

further incidentals, such as Fermat's views in physics and on probability, as well as a "Bibliographical essay and chronological conspectus of Fermat's works." These round out a remarkably satisfying and cogent analysis of the work of one who, though a nonprofessional living in the "century of genius," led all of his contemporaries in the setting and solving of mathematical problems.

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## Radiation Chemistry

**Neutron Activation Analysis.** D. DE SOETE, R. GIJBELS, and J. HOSTE. Wiley-Interscience, New York, 1972. xx, 836 pp., illus. \$39.50. Chemical Analysis, vol. 34.

This book tries to give an up-to-date account of the fast-moving field of neutron activation analysis and to provide the scientist new to the field with a rather deep background in the basic nuclear physics of the generation and decay of neutron-activated radionuclides. It performs the second task very well, so well in fact that the first stands a little in shadow. This basic part (actually standing first in the book) spans four chapters after the brief introduction, amounts to about 40 percent of the text, and could be moved to a text on nuclear chemistry without major change. Though one may question the magnitude of the effort, the authors surely construct a firm foundation for the discussion of analytical procedures, to follow.

They then move to the "nuts and bolts" of activation analysis, with a long, valuable chapter on "Preparation of samples and standards": valuable because they gather into one place all the data bearing on the introduction of impurities in reagents and through sampling, handling, and packaging, and the effects of interfering nuclear reactions—in short, because they chart a path through some of the worst pitfalls that surround the activation analyst. My only objection to this chapter is that the discussion of interlaboratory comparison of (especially) multi-element standards is brief and incomplete, a deficiency that is surprising inasmuch as the authors have already cited the International Atomic Energy Agency

interlaboratory study in the second chapter. Also, they mention only the two early U.S. Geological Survey standards W-1 and G-1, and not the six current, widely used and more carefully prepared standard rocks. I could not find any reference to Flanagan's two important summaries, though they do refer to the work of Gordon *et al.*

I found the chapter on "post-irradiation radiochemical separations" excellent, with well-organized tables and flow diagrams that will be worth their weight in gold, even at today's speculative prices. The next chapter, "Analysis without chemical separation," unfortunately is somewhat out of date in its emphasis on spectrum stripping and data smoothing and analysis via decay curve decomposition. This chapter may be of use to those still working with NaI-Tl detectors, but that is not where the action is today.

The book concludes with a series of excellent tables and bibliographies—these amount to close to one-third of the whole book and will be of value to anyone in the field. In summary it can be said that the authors have cast their net wide, are perhaps a little unbalanced in emphasis, but have produced a book that will find wide acceptance and use in the field of neutron activation analysis.

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## Books Received

**Atomic Masses and Fundamental Constants.** Proceedings of a conference, Teddington, England, Sept. 1971. Vol. 4. J. H. Sanders and A. H. Wapstra, Eds. Plenum, New York, 1973. xvi, 572 pp., illus. \$28.

**Behavioral and Social Effects of Marijuana.** MSS Information Corporation, New York, 1973. 176 pp., illus. \$15.

**Bibliography of Scientific Publications and Presentations Relating to Planetary Quarantine.** 1966–1971. Frank D. Bradley and Marcel R. Nadel. George Washington University, Washington, D.C., 1973. vi, 216 pp.

**Biology of Brain Dysfunction.** Vol. 1. Gerald E. Guall, Ed. Plenum, New York, 1973. xviii, 404 pp., illus. \$35.

**Concrete Technology.** Vol. 1, Properties of Materials. D. F. Orchard. Halsted (Wiley), New York, ed. 3, 1973. xvi, 376 pp., illus. \$26.

**Developmental Nephrology.** Wallace W. McCrory. Harvard University Press, Cambridge, Mass., 1972. xiv, 216 pp., + plates. \$12. A Commonwealth Fund Book.

**Engine Emissions.** Pollutant Formation and Measurement. George S. Springer and Donald J. Patterson, Eds. Plenum, New York, 1973. xii, 372 pp., illus. \$28.50.

**Foundations of Behavioral Research.** Fred N. Kerlinger. Holt, Rinehart and Winston, New York, ed. 2, 1973. xxii, 742 pp., illus. \$15.

**The Gods and the Kings.** A Glance at Creative Power. Jacques Rueff. Translated from the French edition (Paris, 1968) by George Robinson and Roger Glemet. Macmillan, New York, and Collier Macmillan, London, 1973. xiv, 248 pp. \$8.95.

**Human Biochemical Genetics.** MSS Information Corporation, New York, 1973. 154 pp., illus. \$15.

**Human Evolution.** Proceedings of a symposium. M. H. Day, Ed. Taylor and Francis, London, and Barnes and Noble (Harper and Row), New York, 1973. viii, 154 pp., illus. \$11. Symposia of the Society for the Study of Human Biology, vol. 11.

**Interdisciplinary Investigation of the Brain.** Proceedings of a symposium, Oxford, England, Apr. 1972. J. P. Nicholson, Ed. Plenum, New York, 1972. x, 238 pp., illus. \$15. Advances in Behavioral Biology.

**Life-Span Developmental Psychology.** Proceedings of a conference, Morgantown, W. Va., 1971. John R. Nesselroade and Hayne W. Reese, Eds. Academic Press, New York, 1973. xvi, 364 pp., illus. \$16.50.

**Molecular Motions in Amorphous Solids and Liquids.** Proceedings of a symposium, Manchester, Apr. 1972. Chemical Society, London, 1973. 198 pp., illus. Paper, £4. Faraday Symposia of the Chemical Society, No. 6.

**Naturally Occurring Acetylenes.** F. Bohlmann, T. Burkhardt, and C. Zdero. Academic Press, New York, 1973. x, 548 pp., illus. \$36.50.

**Proceedings of the Third Tihany Symposium on Radiation Chemistry.** Janos Dobó and Peter Hedvig, Eds. Akademiai Kiado, Budapest, 1972. 2 vols. viii, 1458 pp., illus. \$48.30.

**Prostaglandins II.** Clinical Aspects. MSS Information Corporation, New York, 1973. 162 pp., illus. \$15.

**Residue Reviews.** Residues of Pesticides and Other Contaminants in the Total Environment. Vol. 45. Francis A. Gunther and Jane Davies Gunther, