, 1969. xii, 356 pp., illus. Paper, \$10.

Colorimetric Methods of Analysis. Including Photometric Methods. Vol. 4AA. Foster Dee Snell and Cornelia T. Snell. Van Nostrand Reinhold, New York, 1970. xiv, 626 pp., illus. \$24.50.

The Comparative Anatomy and Histology of the Cerebellum from Monotremes through Apes. Olof Larsell. Jan Jansen, Ed. University of Minnesota Press, Minneapolis, 1970. viii, 270 pp., illus. \$16.

Comparative Physiology of Thermoregulation. Vol. 1, Invertebrates and Non-mammalian Vertebrates. G. Causey Whitow. Academic Press, New York, 1970. x, 334 pp., illus. \$17.50.

Computer Processing in Communications. Vol. 19. Proceedings of a symposium, New York, April 1969. Polytechnic Press, Brooklyn, N.Y., 1970. xxii, 850 pp., illus. \$20. Polytechnic Institute of Brooklyn Microwave Research Institute Symposia Series.

Computer Programs for Computational Assistance in the Study of Linear Control Theory. James L. Melsa. McGraw-Hill, New York, 1970. iv, 132 pp., illus. Paper, \$3.95.

Computer Simulation in Geology. John W. Harbaugh and Graeme Bonham-Carter. Wiley-Interscience, New York, 1970. xiv, 576 pp., illus. \$24.95.

Concepts of Pest Management. Proceedings of a conference, Raleigh, N.C., March 1970. R. L. Rabb and F. E. Guthrie, Eds. North Carolina State University, Raleigh, 1970. xii, 242 pp., illus. Paper, \$4.

Confessions of an American Scholar. Simon O'Toole. University of Minnesota Press, Minneapolis, 1970. viii, 112 pp. Cloth, \$5.95; paper, \$1.95.

Contemporary Readings in Sport Psychology. William P. Morgan, Ed. Thomas, Springfield, Ill., 1970. xx, 460 pp., illus. \$19.

The Correspondence of Henry Oldenburg. Vol. 7, 1670-1671. Edited and translated by A. Rupert Hall and Marie Boas Hall. University of Wisconsin Press, Madison, 1970. xxx, 600 pp. + plates. \$20.

Critical Path Planning. Present and Future Techniques. Paul Barnetson. Brandon/Systems, Princeton, N.J., 1970. 102 pp., illus. \$6.

Culture and Biological Man. Explorations in Behavioral Anthropology. Eliot D. Chapple. Holt, Rinehart and Winston, New York, 1970. xxii, 346 pp. \$8.95.

Current Topics in Surgical Research. Papers from a meeting, Boston, November 1969. Vol. 2. David B. Skinner and Paul A. Ebert, Eds. Academic Press, New York, 1970. xiv, 568 pp., illus. \$24.

Cytology Automation. Proceedings of a symposium, Cardiff, Wales, October 1968.

D. M. D. Evans, Ed. Livingstone, Edinburgh, 1970 (U.S. distributor, Williams and Wilkins, Baltimore, Md.). xiv, 276 pp., illus. \$12.

Dealing with Data. Arthur J. Lyon. Pergamon, New York, 1970. xviii, 392 pp., illus. Cloth, \$8; paper, \$5.50. The Commonwealth and International Library, Physics Division.

Decontamination of Nuclear Reactors and Equipment. J. A. Ayres, Ed. Ronald, New York, 1970. xviii, 826 pp., illus. \$22.50.

The Dinosaurs. W. E. Swinton. Allen and Unwin, London, 1970. 332 pp., illus. \$11.

Direct Nuclear Reaction Theories. Norman Austern. Wiley-Interscience, New York, 1970. x, 390 pp., illus. \$19.95. Interscience Monographs and Texts in Physics and Astronomy, vol. 25.

Discrete Markov Chains. V. I. Romanovsky. Translated from the Russian by E. Seneta. Wolters-Noordhoff, Groningen, Netherlands, 1970. xii, 410 pp. \$18.65.

Dynamic Hydrology. Peter S. Eagleson. McGraw-Hill, New York, 1970. xviii, 462 pp., illus. \$16.

Dynamics of One-Species Populations of Fishes in Ponds Subjected to Cropping and Additional Stocking. D. Homer Buck and Charles F. Thoits III. State of Illinois Department of Registration and Education, Urbana, 1970. Illus. Paper. Natural History Survey Bulletin, vol. 30, article 2, pp. 69-166.

