

mains do exist is probably surprising to many even today, though the stability of these domains was reported in 1960 by Kooy and Enz of Philips Research Laboratories in Eindhoven. It was not until it was realized that magnetic bubbles could operate competitively at speeds between those of magnetic tape and disk systems on the one hand and core or semiconductor memories on the other that a memory technology based on them emerged. Many interesting physics problems surfaced as this technology advanced, "hard bubbles" being one example.

Magnetic bubble domains can be readily observed in orthoferrite and garnet platelets and in epitaxial garnet films. In fact, observation of bubbles in controlled motion performing logic and storage functions is one of the fascinations of this technology. As a result of this ease of observation, the understanding of bubble circuits has progressed rapidly. The physics of bubble manipulation is adequately covered by O'Dell.

Tens of thousands of magnetic bubbles a fraction of a micrometer to several micrometers in diameter are entered as binary storage patterns in chips several millimeters on a side. These chips, singly or in combinations, are packaged to provide memory in many systems. *Magnetic Bubbles* will provide the casual reader with an overview of the subject and permit him better to compare magnetic bubble storage with other contenders. It is written in sufficient depth to satisfy the more serious student of bubble behavior.

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Solid State Spectra

Optical Properties of Ions in Solids. Papers from a NATO Advanced Study Institute, Erice, Italy, June 1974. BALDASSARE DI BARTOLO and DENNIS PACHECO, Eds. Plenum, New York, 1975. xvi, 494 pp., illus. \$39. NATO Advanced Study Institutes Series B, vol. 8.

The electronic energy states of ionic defects in solids have long been of immediate practical interest in the technology of artificial light sources: phosphors, fluorescent materials, and most recently lasers. The development of narrow, intense light sources has in turn accelerated the study of the defects themselves by, for example, enhancing their sensitivity as probes of the vibrational states of the host material. With their relatively simple structures, ionic defects have served as a rich microscopic

"laboratory" for the imaginative application of quantum mechanics to their vibronic states and to mechanisms such as cooperative absorption and transfer. The present volume gives a clear picture of the current status of this aspect of the field.

Well-done physics summer school proceedings serve to fill the gap between what is learned in general quantum mechanics courses and the detailed knowledge needed today for research in the subspecialties of physics. This gap has become virtually unbridgeable by specialty graduate courses such as those in solid state or nuclear physics, unless they are much too narrowly focused. The Erice volume is suitable as a basis either for a subspecialty course or for self-study by a graduate or advanced undergraduate student.

The optical properties of ions are discussed in many approximations, as appropriate, from the simplest configuration-coordinate picture to a full treatment of phonon sidebands. Chapters on magnetic insulators, the Jahn-Teller effect, and ion-pair spectra are included. The important related subjects of stepwise up-conversion and cooperative absorption phenomena are covered, and this reviewer is especially enthusiastic about the clarity of the treatments of energy transfer by Watts and Orbach. All the lectures are concerned primarily with theory, but illustrative spectra are included and the balance is more than adequate. The value of the book is enhanced by the inclusion of just the right proportion of relevant more general topics such as semiclassical radiation theory, phonon theory, and group theory.

The authors of the lectures published in full are B. Di Bartolo, D. Curie, T. L. Estle, D. S. McClure, L. Mehrkam, R. Orbach, R. K. Watts, and F. Williams. Many of them have contributed more than one lecture. The authors and editors have produced a uniformly well-done volume that should have a place in many programs of study in the field.

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Books Received

Advanced Applications for Pocket Calculators. Jack Gilbert. Tab Books, Blue Ridge Summit, Pa., 1975. 304 pp., illus. Cloth, \$8.95; paper, \$5.95.

Advances in Fruit Breeding. Jules Janick and James N. Moore, Eds. Purdue University Press, West Lafayette, 1975. xvi, 624 pp., illus. \$25.

Advances in Organometallic Chemistry. Vol. 13. F. G. A. Stone and Robert West, Eds. Academic Press, New York, 1975. x, 562 pp., illus. \$44.50.

Advances in Polymer Science. Fortschritte der Hochpolymeren-Forschung. Vol. 17. H.-J. Cantow and twelve others, Eds. Springer-Verlag, New York, 1975. iv, 110 pp., illus. \$24.10.

The Aldine Crime and Justice Annual, 1974. Seymour L. Halleck and five others, Eds. Aldine, Chicago, 1975. xxii, 542 pp. \$18.50; to institutions, \$27.50.

