

progress in this field is being built.

The three general themes of the conference can be roughly described as excitons in anthracene (energy transfer in organic semiconductors), electrons in tetracyanoquinodimethane (TCNQ) salts (charge transfer), and photoconductivity in polyvinyl *n*-carbazole. The work on anthracene represents a mature field that has benefited from the considerable progress in sample purification and the measurement of a wide variety of properties that has been made over the past decade. The work related to TCNQ salts features a review by H. Kuroda of the rapidly expanding efforts in Japan and a presentation by A. N. Bloch, D. O. Cowan, and T. O. Poehler of their discoveries of properties of dimethyltetrathiofulvalinium-TCNQ—which include the largest electrical conductivity of any organic compound known at the time.

A section of the book is devoted to what the book jacket calls a "crucial topic," superconductivity. As the contributors explain, however, there is no evidence for superconductivity in any organic compound studied. (There is still none at this writing.) W. A. Little sounds a cautious note with respect to possible compounds (as yet unfabricated), but devotes most of his paper to a readable discussion of what superconductivity is and how it, and other electronic properties, are generally affected by highly anisotropic materials such as the TCNQ complexes. Perhaps the most optimistic comment that can be made at this time about superconductivity in organic compounds is that the myriad combinations of materials possible in this class make it appear that almost any property can be achieved. However, there may be intrinsic physical and chemical restrictions, such as collective electronic instabilities.

With regard to practical applications, it can be concluded on the evidence of these papers that the materials will not be ready in time for installation of organic semiconductor devices or organic cables in next year's Cadillacs. On the other hand, as the study of disorder by A. N. Bloch shows, there has certainly been some good science done, and, as J. Mort of Xerox suggests in reference to the class of polymer compounds now used in the IBM copier, more applications will certainly be found in the not too distant future.

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## Books Received

**Advances in Comparative Physiology and Biochemistry.** Vol. 5. O. Lowenstein, Ed. Academic Press, New York, 1974. xii, 198 pp., illus. \$21.50.

**Advances in Enzymology.** And Related Areas of Molecular Biology. Vol. 41. Alton Meister, Ed. Interscience (Wiley), New York, 1974. viii, 364 pp., illus. \$20.95.

**Advances in Quantum Chemistry.** Vol. 8. Per-Olov Löwdin, Ed. Academic Press, New York, 1974. xviii, 292 pp., illus. \$32.50.

**Advances in Solid State Physics.** Papers from a meeting, Freudenstadt, Germany, April 1974. H. J. Queisser, Ed. Pergamon, Elmsford, N.Y., and Vieweg, Braunschweig, Germany, 1974. viii, 310 pp., illus. \$33.75. Festkörperprobleme, 14.

**Agricultural Meteorology of Japan.** Published for the 30th Anniversary of The Society of Agricultural Meteorology of Japan. Yoshiaki Mihara, Ed. University Press of Hawaii, Honolulu, 1974. xii, 216 pp., illus. \$20. An East-West Center Book.

**Air Pollution Abatement and Regional Economic Development.** William H. Miernyk and John T. Sears. Lexington Books (Heath), Lexington, Mass., 1974. xviii, 196 pp., illus. \$13.50.

**Biological Bases of Sexual Behavior.** Gordon Bermant and Julian M. Davidson. Harper and Row, New York, 1974. xiv, 306 pp., illus. Paper, \$7.95. Animal Behavior Series.

**Cell Wall Deficient Forms.** Lida H. Mattman. CRC Press (Chemical Rubber Co.), Cleveland, 1974. xii, 412 pp., illus. \$44.95.

**The Chemistry of PCB's.** O. Hutzinger, S. Safe, and V. Zitko. CRC Press (Chemical Rubber Co.), Cleveland, 1974. x, 270 pp., illus. \$35.

**Cichlid Fishes of Lake Victoria, East Africa.** The Biology and Evolution of a Species Flock. P. H. Greenwood. Trustees of the British Museum (Natural History), London, 1974. vi, 134 pp., illus. £6. Reprinted from the *Bulletin* of the British Museum (Natural History), Zoology Series, Supplement 6.

**The Collector's Encyclopedia of Shells.** S. Peter Dance, Ed., with photographs by Ian Cameron. McGraw-Hill, New York, 1974. 288 pp. \$19.95.

**Colloque International sur la Synthèse Normale et Pathologique des Protéines chez les Animaux Supérieurs.** International Symposium on Normal and Pathological Protein Synthesis in Higher Organisms. Proceedings of a symposium, Paris, May 1973. Institut National de la Santé et de la Recherche Médicale, Paris, 1973. xii, 508 pp., illus. Paper, 50 F. Colloques et Séminaires.