The Earth. An Introduction to Physical Geology. John Verhoogen, Francis J.

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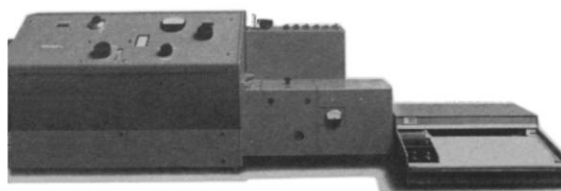
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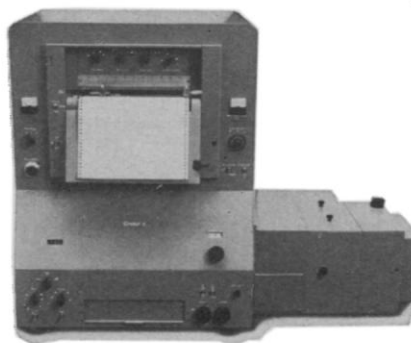
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Turner, Lionel E. Weiss, Clyde Wahrhaftig, and William S. Fyfe, Eds. Holt, Rinehart and Winston, New York, 1970. x, 748 pp., illus. \$13.95.

Ecology of the Subarctic Regions. Ecologie des Regions Subarctiques. A symposium, Helsinki, July-August 1966. UNESCO, Paris, 1970. 364 pp., illus. \$19. Ecology and Conservation.

Economics as a Science. Kenneth E. Boulding. McGraw-Hill, New York, 1970. viii, 158 pp., illus. Paper, \$6.95.

Education in Creative Engineering. Y. T. Li, Ed. M.I.T. Press, Cambridge, Mass., 1970. xxxvi, 386 pp., illus. Paper, \$6.95.

Effective Management of Research and Development. Arthur Gerstenfeld. Addison-Wesley, Reading, Mass., 1970. x, 150 pp., illus. \$7.95.

Electrical Impedance Plethysmography. The Electrical Resistive Measure of the Blood Pulse Volume, Peripheral and Central Blood Flow. Jan Nyboer. Thomas, Springfield, Ill., ed. 2, 1970. xxviii, 390 pp., illus. \$22.

Electrical Probes for Plasma Diagnostics. J. D. Swift and M. J. R. Schwar. Iliffe, London; Elsevier, New York, 1970. x, 334 pp., illus. \$19.50.

Electronic Integrated Circuits and Systems. Franklin C. Fitchen. Van Nostrand Reinhold, New York, 1970. xii, 420 pp., illus. \$12.95. Microelectronics Series.

Engineering Geology in Southern California. Richard Lung and Richard Proctor, Eds. Association of Engineering Geologists, Arcadia, Calif., 1969. 390 pp., illus. \$14. Reprint of the 1966 edition.

Entropy for Biologists. An Introduction to Thermodynamics. Harold J. Morowitz. Academic Press, New York, 1970. xvi, 196 pp., illus. \$6.95.

Essays in Toxicology. Vol. 2. Frank R. Blood, Ed. Academic Press, New York, 1970. xii, 218 pp., illus. \$9.

Essentials for the Technical Writer. Hardy Hoover. Wiley, New York, 1970. viii, 216 pp. \$6.95.

Europeans about Europe. What European Students Know and Expect of the Unification of Europe. A Study in Social Psychology. Petrus-Arsene Cornelis. Swets and Zeitlinger, Amsterdam, 1970. 174 pp., illus. Paper, \$8.

Experimental General Chemistry. George G. Hess and Uno Kask. Barnes and Noble, New York, 1970. xx, 262 pp., illus. Paper, \$2.95. International Textbook Series.

Experiments in Physiology and Biochemistry. Vol. 3, G. A. Kerkut. Academic Press, New York, 1970. xx, 504 pp., illus. \$21.

Family Interaction. Ralph H. Turner. Wiley, New York, 1970. xii, 506 pp., illus. \$10.95.

Family Planning and Abortion in the Socialist Countries of Central and Eastern Europe. A Compendium of Observations and Readings. Henry P. David. The Population Council, New York, 1970. xii, 306 pp., illus. Paper.

Farming Systems of the World. A. N. Duckham and G. B. Masfield. Assisted by R. W. Willey and Kathleen Down. Praeger, New York, 1970. xviii, 542 pp., illus. + plates. \$21.50.

