

parameters differing by only a few percent of a cell-edge dimension, to have different crystal structures!) Unfortunately, the layer-stacking point of view requires the use of unfamiliar notations, and the reader will be surprised (and perhaps somewhat frightened) to find the NaCl structure denoted by the symbols

NaCl  $\text{Na}_0^{\text{A}}\text{Cl}_{17}^{\text{C}}\text{Na}_{33}^{\text{B}}\text{Cl}_6^{\text{A}}\text{Na}_{67}^{\text{C}}\text{Cl}_{33}^{\text{B}}$   
or

NaCl (cf 8)  $\text{Na}_0^{1+}\text{Cl}_6^{\text{C}}\text{Cl}_6^{\text{B}}\text{Na}_5^{\text{A}}$

These notations are perhaps more suitable for computers than for people, and it will be interesting to see whether some advantage can be taken of this situation.

Next there is a review of the physics and chemistry of structural stability. This is a complicated business, because geometrical effects, chemical bond effects, electronegativity effects, and energy band effects can all make important contributions to the free energy of an alloy system. These contributions cannot be calculated very accurately, and only small energy differences decide the stability of one structure compared to another. Another serious difficulty in making a theory of structural stability is that, in metals, atomic sizes are a function of the structure, rather than vice versa. Metals are *not* made of billiard balls! Thus the "theories" can at present provide only ad hoc explanations or, at best, prohibitions (such as Hume-Rothery's 15-percent rule), not predictions.

Finally, the actual structures are introduced—hundreds of them. Each is described with a short paragraph usually in terms either of layer stacking or of relationships to other structures. Most of the discussions are accompanied by very useful drawings, and in each case references are given to the experimental structural determination. This section of the book should prove indispensable to those working with metals having complex structures.

Simply because of its incredible information density, the reading of this book entails a fair amount of work. One can only imagine how much work it was to write it, and Pearson deserves our thanks for having done so.

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## Solid State Processes

**Point Defects and Diffusion.** C. P. FLYNN. Oxford University Press, New York, 1972. xii, 826 pp., illus. \$51. International Series of Monographs on Physics.

Diffusion is an important phenomenon controlling many solid state reactions and transformations. The utilization of diffusion, or, in as many occasions, the reduction of its effect, is not only of fundamental interest, but also of significance for various technological problems. This requires the understanding of the diffusion phenomenon and hence the study of point defect properties. Research activities in this field have grown steadily over the last 20-some years or so. It is interesting now to compare the book *Atom Movements*, a seminar proceedings published by the American Society for Metals in 1951, with this book by Flynn. One is certainly impressed by the wide range of problems associated with diffusion being studied in recent years.

This book is a comprehensive one, covering a broad spectrum of fundamental aspects of diffusion and point defect properties. It is also quite an impressive one in the depth that the author can manage in treating such a broad range of subject matter. For example, there is a fine chapter on the electronic states of point defects and, in the other domain of diffusion phenomena, an equally comprehensive treatment of the precipitation problem. It is perhaps not unusual to see such a variety of topics discussed by different experts in a conference proceedings, but to find them systematically developed by one author is not common.

This book first shows the fundamental aspects of the equilibrium point defects and how the vibrational and electronic properties of the crystal change as a result of interaction with the defects. After the author has established the basic properties of point defects, he considers their diffusional behavior under different driving forces in various types of crystals. The characteristics of point defects in the four main classes of crystals, molecular, ionic, valence, and metallic, occupy the last part of the book. The author approaches the subject usually by a qualitative discussion of the physics involved, then proceeds to formulate the problem in detail. Considerable effort has been spent in showing the details of many mathematical derivations in

the book. It appears to be the intention of the author that this book be used as an advanced level textbook. It should serve this purpose very well. Graduate students after completing the first one or two years' courses in physics or some related field should not encounter difficulties in understanding the material, and they will probably find this book a useful stepping-stone to the research field of point defects.