**Dual Resonance Models.** Paul H. Frampton. Benjamin, Reading, Mass., 1974. xxiv, 452 pp., illus. Paper, \$14. *Frontiers in Physics*, No. 45.

**An Early Middle Eocene Flora from the Yellowstone-Absaroka Volcanic Province, Northwestern Wind River Basin, Wyoming.** H. D. MacGinitie with chapters by Estella B. Leopold and W. L. Rohrer. University of California Press, Berkeley,

1974. vi, 104 pp. + plates. Paper, \$5.75. University of California Publications in Geological Sciences, vol. 108.

**Energy Policy Evaluation.** Modeling and Simulation Approaches. Papers from a workshop, San Diego, Calif., Nov. 1973. Dilip R. Limaye, Ed. Lexington Books (Heath), Lexington, Mass., 1974. xiv, 218 pp., illus. \$14.

**Environmental Education.** Strategies Toward a More Livable Future. James A. Swan and William B. Stapp, Eds. Sage, Beverly Hills, Calif., and Halsted (Wiley), New York, 1974 (distributor, Halsted). 350 pp., illus. \$15.

**Equipment for Vector Control.** World Health Organization, Geneva, 1974 (U.S. distributor, Q Corporation, 49 Sheridan Ave., Albany, N.Y.). 180 pp., illus. \$8.50.

**Finite-Dimensional Vector Spaces.** Paul R. Halmos. Springer-Verlag, New York, 1974. viii, 200 pp. \$7.95. Undergraduate Texts in Mathematics. Reprint of the second edition.

**Flight through the Ages.** A Complete, Illustrated Chronology from the Dreams of Early History to the Age of Space Exploration. C. H. Gibbs-Smith. Crowell, New York, 1974. 240 pp. \$17.95.

**The Foundations of Mechanics and Thermodynamics.** Selected Papers. W. Noll. Springer-Verlag, New York, 1974. x, 326 pp. \$20.10.

**Green Revolution.** M. S. Randhawa and twelve others. Halsted (Wiley), New York, 1974. xvi, 208 pp. + plates. \$9.50.

**Gynecology.** A Textbook for Students. Fritz Beller, Karl Knörr, Christian Lauritzen, and Ralph M. Wynn. Springer-Verlag, New York, 1974. x, 386 pp., illus. Paper, \$12. Springer Study Edition.

**Handbook of Microbiology.** Condensed Edition. Allen I. Laskin and Hubert A. Lechevalier, Eds. CRC Press (Chemical Rubber Co.), Cleveland, 1974. xii, 930 pp., illus. Paper, \$14.95.

**Handbook of Microbiology.** Vol. 4, Microbial Metabolism, Genetics and Immunology. Allen I. Laskin and Hubert A. Lechevalier, Eds. CRC Press (Chemical Rubber Co.), Cleveland, 1974. xvi, 904 pp., illus. \$39.95.

**Heat Transfer in Fires.** Thermophysics, Social Aspects, Economic Impact. Papers from a meeting, Trogir, Yugoslavia. Perry L. Blackshear, Ed. Scripta, Washington, D.C., and Halsted (Wiley), New York, 1974 (distributor, Halsted). xii, 516 pp., illus. \$28.50. *Advances in Thermal Engineering*, 1.

**Heat Transfer in Flames.** Papers from a meeting, 1973. N. H. Afgan and J. M. Beer, Eds. Scripta, Washington, D.C., and Halsted (Wiley), New York, 1974 (distributor, Halsted). viii, 502 pp., illus. \$28.50. *Advances in Thermal Engineering*, 2.

**Heterogeneous Catalysis.** Principles and Applications. G. C. Bond. Clarendon (Oxford University Press), New York, 1974. x, 120 pp., illus. \$10.50. *Oxford Chemistry Series*.

**Highlights of Organic Chemistry.** An Advanced Textbook. William J. le Noble. Dekker, New York, 1974. xx, 976 pp., illus. \$19.50. *Studies in Organic Chemistry*, vol. 3.

(Continued on page 666)

## BOOKS RECEIVED

(Continued from page 641)

**Hypnosis, Imagination, and Human Potentialities.** Theodore X. Barber, Nicholas P. Spanos, and John F. Chaves. Pergamon, New York, 1974. x, 192 pp. Cloth, \$9.50; paper, \$5.

**Incineration.** A State-of-the-Art Study. National Center for Resource Recovery, Inc. Lexington Books (Heath), Lexington, Mass., 1974. xvi, 152 pp., illus. \$13.

**Introduction to Particle Production in Hadron Physics.** S. Humble. Academic Press, New York, 1974. viii, 254 pp., illus. \$17.50.

**Introduction to Theoretical Geophysics.**

Charles B. Officer. Springer-Verlag, New York, 1974. x, 386 pp., illus. \$19.80.