Fell's United States Coin Book. Charles

J. Andrews. Fell, New York, ed. 7, 1970. 156 pp., illus. \$3.95.

Flow in Channels. Robert H. J. Sellin. Gordon and Breach, New York, 1970. x, 150 pp., illus. \$7.50; to libraries, \$16.50. Macmillan Engineering Hydraulics Series.

Free-Radical Chain Reactions. Earl S. Huyser. Wiley-Interscience, New York, 1970. x, 388 pp., illus. \$19.95.

From Idea to Working Model. Ira G. Wilson and Marthann E. Wilson. Wiley, New York, 1970. xxiv, 268 pp., illus. \$12.95. Wiley Series on Systems Engineering and Analysis.

From Unity to Freedom. Renaldo Cutino. Earthly Brothers, New York, 1970. x, 34 pp., illus. Paper, \$2.50.

Fuel Cells. Modern Processes for the Electrochemical Production of Energy. Wolf Vielstich. Translated from the German edition (Weinheim, 1965) by D. J. G. Ives. Wiley-Interscience, New York, 1970. xxii, 502 pp., illus. \$25.

Geography, Marketing, and Urban Growth. Donald F. Milvihill and Ruth Cope Mulvihill. Van Nostrand Reinhold, New York, 1970. viii, 190 pp. Paper, \$2.95. Searchlight Book No. 46.

The Geological Revolution. Charles L. Drake. Oregon State System of Higher Education, Eugene, 1970. 56 pp., illus. Paper, \$2. Condon Lectures.

Global Effects of Environmental Pollution. A symposium, Dallas, December 1968. S. Fred Singer. Springer, New York; Reidel, Dordrecht, Holland, 1970. xii, 218 pp., illus. \$12.

Glossary of Words and Phrases Used in Radiology, Nuclear Medicine and Ultrasound. Prepared from Various Sources for Medical Secretaries, X-Ray Technicians, Medical Students and Residents in Radiology. Lewis E. Etter. Thomas, Springfield, Ill., ed. 2, 1970. xxvi, 356 pp., illus. \$22.50.

Gondwana Stratigraphy. La Estratigrafia del Gondwana. A symposium, Buenos Aires, October 1967. UNESCO, Paris, 1970. xvi, 1174 pp., illus. Paper, \$16. Earth Sciences.

The Great Alaska Earthquake of 1964. Human Ecology. Committee on the Alaska Earthquake of the Division of Earth Sciences National Research Council. National Academy of Sciences, Washington, D.C., 1970. xviii, 510 pp., illus. \$29.50.

Green's Functions. Introductory Theory with Applications. G. F. Roach. Van Nostrand Reinhold, New York, 1970. xii, 280 pp. \$16.95. New University Mathematics Series.

Guide to Uncommon Metals. Eric N. Simons. Hart, New York, 1970. x, 246 pp. Paper, \$3.95.

A Guidebook to Mechanism in Organic Chemistry. Peter Sykes. Wiley, New York, ed. 3, 1970. xii, 302 pp. Paper, \$5.50.

Hallucinogenic Drug Research. Impact on Science and Society. Proceedings of a symposium, Beloit, Wis., October 1969. James R. Gamage and Edmund L. Zerk, Eds. Stash Press, Beloit, 1970. xvi, 140 pp. Paper, \$2.95.

Higher Education in the Fifty States. M. M. Chambers. Interstate, Danville, Ill., 1970. xvi, 452 pp., illus. \$10.

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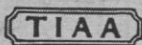
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ceedings of a symposium, Sheffield, September 1969. G. K. Benson and J. G. Phillips, Eds. Cambridge University Press, New York, 1970. xvi, 630 pp., illus. + plates. \$22.50. Memoirs of the Society for Endocrinology, No. 18.

How to Know the Freshwater Algae. G. W. Prescott. Brown, Dubuque, Iowa, 1970. viii, 348 pp., illus. Spiral bound, \$4.50. Pictured-Key Nature Series. Reprint of the 1954 edition.

The Human Body and the Law. A Medico-Legal Study. David W. Meyers. Aldine, Chicago, 1970. xii, 204 pp. \$7.95.

The Hydrated Electron. Edwin J. Hart and Michael Anbar. Wiley-Interscience, New York, 1970. xiv, 268 pp., illus. \$12.95.

Indicators of Social Change. Concepts and Measurements. Eleanor Bernert Sheldon and Wilbert E. Moore, Eds. Russell Sage Foundation, New York, 1968. x, 822 pp., illus. \$15.