Some outstanding problems of current research interest have been included, among them the question of the validity of using the reaction rate theory to treat the details of the atomic jumping process, particularly the isotope effect; the dynamical theory of diffusion and the quantum effect of light interstitials in diffusion; the dielectric screening of impurity atoms in metallic and valence crystals; and the use of magnetic and optical resonance techniques to measure defect properties. These topics, of particular interest to the author, are explored to considerable depth. Researchers currently investigating diffusion and point defects would find the book very useful indeed.

PAUL S. HO

*IBM Watson Research Center,  
Yorktown Heights, New York*

## Books Received

**Advances in Metabolic Disorders.** Vol. 6. Rachmiel Levine and Rolf Luft, Eds. Academic Press, New York, 1972. xiv, 236 pp., illus. \$13.

**Advances in Virus Research.** Vol. 17. Kenneth M. Smith, Max A. Lauffer, and Frederik B. Bang, Eds. Academic Press, New York, 1972. x, 336 pp., illus. \$17.50.

**Aerosols and Atmospheric Chemistry.** Proceedings of a symposium, Los Angeles, Mar. 1971. G. M. Hidy, Ed. Academic Press, New York, 1972. xviii, 348 pp., illus. \$14.50.

**Albert Einstein.** Creator and Rebel. Banesh Hoffmann with the collaboration of Helen Dukas. Viking, New York, 1972. xvi, 272 pp., illus. \$8.95.

**Annual Report on Support of University Research 1971-72.** National Research Council of Canada, Ottawa, 1972. xiv, 618 pp. Paper, \$2.50. N.R.C. No. 12724.

**Annual Reports on the Progress of Chemistry.** Vol. 68, 1971, Section A: General, Physical, and Inorganic Chemistry. The Chemical Society, London, 1972 (available from the Publications Officer, Blackhorse Road, Letchworth, Herts., England). xvi, 546 pp., illus. £6.

**Annual Review of Materials Science.** Vol. 2. Robert A. Huggins, Richard H.

(Continued on page 706)

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Bube, and Richard W. Roberts, Eds. *Annual Reviews*, Palo Alto, Calif., 1972. x, 780 pp., illus. \$10.

**Annual Review of Physical Chemistry.** Vol. 23. H. Eyring, C. J. Christensen, and H. S. Johnston, Eds. *Annual Reviews*, Palo Alto, Calif., 1972. x, 556 pp., illus. \$10.

**Annual Review of the Schizophrenic Syndrome 1972.** Robert Cancro, Ed. Brunner/Mazel, New York; Butterworths, London, 1972. xii, 514 pp., illus. \$17.50.

**As They See It. Changing Values of College Youth.** Mary Lystad. Schenkman, Cambridge, Mass., 1973 (distributor, General Learning Press, Morristown, N.J.). xiv, 158 pp., illus. Cloth, \$6.95; paper, \$3.50.

**An Atlas of Galactic Neutral Hydrogen for the Region  $270^\circ \leq l \leq 310^\circ$ ;  $-7^\circ \leq b \leq 2^\circ$ .** Atlas de Hidrogeno Neutro Galactico para la Region  $270^\circ \leq l \leq 310^\circ$ ;  $-7^\circ \leq b \leq 2^\circ$ . Silvia L. Garzoli. Carnegie Institution of Washington, Washington, D.C., 1972. 122 pp. Paper, \$4.

**Behavior Change through Self-Control.** Marvin R. Goldfried and Michael Merbaum, Eds. Holt, Rinehart and Winston, New York, 1973. x, 438 pp., illus. Paper, \$5.50.

**The Biochemistry of the Nucleic Acids.** J. N. Davidson. Academic Press, New York, ed. 7, 1972. xiv, 396 pp., illus. \$12.50.

**Biological Oxidation of Nitrogen in Organic Molecules.** Proceedings of a symposium, London, Dec. 1971. J. W. Bridges, J. W. Gorrod, and D. V. Parke, Eds. Taylor and Francis, London; Halsted (Wiley), New York, 1972. xxii, 270 pp., illus. \$21.

**Blackberry Winter. My Earlier Years.** Margaret Mead. Morrow, New York, 1972. xiv, 306 pp., illus. \$8.95.

**Body Language and the Social Order.** Communication as Behavioral Control. Albert E. Scheffen with Alice Scheffen. Prentice-Hall, Englewood Cliffs, N.J., 1972. xvi, 208 pp., illus. \$6.95.