**Islands of the South.** Austin Coates. Pica, New York, 1974 (distributor, Universe Books, 381 Park Ave. South, New York). viii, 200 pp. + plates. \$9.

**Kidney and Urinary Tract Physiology.** K. Thirau, Ed. Butterworths, London, and University Park Press, Baltimore, 1974. xii, 428 pp., illus. \$19.50. MTP International Review of Science, Physiology, Series One, vol. 6.

**Laue Atlas.** Plotted Laue Back-Reflection Patterns of the Elements, the Compounds RX and RX<sub>2</sub>. Eduard Preuss, Bernhard Krahl-Urbán, and Rainer Butz. Halsted (Wiley), New York, 1974. 432 pp. \$49.50.

**Liberty and Equality in the Educational Process.** A Comparative Sociology of Education. Remi Clignet. Wiley-Interscience, New York, 1974. xiv, 418 pp., illus. \$14.95.

**Measure Theory.** Paul R. Halmos. Springer-Verlag, New York, 1974. xii, 304 pp. \$12. Graduate Texts in Mathematics, vol. 18. Reprint of the 1950 edition.

**Metal Ions in Biological Systems.** Vol. 4, Metal Ions as Probes. Helmut Sigel, Ed. Dekker, New York, 1974. xiv, 262 pp., illus. \$24.75.

**Metallic Matrix Composites.** Kenneth G. Kreider, Ed. Academic Press, New York, 1974. xx, 486 pp., illus. \$32.50. Composite Materials, vol. 4.

**Nicolaus Copernicus.** Akademische Festschrift aus Anlass der 500. Wiederkehr des Guburtstages von Nicolaus Copernicus. Copernicus-Komitee, Akademie der Wissenschaften der DDR. Akademie-Verlag, Berlin, 1973. 104 pp. + plates. 12 M.

**The Outlook for American Education.** George D. Stoddard. Southern Illinois University Press, Carbondale, and Feffer and Simons, London, 1974. xii, 276 pp. \$8.95.

**Paleolimnology of Lake Biwa and the Japanese Pleistocene.** Shoji Horie, Ed. Otsu Hydrobiological Station, Kyoto University, Otsu, Japan, 1974. iv, 288 pp., illus. + plates. Paper.

**The Patient, Death, and the Family.** Papers from a conference, Rochester, N.Y., April 1971. Stanley B. Troup and William A. Greene, Eds. Scribner, New York, 1974. xii, 172 pp., illus. \$7.95.

**Phenology and Seasonality Modeling.** Papers from a symposium, Minneapolis, Aug. 1972. Helmut Lieth, Ed. Springer-Verlag, New York, 1974. xvi, 444 pp., illus. \$47.80. Ecological Studies, vol. 8.

**Physical Activity and Health.** An Epidemiologic Study of an Entire Community. Henry J. Montoye. Prentice-Hall, Englewood Cliffs, N.J., 1975. xviii, 206 pp., illus. \$10.50. Prentice-Hall International Research Monograph Series in Physical Education.

**Primary Care.** Where Medicine Fails. Spyros Andreopoulos, Ed. Wiley, New York, 1974. x, 212 pp., illus. \$9.95. The Sun Valley Forum on National Health, Inc.

**Primary Production and Production Processes, Tundra Biome.** Proceedings of a conference, Dublin, April 1973. L. C. Bliss and F. E. Wielgolaski, Eds. Tundra Biome Steering Committee, 1973. (Available from Department of Botany, University of Alberta, Edmonton, Canada.) viii, 256 pp., illus. \$4 (Canadian).

**Primate Aggression, Territoriality, and Xenophobia.** A Comparative Perspective. Ralph L. Holloway, Ed. Academic Press, New York, 1974. xiv, 514 pp., illus. \$29.50.

**Principles and Techniques of Electron Microscopy.** Vol. 4. Biological Applications. M. A. Hayat, Ed. Van Nostrand Reinhold, New York, 1974. xvi, 216 pp., illus. \$19.95.

**Proceedings of a Seminar on Analytical Methods in Planning.** Davis, Calif., Mar. 1974. Hydrologic Engineering Center, U.S. Army Corps of Engineers, Davis, Calif., 1974. vi, 192 pp., illus. Paper.



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**Protein Nutrition.** Papers from a conference, Boston, Nov. 1971. Henry Brown, Ed. Thomas, Springfield, Ill., 1974. xiv, 240 pp., illus. \$16.75.

**The Psychology of Depression.** Contemporary Theory and Research. Proceedings of a workshop, Airlie, Va., Oct. 1971. Raymond J. Friedman and Martin M. Katz, Eds. Winston, Washington, D.C., and Halsted (Wiley), New York, 1974 (distributor, Halsted). xviii, 318 pp., illus. \$15. The Series in Clinical Psychology.