Inelastic Behavior of Solids. Battelle Institute Materials Science Colloquia, Columbus and Atwood Lake, Ohio, September 1969. Melvin F. Kanninen, William F. Adler, Alan R. Rosenfield, and Robert I. Jaffee, Eds. McGraw-Hill, New York, 1970. xx, 744 pp., illus. \$44.50. Series in Materials Science and Engineering.

The Innervation of the Vertebrate Heart. Edwin F. Hirsch, Ed. Thomas, Springfield, Ill., 1970. xiv, 210 pp., illus. \$16.50.

Integrated Principles of Zoology. Cleveland P. Hickman. Mosby, St. Louis, Mo., ed. 4, 1970. x, 976 pp., illus. \$10.95.

Interacting Systems in Development. James D. Ebert and Ian M. Sussex. Holt, Rinehart and Winston, New York, ed. 2, 1970. xii, 338 pp., illus. Paper, \$4.95. Modern Biology Series.

Interpretation of Spectra and Atmospheric Structure in Cool Stars. Yoshio Fujita. University of Tokyo Press, Tokyo; University Park Press, Baltimore, Md., 1970. viii, 146 pp., illus. \$10.

An Introduction to the Biology of the Skin. R. H. Champion, T. Gillman, A. J. Rook, and R. T. Sims, Eds. Davis, Philadelphia, 1970. x, 450 pp., illus. + plates. \$15.

Introduction to Contemporary Microeconomics. Vivian Charles Walsh. McGraw-Hill, New York, 1970. xxii, 298 pp., illus. Paper, \$8.95.

An Introduction to Liquid Helium. J. Wilks. Clarendon (Oxford), New York, 1970. x, 166 pp., illus. Paper, \$4.50. Oxford Library of the Physics Sciences.

An Introduction to Metabolic Pathways. S. Dagley and Donald E. Michol-son. Wiley, New York, 1970. xii, 344 pp., illus. \$11.95.

Introduction to Research in Psychopathology. Brendan Maher. McGraw-Hill, New York, 1970. xiv, 206 pp., illus. Paper, \$3.95. Paperback Series in Psychopathology.

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Introductory Mathematical Statistics. Principles and Methods. Erwin Kreyszig. Wiley, New York, 1970. xviii, 470 pp., illus. \$12.50.

John Pecham and the Science of Optics.

Perspectiva communis. Edited and translated by David C. Lindberg. University of Wisconsin Press, Madison, 1970. xviii, 302 pp., illus. \$15. Publications in Medieval Science, No. 14.

Kinetic Architecture. William Zuk and Roger H. Clark. Van Nostrand Reinhold, New York, 1970. viii, 164 pp., illus. \$14.95

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Language and Psychology. Historical Aspects of Psycholinguistics. Arthur L. Blumenthal. Wiley, New York, 1970. xiv, 248 pp., illus. Cloth, \$7.95; paper, \$4.95. Perspectives in Psychology.

Largemouth Bass and Other Fishes in Ridge Lake, Illinois, 1941-1963. George W. Bennett, H. Wickliffe Adkins, and William F. Childers. State of Illinois Department of Registration and Education, Urbana, 1969. Illus. Paper. Natural History Survey Bulletin, vol. 30, article 1, pp. 1-68.

Laser Raman Spectroscopy. A Survey of Interest to Chemists, and Containing a Comprehensive Discussion of Experiments on Crystals. T. R. Gilson and P. J. Hendra. Wiley-Interscience, New York, 1970. xiv, 266 pp., illus. \$15.

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Learning Theory and Mental Development. William K. Estes. Academic Press, New York, 1970. xii, 224 pp. \$9.50.

Mammalian Protein Metabolism. Vol. 4. H. N. Munro, Ed. Academic Press, New York, 1970. xviii, 764 pp., illus. \$24.

Man and His Culture. Psychoanalytic Anthropology after 'Totem and Taboo.' Warner Muensterberger, Ed. Taplinger, New York, 1970. 412 pp. \$10.

Manual de Trabajos Practicos de Embriologia. Ekkehard Kleiss. Universidad de Los Andes, Merida, Venezuela, ed. 2, 1970. xxiv, 396 pp., illus. Paper.

Markovian Decision Processes. Hisashi Mine and Shunji Osaki. Elsevier, New York, 1970. xii, 142 pp., illus. \$12.50. Modern Analytic and Computational Methods in Science and Mathematics.