**A Brief Introduction to Piaget. The Growth of Understanding in the Young Child.** New Light on Children's Ideas of Number. Nathan Isaacs. Agathon, New York, 1973 (distributed by Schocken, New York). 122 pp. \$4.95.

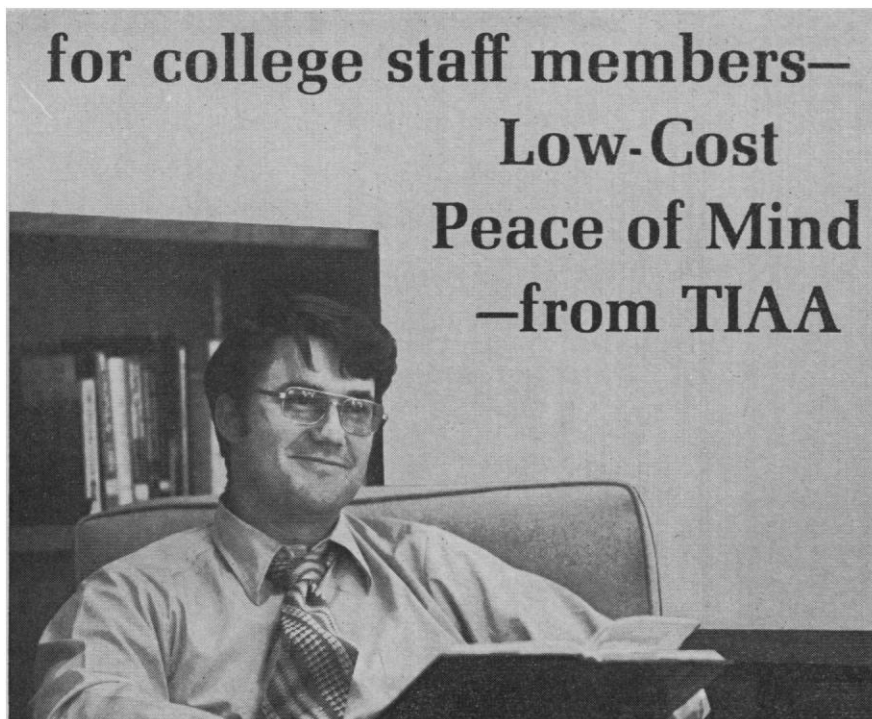
**Butterflies of Georgia.** Lucien Harris, Jr. University of Oklahoma Press, Norman, 1972. xxii, 326 pp., illus. \$7.95.

**Carbon-13 NMR Spectra. A Collection of Assigned, Coded, and Indexed Spectra.** LeRoy F. Johnson and William C. Jankowski. Wiley-Interscience, New York, 1972. Unpaged, illus. \$24.95.

**Carbon-13 NMR Spectroscopy.** J. B. Stothers. Academic Press, New York, 1972. xii, 560 pp., illus. \$24.

**Chemical Experimentation. An Integrated Course in Inorganic, Analytical, and Physical Chemistry.** Ursula A. Hofacker. Freeman, San Francisco, 1972. xii, 226 pp., illus. Paper, \$6.95. A Series of Books in Chemistry.

**Chemical Kinetics and Reactor Design.** A. F. Cooper and G. V. Jeffreys. Prentice-Hall, Englewood Cliffs, N.J., 1973. x, 390 pp., illus. \$18.95.



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**Classical Mechanics.** A Modern Perspective. V. Barger and M. Olsson. McGraw-Hill, New York, 1973. xii, 306 pp., illus. \$11.95. McGraw-Hill Series in Fundamentals of Physics: An Undergraduate Textbook Program.

**Classified Library of Congress Subject Headings.** Vol. 2, Alphabetic List. James G. Williams, Martha L. Manheimer, and Jay E. Daily, Eds. Dekker, New York, 1972. x, 486 pp. \$35. Books in Library and Information Science, vol. 2.