**Selected Bibliography of Biographical Data for the History of Biochemistry since 1800.** Joseph S. Fruton. American Philosophical Society Library, Philadelphia, 1974. xii, 140 pp. Paper, \$2.50. Library Publication No. 6.

**Seventy Generations of Selection for Oil and Protein in Maize.** J. W. Dudley, Ed. Crop Science Society of America, Madison, Wis., 1974. xii, 212 pp., illus. \$10; to members, \$7.50.

**Shrink! The Diary of a Psychiatrist.** Theodore Isaac Rubin. Popular Library, New York, 1974. 238 pp. Paper, \$1.50.

**Silicon Chemistry.** I. H. Bürger, R. Eujen, G. Fritz, and F. Höfler. Springer-Verlag, New York, 1974. iv, 166 pp., illus. + index. \$19.50. Topics in Current Chemistry, vol. 50.

**Stable Homotopy and Generalised Homology.** J. F. Adams. University of Chicago Press, Chicago, 1974. x, 374 pp., illus. Cloth, \$11.50; paper, \$4.95. Chicago Lectures in Mathematics.

**Statistical Techniques in Simulation.** Part 1. Jack P. C. Kleijnen. Dekker, New York, 1974. xvi, 286 pp., illus. \$17.75. Statistics, vol. 9.

**A Student's Atlas of Flowering Plants.** Some Dicotyledons of Eastern North America. Carroll E. Wood, Jr., assisted by Elizabeth A. Shaw, with the technical help of Karen S. Velmure and Kenneth R. Robertson. Harper and Row, New York, 1974. xiv, 123 pp., illus. Paper, \$2.95.

**Studies in Optimization.** D. M. Burley. Halsted (Wiley), New York, 1974. xii, 228 pp., illus. \$12.95.

**The Sweet Potato and Oceania.** An Essay in Ethnobotany. D. E. Yen. Bishop Museum Press, Honolulu, 1974. xvi, 390 pp., illus. \$18. Bernice P. Bishop Museum Bulletin 236.

**Symposia Mathematica.** Istituto Nazionale di Alta Matematica. Vol. 11, Nov. 1971-May 1972. 458 pp., illus. \$28.90. Vol. 12, Feb. 1972. 364 pp. \$23.25. Academic Press, New York, 1973.

**Syntactic Methods in Pattern Recognition.** K. S. Fu. Academic Press, New York, 1974. xii, 296 pp., illus. \$23.50. Mathematics in Science and Engineering, vol. 112.

**Synthetic Production and Utilization of Amino Acids.** Takeo Kaneko, Yoshiharu Izumi, Ichiro Chibata, and Tamio Itoh, Eds. Translated from the Japanese edition (Tokyo, 1973). Kodansha, Tokyo, and Halsted (Wiley), New York, 1974. xii, 312 pp., illus. \$22.50.

**A Tourist Guide to Mount McKinley.** Bradford Washburn. Alaska Northwest Publishing Co., Anchorage, ed. 2, 1974. 80 pp., illus. Paper, \$3.95.

**Transfer and Storage of Energy by Molecules.** Vol. 4, The Solid State. George M. Burnett, Alastair M. North, and John N. Sherwood, Eds. Wiley-Interscience, New York, 1974. xxiv, 612 pp., illus. \$47.50.

**The Treatment of Breast Cancer.** Hedley Atkins, Ed. University Park Press, Baltimore, 1974. viii, 222 pp., illus. \$19.50.

**Vacuum Manual.** L. Holland, W. Steckelmacher, and J. Yarwood, Eds. Spon, London, 1974 (U.S. distributor, Halsted [Wiley], New York). x, 428 pp., illus. \$33.50.


**Vascular Disorders of the Extremities.** David I. Abramson. Harper and Row Medical Department, Hagerstown, Md., 1974. xxii, 898 pp., illus. \$42.50. Second edition of *Diagnosis and Treatment of Peripheral Vascular Disorders*.

**Waterfowl and Wetlands.** Toward Bioeconomic Analysis. Judd Hammack and Gardner Mallard Brown, Jr. Resources for the Future, Washington, D.C., 1974 (distributor, Johns Hopkins University Press, Baltimore). xii, 96 pp., illus. \$7.

**The Way In and the Way Out.** François Magendie, Charles Bell and the Roots of the Spinal Nerves. With a Facsimile of Charles Bell's Annotated Copy of His Idea of a New Anatomy of the Brain. Paul F. Crane. Futura, Mount Kisco, N.Y., 1974. Various pages, \$25. The History of Medicine Series, No. 41.

**Yearbook of Forest Products, 1971.** Food and Agriculture Organization of the United Nations, Rome, 1973 (U.S. distributor, Unipub, New York). xxxii, 226 pp. Paper, \$8.

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