Aldosterone and Aldosteronism. E. J. Ross. Lloyd-Luke, London, 1975. x, 502 pp., illus. £8.

Analysis and Presentation of Experimental Results. R. H. Leaver and T. R. Thomas. Halsted (Wiley), New York, 1975. xiv, 128 pp., illus. Paper, \$7.75.

Analysis of Tall Buildings by the Force-Displacement Method. M. Smolira. Halsted (Wiley), New York, 1975. xii, 300 pp., illus. \$39.50.

Applications of Behavior Modification. Proceedings of a conference, Minneapolis, Oct. 1972. Travis Thompson and William S. Dockens III, Eds. Academic Press, New York, 1975. xviii, 540 pp., illus. \$28.50.

The Archaeology of Missouri. Vol. 1. Carl H. Chapman. Illustrations by Eleanor F. Chapman. University of Missouri Press, Columbia, 1975. xiv, 288 pp. \$20. University of Missouri Studies, 62.

An Autocorrelation Theory of Form Detection. William R. Uttal. Erlbaum, Hillsdale, N.J., 1975 (distributor, Halsted [Wiley], New York). x, 158 pp., illus. \$12.95.

Basic and Therapeutic Aspects of Perinatal Pharmacology. Papers from a symposium, Milan, Italy, June 1974. P. L. Morselli, S. Garattini, and F. Sereni, Eds. Raven Press, New York, 1975. xvi, 440 pp., illus. \$18.95. Monographs of the Mario Negri Institute for Pharmacological Research, Milan.

Beta-Adrenergic Blocking Agents in the Management of Hypertension and Angina Pectoris. Proceedings of a symposium, Florence, Italy, Apr. 1974. Bruno Magnani, Ed. Raven Press, New York, 1975. xii, 190 pp., illus. \$10.

Biology of Cancer. E. J. Ambrose and F. J. C. Roe, Eds. Horwood, Chichester, England, and Halsted (Wiley), New York, ed. 2, 1975. viii, 316 pp., illus. \$45.

Biomechanics. R. McNeill Alexander. Chapman and Hall, London, and Halsted (Wiley), New York, 1975. 62 pp., illus. Paper, \$3.45.

Breeding Endangered Species in Captivity. Papers from a conference, Trinity, Jersey, Channel Islands, May 1972. R. D. Martin, Ed. Academic Press, New York, 1975. xxvi, 420 pp., illus. \$33.75.

Cancer Therapy. Prognostic Factors and Criteria of Response. Maurice J. Staquet, Ed. Raven Press, New York, 1975. xii, 394 pp., illus. \$19.75. A Monograph of the European Organization for Research on Treatment of Cancer.

Cell Biology. E. D. P. DeRobertis, Francisco A. Saez, and E. M. F. DeRobertis, Jr. Saunders, Philadelphia, ed. 6, 1975. xvi, 616 pp., illus. \$14.95.

Cerebral Circulation and Metabolism. Papers from a symposium, Philadelphia, June 1973. Thomas W. Langfitt, Lawrence C. McHenry, Jr., Martin Reivich, and Harry Wollman, Eds. Springer-Verlag, New York, 1975. xxviii, 566 pp., illus. \$76.80.

Cerebral Vascular Diseases. Transactions of a conference, Princeton, N.J., Jan. 1974. Jack P. Whisnant and Burton A. Sandok, Eds. Grune and Stratton, New York, 1975. xvi, 334 pp., illus. \$13.50. Princeton Conferences on Cerebrovascular Diseases, 9.

The Chief Abstractions of Biology. W. M. El-sasser. North-Holland, Amsterdam, and Else-

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RESEARCH NEWS

(Continued from page 771)

guinea pig lungs is used to model asthma attacks. In order to study the PG endoperoxides and their derivatives, investigators are studying and are synthesizing stable analogs of the PG endoperoxides.

William Lands of the University of Michigan and his associates are studying the kinetics and biochemistry of the enzyme that converts fatty acids to PG endoperoxides. This conversion occurs when the enzyme catalyzes the addition of two oxygen atoms to the fatty acid precursor of endoperoxides. Lands and his colleagues find that the enzyme has three active sites: a site where oxygen binds, a site where the fatty acid binds, and a site where a substance that activates the enzyme binds. According to Lands, the activator is probably an endoperoxide. This indicates that the enzyme is activated by its own reaction product, leading to an explosive rate of synthesis of PG endoperoxides once the reaction begins. Aspirin and indomethacin, Lands finds, inhibit this enzyme by attaching to the fatty acid binding site. Tylenol (*p*-hydroxyacetanilide), on the other hand, binds to the activator site to inactivate the enzyme.