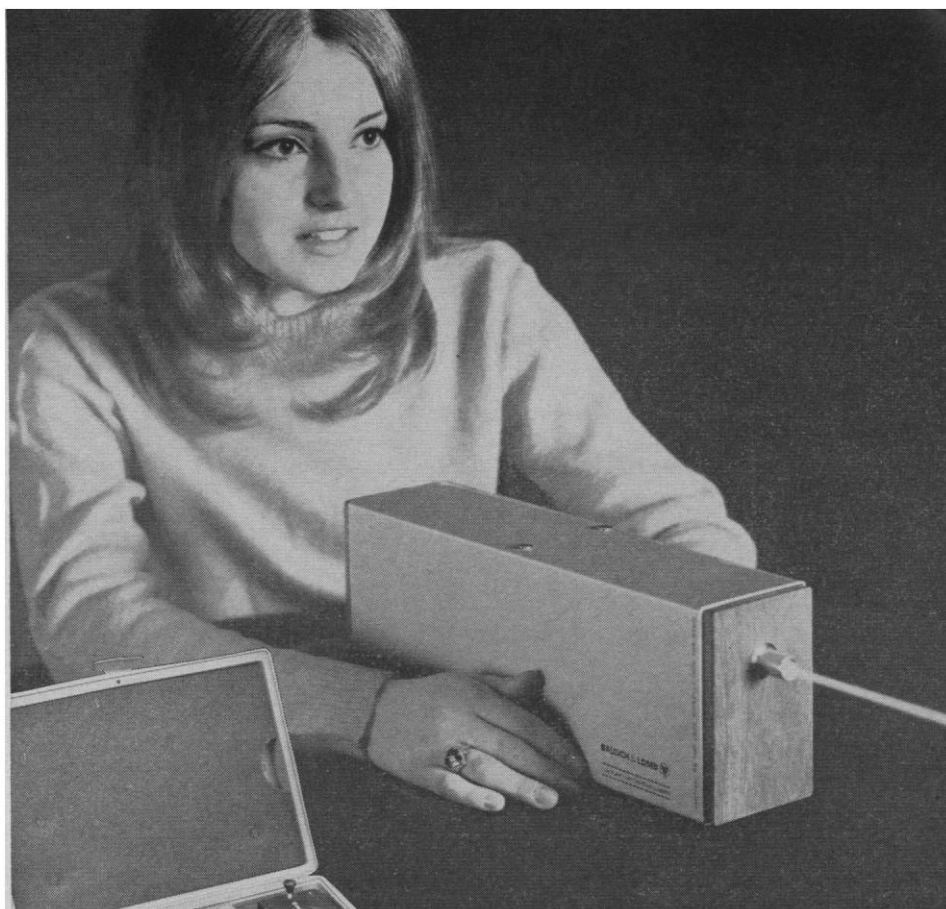
Masking and Demasking of Chemical Reactions. Theoretical Aspects and Practical Applications. D. D. Perrin. Wiley-Interscience, New York, 1970. xii, 212 pp., illus. \$12.95. Chemical Analysis: A Series of Monographs on Analytical Chemistry and its Applications, vol. 33.

Measurements of Spectral Irradiance Underwater. John E. Tyler and Raymond C. Smith. Gordon and Breach, New York, 1970. xii, 104 pp., illus. \$19.50. Ocean Sciences.

Membranes from Cellulose and Cellulose Derivatives. A symposium, Minneapolis, April 1969. Albin F. Turbak, Ed. Interscience (Wiley), New York, 1970. x, 338 pp., illus. Paper, \$17. Applied Polymer Symposia, No. 13.

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Modern Chemistry. Selected Readings. J. G. Stark, Ed. Penguin Books, Baltimore, Md., 1970. 318 pp., illus. Paper, \$2.45. Advanced Science Readings.

The Monsoon Regime of the Currents in the Indian Ocean. Walter Düing. East-West Center Press, Honolulu, 1970. x, 68 pp., illus. \$7.50. International Indian Ocean Expedition Oceanographic Monographs, No. 1.

Moon Rocks. Henry S. F. Cooper, Jr. Dial Press, New York, 1970. x, 198 pp. + plates. \$5.95.

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The Neural Control of Behavior. Richard E. Whalen, Richard F. Thompson, Marcel Verzeano, and Norman M. Weinberger, Eds. Academic Press, New York, 1970. xvi, 302 pp., illus. \$12.