**Cloning.** David Shear. Walker, New York, 1972. 162 pp. \$5.95.

**College Algebra.** Moses Richardson and Leonard F. Richardson. Prentice-Hall, Englewood Cliffs, N.J., ed. 4, 1973. xii, 468 pp., illus. \$10.95.

**The Context of Social Psychology.** A Critical Assessment. Joachim Israel and Henri Tajfel, Eds. Published in cooperation with the European Association of Experimental Psychology by Academic Press, New York, 1972. viii, 438 pp., illus. \$19.50. European Monographs in Social Psychology.

**Conversations with the Bewildered.** Eugen Loeb. Translated from the German edition by George Gretton. Schenkman, Cambridge, Mass., 1972 (distributor, General Learning Press, Morristown, N.J.). 192 pp. Cloth, \$5.95; paper, \$3.95.

**Databanks in a Free Society.** Computers, Record-Keeping and Privacy. Alan F. Westin and Michael A. Baker. Quadrangle, New York, 1972. xxii, 522 pp. \$12.50.

**The Doomsday Syndrome.** John Mad-dox. McGraw-Hill, New York, 1972. x, 292 pp. \$6.95.

**Dynamic Aspects of Brain Scanning.** Jyoji Handa. University Park Press, Baltimore, 1972. vi, 170 pp., illus. \$22.50.

**Eco-Hysteries and the Technophobes.** Petr Beckmann. Golem Press, Boulder, Colo., 1973. 216 pp., illus. \$6.95.

**Encounters with Arctic Animals.** Fred Bruemmer. American Heritage Press, New York, 1972. 254 pp., illus. \$14.95.

**Environmental Design Perspectives.** Viewpoints on the Profession, Education and Research. Wolfgang F. E. Preiser and J. Thomas Regan, Eds. Virginia Polytechnic Institute and State University College of Architecture, Blacksburg, 1972. ix, 151 pp., illus. Paper, \$3.50. Man-Environment Systems: Focus Series, vol. 1.

**Evolution, Mammals, and Southern Continents.** Allen Keast, Frank C. Erk, and Bentley Glass, Eds. State University of New York Press, Albany, 1972. 544 pp., illus. Cloth, \$17.50; microfiche, \$12.50.

**Family and Community in the Kibbutz.** Yonina Talmon. Harvard University Press, Cambridge, Mass., 1972. xviii, 266 pp., illus. \$12.

**Field Research.** Strategies for a Natural Sociology. Leonard Schatzman and Anselm L. Strauss. Prentice-Hall, Englewood Cliffs, N.J., 1973. x, 150 pp. Paper, \$3.95. Prentice-Hall Methods of Social Science Series.

**Find a Falling Star.** Harvey H. Nininger. Eriksson, New York, 1972. xii, 254 pp., illus. \$8.95.

**The Fortunes of the West.** The Future of the Atlantic Nations. Theodore Geiger. Indiana University Press, Bloomington, 1973. xiv, 304 pp. \$10.



**Fundamentals of Biometry.** L. N. Balaam. Wiley, New York, 1972. xiv, 260 pp., illus. \$12.95.

**Galileo's Intellectual Revolution.** Middle Period, 1610-1632. William R. Shea. Science History Publications (Neale Watson Academic), New York, 1972. xii, 204 pp., illus. \$15.95.

**Geothermal World Directory.** Katherine F. Meadows, Ed. Published by the editor, P.O. Box 997, Glendora, Calif. 91740, 1972. 190 pp., illus. \$15.

**Gibbon and Siamang.** Vol. 1, Evolution, Ecology, Behavior, and Captive Maintenance. Duane M. Rumbaugh, Ed. Karger, Basel, 1972 (U.S. distributor, Phiebig, White Plains, N.Y.). x, 264 pp., illus. \$37.80.

**The Great Image Sellers.** The Study of the Causes of Difficulties among Immigrants in Canada. T. M. Luong and C. M. Luong. Pageant-Poseidon, Brooklyn, 1972. xii, 146 pp. \$5.95.

**Grzimek's Animal Life Encyclopedia.** English edition. Bernhard Grzimek, Ed. Vol. 7, Birds, I. Bernhard Grzimek, Wilhelm Meise, Günther Niethammer, Joachim Steinbacher, and Erich Thenius, Eds. Van Nostrand Reinhold, New York, 1972. 580 pp., illus. \$29.95. The set (13 volumes), \$325.