Stable analogs of PG endoperoxides should facilitate studies of their modes of action and may also be of clinical importance. E. J. Corey of Harvard University together with Samuelsson and their associates recently synthesized such a stable endoperoxide analog. They report that this compound is 7.9 times more effective than naturally occurring PG endoperoxides in causing platelets to aggregate, 6 times more effective in causing platelets to release serotonin, and 7 times more effective in causing rabbit aortas to contract. (This means that it is 1450 times more effective than PGE₂ in causing contractions of rabbit aortas.)

Two other stable analogs of PG endoperoxides were synthesized by G. L. Bundy of the Upjohn Company. These analogs have, so far, been shown to be potent constrictors of the bronchii like the naturally occurring PG endoperoxides. Neither Bundy nor Corey and his colleagues have yet determined whether the PG endoperoxide analogs have the same range of biological activity as the naturally occurring endoperoxides or whether they have the same mode of action as the naturally occurring endoperoxides. For example, it is unknown whether they inhibit adenylate cyclase in fat cells. However, as these analogs become more widely available, the prospects for understanding how PG endoperoxides, thromboxanes, and prostaglandins act look promising.—GINA BARI KOLATA

BOOKS RECEIVED

(Continued from page 780)

vier, New York, 1975. xiv, 262 pp. Paper, \$18.75.

Cholinergic Mechanisms. Papers from a symposium, Boldern, Switzerland, Mar. 1974. P. G. Waser, Ed. Raven Press, New York, 1975. xviii, 556 pp., illus. \$29.50.

Clinical Physiology. E. J. Moran Campbell, C. J. Dickinson, and J. D. H. Slater, Eds. Blackwell, Oxford, England, ed. 4, 1974 (U.S. distributor, Lippincott, Philadelphia). xiv, 850 pp., illus. \$24.75.

Comfort Heating. Billy C. Langley. Reston Publishing Co. (Prentice-Hall), Reston, Va., 1975. xii, 290 pp., illus. \$14.95.

Computer-Aided Information Retrieval. Andrew E. Wessel. Melville (Wiley), Los Angeles, 1975. xviii, 176 pp. \$14.95. Information Sciences Series. A Wiley-Becker and Hayes Series Book.

Connective Tissue. Macromolecular Structure and Evolution. Martin B. Mathews. Springer-Verlag, New York, 1975. xii, 320 pp., illus. \$33.60. Molecular Biology, Biochemistry and Biophysics, vol. 19.

Contemporary Problems in Technical Library and Information Center Management. A State-of-the-Art. Alan Rees, Ed. American Society for Information Science, Washington, D.C., 1974. vi, 212 pp. \$18.50.

Continuing Library and Information Science Education. Final Report to the National Commission on Libraries and Information Science. Elizabeth W. Stone, Ruth J. Patrick, and Barbara Conroy. American Society for Information Science, Washington, D.C., 1974. xxx, 190 pp. + microfiche. Paper, \$10.

Continuing Library Education as Viewed in Relation to Other Continuing Professional Education Movements. Elizabeth W. Stone. American Society for Information Science, Washington, D.C., 1974. vi, 694 pp. Paper, \$25.

Cross-Cultural Universals of Affective Meaning. Charles E. Osgood, William H. May, and Murray S. Miron. University of Illinois Press, Urbana, 1975. xx, 486 pp. \$20.

Data Communications via Fading Channels. Kenneth Brayer, Ed. IEEE Press, New York, 1975 (distributor, Wiley, New York). x, 506 pp., illus. \$17.95. IEEE Press Selected Reprint Series.

Dynamic Aspects of Plant Ultrastructure. A. W. Robards, Ed. McGraw-Hill, New York, 1974. xii, 546 pp., illus. \$25. European Plant Biology Series.

Eat Your Heart Out. Food Profiteering in America. Jim Hightower. Crown, New York, 1975. x, 294 pp., illus. \$8.95.

Ecology, Utilization, and Management of Marine Fisheries. George A. Rounsefell. Mosby, St. Louis, 1975. xii, 516 pp., illus. \$24.95.