Northwest Coast Indian Art. An Analysis of Form. Bill Holm. University of Washington Press, Seattle, 1970. xviii, 116 pp., illus. Paper, \$4.95. Thomas Burke Memorial Washington State Museum, Monograph No. 1. Reprint of the 1965 edition.

The Northwest Passage. From the Mathew to the Manhattan: 1497 to 1969. Bern Keating. With exclusive color photography by Dan Guravich. Rand McNally, Chicago, 1970. 160 pp., illus. \$9.95.

Nuclear Reactions Induced by Heavy Ions. Proceedings of a conference, Heidelberg, July 1969. R. Bock and W. R. Hering, Eds. North-Holland, Amsterdam; Elsevier, New York, 1970. xx, 822 pp., illus. \$34.75.

The Organic Chemistry of Tin. Wilhelm P. Neumann. Translated from the German edition (Stuttgart, 1967) by Wolf Moser. Interscience (Wiley), New York, 1970. xiv, 282 pp., illus. \$13.50. The Chemistry of Organometallic Compounds.

Palestine—A Search for Truth. Approaches to the Arab-Israeli Conflict. Alan R. Taylor and Richard N. Tetlie, Eds. Public Affairs Press, Washington, D.C., 1970. xii, 284 pp. \$6.

Panel Reports of the Study of Basic Biology in Canada. Biological Council of Canada and the Canadian Federation of Biological Societies. Kenneth C. Fisher, Study Director. Biological Council of Canada, Ottawa, 1970. Unpaged, illus. Paper, \$7.

The Participant Observer. Glenn Jacobs, Ed. Braziller, New York, 1970. xii, 302 pp. Cloth, \$7.95; paper, \$3.95.

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Wiley, New York, 1970. xiv, 512 pp., illus. \$9.95.

Symposium sur la physiologie de la formation de la coquille de l'oeuf. Symposium on the Physiology of the Egg-Shell Formation. Grignon, France, September 1968. Institute Nationale de la Recherche Agronomique, Paris, 1970. 280 pp., illus. Paper, 70 F. Annales de Biologie Animale, Biochimie, Biophysique, vol. 10.

A Taxonomic Revision of the Weevil Genus Dorytomus in North America (Coleoptera: Curculionidae). Charles William O'Brien. University of California Press, Berkeley, 1970. vi, 80 pp., illus. Paper, \$3. University of California Publications in Entomology, vol. 60.

Technology and Humanism. Some Exploratory Essays for Our Time. William G. Carleton. Vanderbilt University Press, Nashville, Tenn., 1970. xiv, 300 pp. \$12.50.

The Testis. Vol. 2, Biochemistry. A. D. Johnson, W. R. Gomes, and N. L. Vandemark, Eds. Academic Press, New York, 1970. xvi, 468 pp., illus. \$35.

Theory of Optimal Control and Mathematical Programming. Michael D. Canon, Clifton D. Cullum, Jr., and Elijah Polak. McGraw-Hill, New York, 1970. xii, 286 pp. \$18.50. Series in Systems Science.

La Thermoélectricité. André Linder. Presses Universitaires de France, Paris, 1970. 136 pp., illus. Paper. "Que Sais-Je?" No. 1381.

Topics in Medicinal Chemistry. Vol. 3. Joseph L. Rabinowitz and Ralph M. Myerson, Eds. Wiley-Interscience, New York, 1970. xiv, 428 pp., illus. \$25.

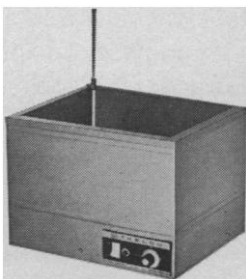


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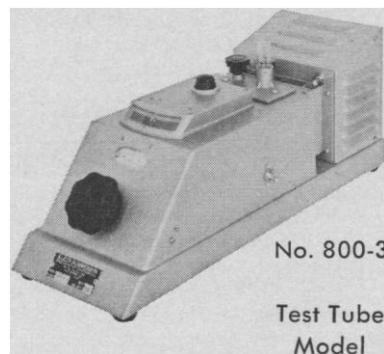
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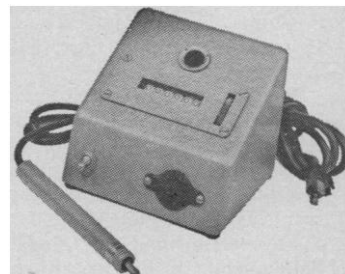
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