

Ridge, where he was in charge of a Reactor Education Program. One of his students was Admiral Hyman Rickover.

In 1949, Seitz moved to the University of Illinois, where he was, successively, professor of physics, head of the department, dean of the graduate college, and vice-president for research. In spite of continuing frenetic activities, he took time to write two important books—*Modern Theory of Solids* (1940) and *The Physics of Metals* (1943)—and (with David Turnbull) to edit the ongoing series *Solid State Physics* (began in 1955).

Seitz served as president of the National Academy of Sciences from 1962 to 1969 and then as president of Rockefeller University from 1968 to 1978. Again, he interacted with leading scientists and with others in fields of politics and finance. His comments about them will be of special interest to physicists and others who have known of the names of famous scientists of this century. In keeping with Seitz's habits of traveling often and far, there are discontinuities in his narrative. Whatever the imperfections, however, significance remains.

Philip H. Abelson

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Books Received

Aotus. The Owl Monkey. Janet F. Baer, Richard E. Weller, and Ibulaimu Kakoma, Eds. Academic Press, San Diego, CA, 1994. xx, 380 pp., illus. \$74.95.

Biostatistics. A Foundation for Analysis in the Health Sciences. 6th ed. Wayne W. Daniel. Wiley, New York, 1994. xvi, 780 pp., illus. \$48. Applied Probability and Statistics.

Blindness and Children. An Individual Differences Approach. David H. Warren. Cambridge University Press, New York, 1994. x, 380 pp. \$59.95; paper, \$22.95.

Container Molecules and Their Guests. Donald J. Cram and Jane M. Cram. Royal Society of Chemistry, Letchworth, Herts, U.K., 1994 (U.S. distributor, CRC, Boca Raton, FL). xiv, 223 pp., illus. £49.50. Monographs in Supramolecular Chemistry, vol. 4.

An Equation that Changed the World. Newton, Einstein, and the Theory of Relativity. Harald Fritzsch. University of Chicago Press, Chicago, 1994. xx, 279 pp., illus. \$29.95. Translated from the German edition (Munich, 1988) by Karin Heusch.

History of the Australian Vegetation. Cretaceous to Recent. Robert S. Hill, Ed. Cambridge University Press, New York, 1994. x, 433 pp., illus. \$125.

Immunobiology. The Immune System in Health and Disease. Charles A. Janeway, Jr. and Paul Travers. Current Biology, London, and Garland, New York, 1994.

The Metabotropic Glutamate Receptors. P. Jeffrey Conn and Jitendra Patel, Eds. Humana, Totowa, NJ, 1994. x, 277 pp., illus. \$99.50. The Receptors.

Meteorite Craters and Impact Structures of the Earth. Paul Hodge. Cambridge University Press, New York, 1994. viii, 124 pp., illus. \$49.95.

Microscopic Anatomy of Invertebrates. Vol. 14, Echinodermata. Frederick W. Harrison and Fu-Shiang

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Edited by A R Cossins

1 85578 062 3 July 1994 US\$105.00

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Edited by A J Turner

1 85578 044 5 Aug 1994 US\$105.00

Membrane Protein Expression Systems:

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Edited by Gwyn Gould

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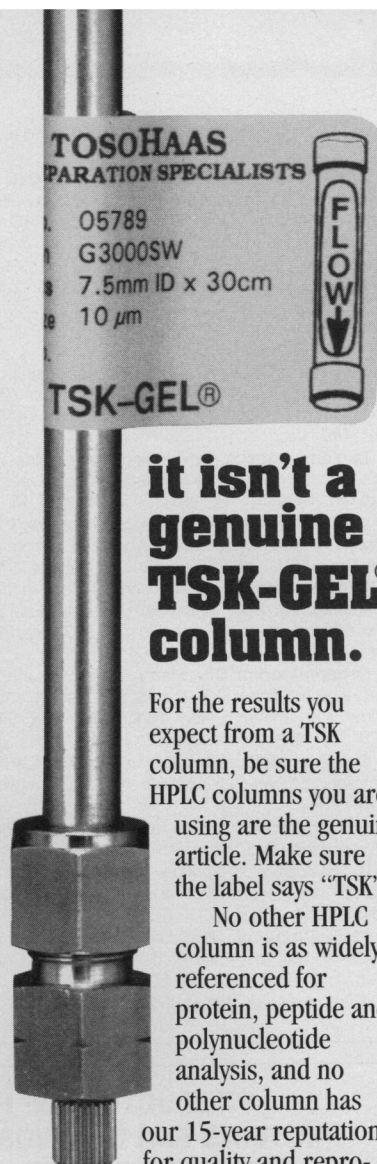
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Chia, Eds. Wiley-Liss, New York, 1994. xiv, 510 pp., illus. \$185.