**Health Care.** Can There Be Equity? The United States, Sweden, and England. Odin W. Anderson. Wiley, New York, 1972. xxii, 274 pp., illus. \$11.95.

**Hématologie Géographique.** Vol. 2, Variations Hématologiques Acquisées, l'Hématologie et l'Évolution. Jean Bernard and Jacques Ruffié. Masson, Paris, 1972. xii, 358 pp., illus. Paper, 110 F.

**Hepatitis-Associated Antigen and Viruses.** A. J. Zuckerman. North-Holland, Amsterdam; Elsevier, New York, 1972. x, 222 pp., illus. \$20.75.

**Humanistic Psychology and the Research Tradition.** Their Several Virtues. Irvin L. Child. Wiley, New York, 1973. x, 214 pp. \$8.95.

**Hunger and Satiety in Health and Disease.** F. Reichsman, Ed. Karger, Basel, 1972 (U.S. distributor, Phiebig, White Plains, N.Y.). xii, 336 pp., illus. \$37.80. Advances in Psychosomatic Medicine, vol. 7.

**Inorganic Reaction Mechanisms.** Part 2. John O. Edwards, Ed. Interscience (Wiley), New York, 1972. viii, 584 pp., illus. \$29.95. Progress in Inorganic Chemistry.

**Instrumental Analysis of Cotton Cellulose and Modified Cotton Cellulose.** Robert T. O'Connor, Ed. Dekker, New York, 1972. xii, 490 pp., illus. \$29.50. Fiber Science Series, vol. 3.

**Intergovernmental Relations in the Administration and Performance of Research on Air Pollution.** Irwin Feller, Alfred J. Engel, Robert S. Friedman, Donald C. Menzel, Jr., and John F. Sacco. Pennsylvania State University Center for the Study of Science Policy, University Park, 1972. x, 206 pp., illus. Paper, \$5.

**International Biological Programme Tundra Biome.** Proceedings of a meeting, Leningrad, Oct. 1971. F. E. Wielgolaski and Th. Rosswall, Eds. Swedish IBP Committee, Stockholm, 1972. 320 pp., illus. Paper, \$4.

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**in and History of Modern Astronomy.** New York, Aug. 1971. Richard Berendzen, Ed. New York Academy of Sciences, New York, 1972. 276 pp., illus. Paper, \$24. Annals of the New York Academy of Sciences, vol. 198.

**Introduction to Ethology.** The Biology of Behavior. Jean-Claude Ruwet. Translated from the French by Joyce Diamanti. International Universities Press, New York, 1972. 208 pp., illus. \$10.

**Introduction to Plant Biochemistry.** T. W. Goodwin and E. I. Mercer. Pergamon, New York, 1972. viii, 360 pp., illus. \$13. Commonwealth and International Library, Biochemistry Division.

**An Introduction to Statistical Mechanics.** Philippe Dennerly. Wiley, New York, 1972. x, 118 pp., illus. \$9.75.

**Introduction to the Theory of the Raman Effect.** J. A. Koningstein. Reidel, Dordrecht, Holland, 1972. x, 166 pp., illus. Cloth, \$16; paper, \$9.25.

**The Khanna Study.** Population Problems in the Rural Punjab. John B. Wyon and John E. Gordon. Harvard University Press, Cambridge, Mass., 1971. xxvi, 438 pp., illus. \$14.

**Language Intervention with the Retarded.** Developing Strategies. James E. McLean, David E. Yoder, Richard L. Schiefelbusch, and Barbara M. McLean, Eds. University Park Press, Baltimore, 1972. x, 270 pp., illus. \$11.50.

**Lasers in Industry.** S. S. Charschan, Ed. Van Nostrand Reinhold, New York, 1972. xviii, 642 pp., illus. \$24.50.

**Licit and Illicit Drugs.** The Consumers Union Report on Narcotics, Stimulants, Depressants, Inhalants, Hallucinogens, and Marijuana—including Caffeine, Nicotine, and Alcohol. Edward M. Brecher and the Editors of Consumers Reports. Little, Brown, Boston, 1972. xvi, 624 pp., illus. \$12.50.