Effective Management of Research and Development. P. A. F. White. Halsted (Wiley), New York, 1975. x, 296 pp., illus. \$24.95.

Electroanalytical Chemistry. H. W. Nürnberg, Ed. Interscience (Wiley), New York, 1975. xii, 610 pp., illus. \$49.50. Advances in Analytical Chemistry and Instrumentation, vol. 10.

Endemic Goiter and Cretinism. Continuing Threats to World Health. Papers from a meeting, São Paulo, Brazil, Oct. 1973. John T. Dunn and Geraldo A. Medeiros-Neto, Eds. Pan American Health Organization, Washington, D.C., 1974. xii, 304 pp., illus. Paper, \$5. Scientific Publication No. 292.

Energy and the Environment. John M. Fowler. McGraw-Hill, New York, 1975. xvi, 496 pp., illus. Paper, \$7.95.

Energy for a Technological Society. Prin-

ciples/Problems/Alternatives. Joseph Priest. Addison-Wesley, Reading, Mass., 1975. xxii, 358 pp., illus. Paper, \$9.95. Study guide, viii, 142 pp., illus. Paper, \$2.95.

Energy Transformation in Biological Systems. Proceedings of a symposium, London, July 1974. Associated Scientific Publishers (Elsevier, Excerpta Medica, North-Holland), New York, 1975. x, 416 pp., illus. \$29.25. Ciba Foundation Symposium 31 (new series).

Environmental and Biological Control of Photosynthesis. Proceedings of a conference, Diepenbeek, Belgium, Aug. 1974. R. Marcelle, Ed. Junk, The Hague, 1975. viii, 408 pp., illus. Paper, Dfl. 110.

Environmental Physiology. D. Bellamy, G. J. Goldsworthy, K. C. Highnam, W. Mordue, and J. G. Phillips. J. G. Phillips, Ed. Halsted (Wiley), New York, 1975. x, 198 pp., illus. Paper, \$7.95.

The Evolution of Behavior. Jerram L. Brown. Norton, New York, 1975. xxii, 762 pp., illus. \$15.95.

Faculty Bargaining. Change and Conflict. Joseph W. Garbarino in association with Bill Aussieker. McGraw-Hill, New York, 1975. x, 278 pp. \$10. A Report Prepared for the Carnegie Commission on Higher Education and the Ford Foundation.

Familial Polyposis Coli. Family Studies, Histopathology, Differential Diagnosis, and Results of Treatment. H. J. R. Bussey. Johns Hopkins University Press, Baltimore, 1975. xvi, 104 pp., illus. \$12.

Foundation Design and Construction. M. J. Tomlinson. Halsted (Wiley), ed. 3, 1975. xvi, 786 pp. + plates. \$40.

A Foundation for Quantum Chemistry. A. R. Denaro. Halsted (Wiley), New York, 1975. viii, 160 pp., illus. \$10.95.

Functional Linkage in Biomolecular Systems. Francis O. Schmidt, Diana M. Schneider, and Donald M. Crothers, Eds. Raven Press, New York, 1975. xvi, 350 pp., illus. \$19.75.

Fundamentals of Operations Research for Management. An Introduction to Quantitative Methods. Shiv K. Gupta and John M. Cozzolino. Holden-Day, San Francisco, 1975. x, 406 pp., illus. \$15.95.

Gene Expression and Carcinogenesis in Cultured Liver. Proceedings of a symposium, Los Angeles, May 1974. L. E. Gerschenson and E. Brad Thompson, Eds. Academic Press, New York, 1975. xvi, 496 pp., illus. \$22.50.

Gram-Negative Bacterial Infections and Mode of Endotoxin Actions. Pathophysiological, Immunological, and Clinical Aspects. Proceedings of a symposium, Vienna, Sept. 1973. Bernhard Urbaschek, Renate Urbaschek, and Erwin Neter, Eds. Springer-Verlag, New York, 1975. xvi, 524 pp., illus. \$31.

Grzimek's Animal Life Encyclopedia. Bernhard Grzimek, Ed. Translated from the German edition (Zurich). Van Nostrand Reinhold, New York, 1975. Vol. 6, Reptiles. 590 pp., illus. Vol. 12, Mammals III. 658 pp., illus. Each volume, \$29.95; the 13-volume set, \$325.

Human Physiology Examination Review. Robert S. Shepard. Arco, New York, 1975. xiv, 336 pp., illus. Paper, \$10. Arco Medical Review Series.