Molecular Mechanisms of Epithelial Cell Junctions. From Development to Disease. Santra Citi. Landes, Georgetown, TX, 1994 (distributor, CRC Press, Boca Raton, FL). xii, 308 pp., illus. \$89.95. Molecular Biology Intelligence Unit.

Molecular Politics. Developing American and British Regulatory Policy for Genetic Engineering, 1972-1982. Susan Wright. University of Chicago Press, Chicago, 1994. xxiv, 591 pp. \$75; paper, \$29.95.

Moral Imagination. Implications of Cognitive Science for Ethics. Mark Johnson. University of Chicago Press, Chicago, 1994. xiv, 287 pp. Paper, \$14.95. Reprint, 1993 ed.

Myxomycetes. A Handbook of Slime Molds. Steven L. Stephenson and Henry Stempfen. Timber Press, Portland, OR, 1994. 183 pp., illus., + plates. \$34.95.

Optimized-Motion Planning. Theory and Implementation. Cherif Ahrikencheikh and Ali Seireg. Wiley, New York, 1994. xvi, 366 pp., illus. + diskette. \$74.95.

Organic Memory. History and the Body in the Late Nineteenth and Early Twentieth Centuries. Laura Otis. University of Nebraska Press, Lincoln, 1994. xvi, 297 pp. \$37.50. Texts and Contexts, vol. 2.

Organofluorine Chemistry. Principles and Commercial Applications. R. E. Banks, B. E. Smart, and J. C. Tatlow, Eds. Plenum, New York, 1994. xxvi, 644 pp. \$125. Topics in Applied Chemistry.

Organometallics in Synthesis. A Manual. M. Schlosser, Ed. Wiley, New York, 1994. x, 603 pp., illus. \$100.

The Physics of Atoms and Quanta. Introduction to Experiments and Theory. 4th ed. Hermann Haken and Hans Christoph Wolf. Springer-Verlag, New York, 1994. xviii, 467 pp., illus. \$49. Translated from the German edition (Berlin, 1993).

Plant Allometry. The Scaling of Form and Process. Karl J. Niklas. University of Chicago Press, Chicago, 1994. xvi, 395 pp., illus. \$62.50; paper, \$24.95.

Polynominoes. Puzzles, Patterns, Problems, and

Packings. 2nd ed. Warren Lushbaugh. Princeton University Press, Princeton, NJ, 1994. xii, 184 pp., illus. \$24.95 or £19.95.

Pond Lake River Sea. Maryjo Koch. Collins, San Francisco, 1994. Unpaged, illus. \$28.

Postmodernism and Social Inquiry. David R. Dickens and Andrea Fontana, Eds. Guilford, New York, 1994. xii, 259 pp. \$40; paper, \$18.95. Critical Perspectives.

Problems With Patients. Managing Complicated Transactions. Kingsley Norton and Sam Smith. Cambridge University Press, New York, 1994. xviii, 174 pp., illus. \$54.95; paper, \$24.95.

Progress in Robotics and Intelligent Systems. Vol. 1. George W. Zobrist and C. Y. Ho, Eds. Ablex, Norwood, NJ, 1994. vi, 304 pp., illus. \$65.

Providing Pharmacological Access to the Brain. Alternate Approaches. Thomas R. Flanagan, Dwayne F. Emerich, and Shelley R. Winn, Eds. Academic Press, San Diego, CA, 1994. xviii, 508 pp., illus. \$95. Methods in Neurosciences, vol. 21.

The Science of Desire. The Search for the Gay Gene and the Biology of Behavior. Dean Hamer and Peter Copeland. Simon and Schuster, New York, 1994. 272 pp., illus. \$23.

Science Strategy for the Earth Observing System. Ghassem Asrar and Jeff Dozier. AIP Press, Woodbury, NY, 1994. viii, 119 pp. Paper, \$12.95.

The Scientific Renaissance, 1450-1630. Marie Boas Hall. Dover, New York, 1994. 376 pp., illus. + plates. Paper, \$10.95. Reprint, 1962 ed.

Spectroscopy of Molecular Rotation in Gases and Liquids. A. I. Burshtein and S. I. Temkin. Cambridge University Press, New York, 1994. viii, 300 pp., illus. \$64.95.

Spiral Geometry. The Principles. Lere O. Shakunle. Hitit, Berlin, 1994. 170 pp., illus. Paper, DM 29.80.

Statistical Mechanics, Protein Structure, and Protein Substrate Interactions. Sebastian Doniach, Ed. Plenum, New York, 1994. x, 406 pp., illus. \$115. NATO ASI Series B, vol. 325. From a workshop, Cargèse, France, June 1993.

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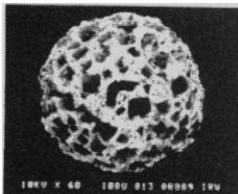
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