**Logic Design Algorithms.** D. Zissos. Oxford University Press, New York, 1972. x, 458 pp., illus. \$29. Harwell Series.

**Marihuana.** Deceptive Weed. Gabriel G. Nahas. Raven, New York, 1973. xviii, 334 pp., illus. \$12.50.

**The Mechanism of Protein Synthesis and Its Regulation.** L. Bosch, Ed. North-Holland, Amsterdam; Elsevier, New York, 1972. xiv, 590 pp., illus. \$38. Frontiers of Biology, vol. 27.

**MHD Electrical Power Generation.** 1972 Status Report. Joint ENEA/IAEA International Liaison Group on MHD Electrical Power Generation. International Atomic Energy Agency, Vienna, 1972. pp. 301–378, illus. Paper. Reprinted from *Atomic Energy Review*, vol. 10, No. 3.

**Microscopic Theory of the Nucleus.** Judah M. Eisenberg and Walter Greiner. North-Holland, Amsterdam; Elsevier, New York, 1972. xiv, 520 pp., illus. \$33.50. Nuclear Theory, vol. 3.

**Molecular Genetics and Developmental Biology.** A symposium, Woods Hole, Mass., Sept. 1971. Maurice Sussman, Ed. Prentice-Hall, Englewood Cliffs, N.J., 1972. xii, 482 pp., illus. \$12.

**The Moon.** A symposium, Newcastle-

upon-Tyne, England, Mar. 1971. Stanley Keith Runcorn and Harold C. Urey, Eds. Reidel, Dordrecht, Holland, 1972. xvi, 472 pp., illus. \$36. International Astronomical Union Symposium No. 47.

**Multiplicative Ideal Theory.** Robert Gilmer. Dekker, New York, 1972. xii, 608 pp. \$24.50. Pure and Applied Mathematics, 12.

**Natural Rubber and the Synthetics.** P. W. Allen. Wiley, New York, 1972. xvi, 256 pp., illus. \$15.75.

**New Hope for the Mentally Retarded Stymied by the FDA.** Henry Turkel. Vantage, New York, 1972. 242 pp., illus. \$5.95.

**Nutrients in Natural Waters.** Herbert E. Allen and James R. Kramer, Eds. Wiley, New York, 1972. xii, 458 pp., illus. \$21.50. Environmental Science and Technology.

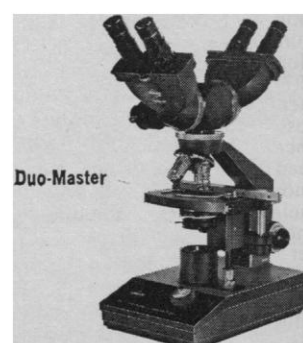
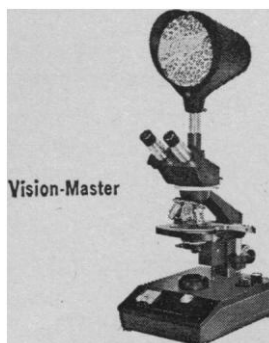
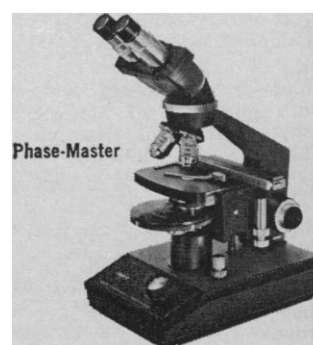
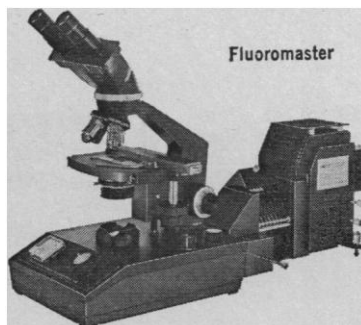
**Nutrition and Diabetes Mellitus.** Nutrizione e Diabete Mellito. A conference, Capri, Italy, Mar. 1972. E. R. Froesch and J. Yudkin, Eds. Casa Editrice Il Ponte, Milan, 1972. x, 688 pp., illus. \$50. *Acta Diabetologica Latina*, vol. 9, supplement 1.

