

sary indignity. Publishers should show a little more consideration for the optically infirm.

Criticisms over, the question remains whether these volumes meet the criteria posed at the beginning of this review. Emphatically, yes. The research worker, teacher, or graduate student has readily available over 4600 references on various aspects of the physiology of molluscs. Most of the authors have enlarged on their own views, and their speculations are not only stimulating but have heuristic value. Both volumes contain extensive indexes (subject, author, and systematic) which allow the reader to get around in the text easily. *Physiology of Mollusca* is an indispensable addition to the growing list of group-oriented treatises.

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## Plasmas and Magnetic Fields

**Reviews of Plasma Physics.** Vol. 2. M. A. LEONTOVICH, Ed. Translated from the Russian edition (Moscow, 1963) by Herbert Lashinsky. Consultants Bureau, New York, 1966. 305 pp., illus. \$12.50.

This book is the second in a series of volumes setting forth the status, as seen by our Soviet colleagues, of theoretical plasma physics. The four articles it includes are concerned with the problem of utilizing a magnetic field to contain a plasma, and are guided by the objective of achieving a controlled thermonuclear reaction.

The first, and longest, article was written by A. I. Morozov and L. S. Solov'ev and is devoted to the structure of magnetic fields. Since plasma tends to stream rapidly along magnetic lines of force, it is desirable to know where the lines go. Can they be confined within a given volume or within a thin shell? This is a problem of considerable subtlety and complexity which has not been answered completely. The current status is rather well presented in this article, along with more mundane material on the theoretical construction of particular magnetic field configurations.

The next two articles, by V. D. Shafaranov and B. B. Kadomtsev respectively, discuss equilibrium and stability and are based on the model in which the plasma is approximated by its macroscopic pressure and velocity. The article

on equilibrium is quite complete. The other gives an excellent description of the theory but does not exploit that power to treat complex geometries which is its chief reason for existence. Also, this article seems more dated than the others.

The last article was written by the same authors as the first. It deals with the behavior of individual charged particles in complex magnetic and electric fields. Corrections to simple streaming along field lines are treated adequately but in less detail than is available elsewhere. Perhaps this article was included here because the problem of finding confined trajectories is analogous to that of finding contained magnetic field lines.

The overall quality of the volumes in this series is quite high. Any specialist in the field will find he needs access to a copy of this one. Others will be mainly interested in the section (6) of the first article that deals with the confinement of magnetic lines of force.

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## Books Received

**The Scientific Conscience.** Reflections on the modern biologist and humanism. Catherine Roberts. Braziller, New York, 1967. 144 pp. \$4.50.

**The Solid-Gas Interface.** vol. 1. E. Alison Flood, Ed. Dekker, New York, 1967. 532 pp. Illus. \$21.75.

**Structural Geology of Folded Rocks.** E. H. Timothy Whitten. Rand McNally, Chicago, 1966. 692 pp. Illus. \$10.

**Synopsis of Histology.** Henry J. Werner. McGraw-Hill, New York, ed. 2, 1967. 201 pp. Illus. Paper, \$4.75.

**Taxonomy of Flowering Plants.** C. L. Porter. Freeman, San Francisco, ed. 2, 1967. 486 pp. Illus. \$7.75.

**Theory of Self-Adaptive Control Systems.** Proceedings of the Second IFAC Symposium (Teddington, England), September 1965. P. H. Hammond, Ed. Plenum, New York, 1966. 375 pp. Illus. \$15. Thirty-seven papers.

**Topics in Recreational Mathematics.** J. H. Cadwell. Cambridge Univ. Press, New York, 1966. 192 pp. Illus. \$6.50.

**Ultrasonic Methods of Testing Materials.** Leszek Filipczynski, Zdzislaw Pawlowski, and Jerzy Wehr. Translated from the second Polish edition (Warsaw, 1963) by K. R. Schlachter. J. Blitz, Translation Ed. Butterworth, Washington, D.C., 1966. 288 pp. Illus. \$13.