Immunology, Immunopathology and Immunity. Stewart Sell. Harper and Row Medical Department, Hagerstown, Md., 1975. xiv, 384 pp., illus. Paper, \$14.95.

Industrial Environmental Health. The Worker and the Community. Lester V. Cralley, Patrick R. Atkins, Lewis J. Cralley, and George D. Clayton, Eds. Academic Press, New York, ed. 2, 1975. xvi, 358 pp. \$28.50. Environmental Sciences.

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Infectious Diseases of the Central Nervous System. Papers from a symposium, Phoenix, Ariz., Feb. 1974. Richard A. Thompson and John R. Green, Eds. Raven Press, New York, 1974. x, 286 pp., illus. \$24.50. *Advances in Neurology*, vol. 6.

Information Utilities. Proceedings of a meeting, Atlanta, Oct. 1974. Pranas Zunde, Ed. American Society for Information Science, Washington, D.C., 1974. x, 278 pp. \$17.50. *Proceedings of the ASIS Annual Meeting*, vol. 11.

Insects, Science, and Society. Proceedings of a symposium, Ithaca, N.Y., Oct. 1974. David Pimentel, Ed. Academic Press, New York, 1975. xxviii, 284 pp., illus. \$15.

International Conference on X-Rays in Space. (Cosmic, Solar and Auroral X-Rays.) Calgary, Alberta, Canada, Aug. 1974. Published by Dr. D. Vankatesan, University of Calgary Department of Physics, Calgary, Canada, 1975. Two volumes, illus. xii + pp. 1-638, and viii + pp. 639-1236 + appendices. Paper, \$40.

International Marine Environment Policy. The Economic Dimension. Charles S. Pearson. Johns Hopkins University Press, Baltimore, 1975. xvi, 128 pp. Cloth, \$9; paper, \$2.65. Washington Center of Foreign Policy Research Studies in International Affairs No. 25.

Intestinal Absorption and Malabsorption. Papers from a symposium, Lexington, Ky., May 1974. T. Z. Csáky, Ed. Raven Press, New York, 1975. x, 308 pp., illus. \$18.95.

An Introduction to Differentiable Manifolds and Riemannian Geometry. William M. Boothby. Academic Press, New York, 1975. xvi, 424 pp., illus. \$27.50. *Pure and Applied Mathematics*.

Introduction to Geology. Vol. 2, Earth History. Part 1, Early Stages of Earth History. H. H. Read and Janet Watson. Halsted (Wiley), New York, 1975. xii, 222 pp., illus. \$15.50.

Introduction to Infrared and Raman Spectroscopy. Norman B. Colthup, Lawrence H. Daly, and Stephen E. Wiberley. Academic Press, New York, ed. 2, 1975. xii, 524 pp., illus. \$24.

Introduction to Liquid State Physics. Clive A. Croxton. Wiley, New York, 1975. xii, 284 pp., illus. \$26.50.

Introduction to Materials Science. SI Edition. B. R. Schlenker. Wiley, New York, 1975. xx, 364 pp., illus. \$12.50.

Introduction to Matrix Methods in Optics. A. Gerrard and J. M. Burch. Wiley-Interscience, New York, 1975. xiv, 356 pp., illus. \$29.95. *Wiley Series in Pure and Applied Optics*.

Isotopes in Organic Chemistry. Vol. 1, Isotopes in Molecular Rearrangements. E. Buncl and C. C. Lee, Eds. Elsevier, New York, 1975. xvi, 302 pp., illus. \$41.75.

Laboratory Manual of Cell Biology. D. O. Hall and Shirley E. Hawkins, Eds. Crane, Rusak, New York, 1975. vi, 282 pp. Paper, \$9.75.

The Lament Flame. John D. Keating. Melbourne University Press, Carlton, Victoria, Australia, 1974 (U.S. distributor, International Scholarly Book Services, Portland, Ore.). 124 pp., illus. \$20.80.

Language and Linguistics in the People's Republic of China. Winfred P. Lehmann, Ed. University of Texas Press, Austin, 1975. x, 168 pp. Cloth, \$9.50; paper, \$3.95.

Library and Reference Facilities in the Area of the District of Columbia. Mildred Benton and Linda G. Marks, Eds. American Society for Information Science, Washington, D.C., ed. 9, 1975. vi, 240 pp. Paper, \$14.50.