**Objective Knowledge.** An Evolutionary Approach. Karl R. Popper. Oxford University Press, New York, 1972. x, 380 pp., illus. Cloth, \$13.50; paper, \$3.95.

**Oxides and Oxide Films.** Vol. 1. John W. Diggle, Ed. Dekker, New York, 1972. xvi, 538 pp., illus. \$27.50. The Anodic Behavior of Metals and Semiconductors Series.

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**Physical Sciences Engineering.** A Directory of Information Resources in the United States. National Referral Center Science and Technology Division. Library of Congress, Washington, D.C., 1971 (available from the Superintendent of Documents, Washington, D.C.). 804 pp. Paper, \$6.50.

**Systems Building.** Proceedings of a conference, Gaithersburg, Md., Feb. 1972. Kenneth F. Reinschmidt, Ed. Sponsored by the Committee on Systems Building of the American Society of Civil Engineers and by the National Science Foundation. Available from the National Technical Information Service, Springfield, Va. iv, 344 pp., illus. Paper, \$3.

**Systematics and Behavior of South American Flickers (Aves, Colaptes).** Lester L. Short. American Museum of Natural History, New York, 1972. 110 pp., illus. Paper, \$4. Bulletin of the American Museum of Natural History, vol. 149, article 1.

**The Teachings of Don Juan.** A Yaqui Way of Knowledge. Carlos Castaneda. University of California Press, Berkeley, 1973. xii, 196 pp. Paper, \$2.45. Reprint of the 1968 edition.

**Thermodynamic Aspects of Developmental Biology.** A. I. Zotin. Karger, Basel, 1972 (U.S. distributor, Phiebig, White Plains, N.Y.). viii, 160 pp., illus. \$18.50. Monographs in Developmental Biology, vol. 5.

**Transplantation in Primates.** G. P. Murphy, Ed. Karger, Basel, 1972 (U.S. distributor, Phiebig, White Plains, N.Y.). viii, 140 pp., illus. \$16.55. Primates in Medicine, vol. 7.

**Über die Zitierfähigkeit von Zeitschriften auf dem Gebiet der Physik.** Hinrich Dierks. Greven, Köln, Germany, 1972. x, 120 pp., illus. Paper, 21.80 DM. Arbeiten aus dem Bibliothekar-Lehrinstitut des Landes Nordrhein-Westfalen, Heft 41.

**Under Mount Saint Elias.** The History and Culture of the Yakutat Tlingit. Frederica de Laguna. Smithsonian Institution Press, Washington, D.C., 1972 (available from the Superintendent of Documents, Washington, D.C.). 3 vols. Part 1, pp. i-xxiv, + pp. 1-548, illus. Part 2, pp. xxv-xlii + pp. 549-914, illus. Part 3, pp. xliii-1 + pp. 915-1395, illus. Paper, \$16.50. Smithsonian Contributions to Anthropology, vol. 7.

**The Upper Mantle.** A symposium, Moscow, Aug. 1971. A. R. Ritsema, K. Aki, P. J. Hart, and L. Knopoff, Eds. Elsevier, New York, 1972. xii, 644 pp., illus. \$20. Developments in Geotectonics, 4. Upper Mantle Scientific Report No. 41. Reprinted from *Tectonophysics*, vol. 13.

**Uranium Enrichment.** A Report of an Ad Hoc Forum Policy Committee. Atomic Industrial Forum, New York, 1972. vi, 140 pp., illus. Spiral bound, \$20; to members, \$10.

**Les Volcans et la Dérive des Continents.** Haroun Tazieff. Presses Universitaires de France, Paris, 1972. 132 pp. + plates. Paper, 20 F. Collection SUP, section "le Physicien."

**Water Quality in a Stressed Environment.** Readings in Environmental Hydrology. Wayne A. Pettyjohn, Ed. Burgess, Minneapolis, 1972. x, 310 pp., illus. Paper, \$4.95.