**Understanding Chemistry.** vols. 1-5. vol. 1, *Chemical Quantities: Gram-Atoms and Moles* (127 pp.); vol. 2, *Chemical Bonding* (128 pp.); vol. 3, *Chemical Reactions* (124 pp.); vol. 4, *Chemical Equi-*

*libria* (128 pp.); vol. 5, *Chemical Systems: Thermochemistry, Kinetics, and Colligative Properties* (160 pp.). Gordon M. Barrow, Malcolm E. Kenney, Jean D. Lassila, Robert L. Little, and Warren E. Thompson. Benjamin, New York, 1967. Illus. Paper, \$1.75 each volume; \$6.95 set.

**Unitary Symmetries and Their Application to High Energy Physics.** M. Gourdin. North-Holland, Amsterdam; Interscience (Wiley), New York, 1967. 315 pp. Illus. \$12.75.

**Utopias and Utopian Thought.** Frank E. Manuel, Ed. Beacon Press, Boston, 1967. 346 pp. Paper. \$2.45. Reprint, 1966 edition.

**Vacuum Sealing Techniques.** A. Roth. Pergamon, New York, 1966. 859 pp. Illus. \$36.

**Visual Presentation of Invisible Processes.** Anton Stankowski. Hastings House, New York, 1967. 127 pp. Illus. \$16.50. In English, German, and French.

**Voices in the Classroom: Public Schools and Public Attitudes.** Peter Schrag. Beacon Press, Boston, 1967. 304 pp. Paper, \$2.25. Reprint, 1965 edition.

**Vorträge des Internationalen Symposiums "Erdolmikrobiologie"** (Brno), 1964. Ivan Málek and Wilhelm Schwartz, Eds. Akademie-Verlag, Berlin, 1966. 240 pp. Illus. Paper. Thirty-five papers.

**Water Production Using Nuclear Energy.** A symposium held in March 1966. Sponsored by Department of Nuclear Engineering, University of Arizona; Arizona Atomic Energy Commission; and U.S. Atomic Energy Commission. Roy G. Post and Robert L. Seale, Eds. Univ. of Arizona Press, Tucson, 1966. 404 pp. Illus. \$7.50. Twenty-seven papers.

**Water: The Vital Essence.** Peter Briggs. Harper and Row, New York, 1967. 235 pp. Illus. \$5.95.

**Wave Propagation and Turbulent Media.** Roy N. Adams and Eugene D. Denman. Elsevier, New York, 1966. 134 pp. Illus. \$7.50.

**Weak Interactions and High-Energy Neutrino Physics.** Course 32, International School of Physics "Enrico Fermi." T. D. Lee, Ed. Academic Press, New York, 1966. 358 pp. Illus. \$16. Thirteen papers.

**The Wealth of India: Raw Materials.** vol. 7, *N-Pe*. Publications and Information Directorate, CSIR, New Delhi, 1966. 370 pp. Illus.

**Weather and Climate.** R. C. Sutcliffe. Norton, New York, 1966. 206 pp. Illus. \$5.95.

**Alfred Werner: Founder of Coordination Chemistry.** George B. Kauffman. Springer-Verlag, Berlin, 1966. 143 pp. Illus. Paper, DM. 24.

**The Woman in America.** Robert Jay Lifton. Beacon Press, Boston, 1967. 303 pp. Illus. Paper, \$2.45. Reprint, 1965 edition.

**The World of the Moon.** Henry C. King. Crowell, New York, 1967. 135 pp. Illus. \$3.95.

**X-Ray Determination of Electron Distributions.** Richard J. Weiss. North-Holland, Amsterdam; Interscience (Wiley), New York, 1966. 212 pp. Illus. \$10.50. Series of Monographs on Selected Topics in Solid State Physics, vol. 6.

**The Year Book of the Royal Society of London.** The Royal Society, London, 1967. 374 pp.