The Life of Birds. Joel Carl Welty. Saunders, Philadelphia, ed. 2, 1975. xvi, 624 pp., illus. \$18.50.

Linear Differential Equations with Periodic Coefficients. V. A. Yakubovich and V. M. Star-

zhinskii. Translated from the Russian edition (Moscow, 1972) by D. Louvish. Halsted (Wiley), New York, and Israel Program for Scientific Translations, Jerusalem, 1975. Two volumes, xii + pp. 1-386, and xii + pp. 387-840. \$49.50.

Modern Plastics Technology. Raymond B. Seymour. Reston Publishing Co. (Prentice-Hall), Reston, Va., 1975. xiv, 268 pp., illus. \$14.95.

Mononuclear Phagocytes. In Immunity, Infection, and Pathology. Proceedings of a conference, Leiden, Netherlands, Sept. 1973. Ralph van Furth, Ed. Blackwell, Oxford, England, 1975 (U.S. distributor, Lippincott, Philadelphia). xviii, 1062 pp., illus. \$125.

1974 Yearbook of Herpetology. Herndon G. Dowling, Ed. Herpetological Information Search Systems, American Museum of Natural History, New York, 1975 (available from H. G. Dowling, Department of Biology, New York University). vi, 256 pp., illus. Cloth, \$15; paper, \$10.

Operations Research. Frederick S. Hillier and Gerald J. Lieberman. Holden-Day, San Francisco, ed. 2, 1974. xiv, 800 pp. \$22.50.

Personality Development in Two Cultures. A Cross-Cultural Longitudinal Study of School Children in Mexico and the United States. Wayne H. Holtzman, Rogelio Díaz-Guerrero, and Jon D. Swartz in collaboration with Luis Lara-Tapia and four others. University of Texas Press, Austin, 1975. xx, 428 pp. \$15. The Hogg Foundation Research Series.

Practical Scanning Electron Microscopy. Electron and Ion Microprobe Analysis. Joseph I. Goldstein and Harvey Yakowitz, Eds. Plenum, New York, 1975. xviii, 582 pp., illus. \$35.

Principles and Techniques of Scanning Electron Microscopy. Biological Applications. Vol. 3. M. A. Hayat, Ed. Van Nostrand Reinhold, New York, 1975. xx, 226 pp., illus. \$22.50.

A Textbook of Histology. William Bloom and Don W. Fawcett. Saunders, Philadelphia, ed. 10, 1975. xvi, 1034 pp., illus. \$29.50.

Thermal Imaging Systems. J. M. Lloyd. Plenum, New York, 1975. xx, 456 pp., illus. \$39.50. *Optical Physics and Engineering*.

Transpersonal Psychologies. Charles T. Tart, Ed. Harper and Row, New York, 1975. viii, 502 pp. \$16.50.

Treatise on Solid State Chemistry. Vol. 5, Changes of State. N. B. Hannay, Ed. Plenum, New York, 1975. xvi, 600 pp., illus. \$42.

Trends in Elementary Particle Theory. Papers from an institute, Bonn, Germany, 1974. H. Rollnik and K. Dietz, Eds. Springer-Verlag, New York, 1975. vi, 474 pp., illus. Paper, \$16. *Lecture Notes in Physics*, vol. 37.

Understanding Conflict and War. Vol. 1, The Dynamic Psychological Field. Rudolph J. Rummel. Sage, Beverly Hills, Calif., and Halsted (Wiley), New York, 1975 (distributor, Halsted). x, 342 pp., illus. \$17.50.

Vision in Fishes. New Approaches in Research. Papers from a NATO Advanced Study Institute, Lennoxville, Quebec, Aug. 1974. M. A. Ali, Ed. Plenum, New York, 1975. xiv, 836 pp., illus. \$62. *NATO Advanced Study Institutes Series A*, vol. 1.

Washington Information Directory 1975-76. Quadrangle (New York Times), New York, 1975. xxxii, 830 pp. Paper, \$7.95.

Water. A Comprehensive Treatise. Vol. 5, Water in Disperse Systems. Felix Franks, Ed. Plenum, New York, 1975. xviii, 366 pp., illus. \$37.50.

Women and the Power to Change. Florence Howe, Ed. McGraw-Hill, New York, 1975. xx, 182 pp. \$7.95. A Volume of Essays Sponsored by the Carnegie Commission on Higher Education.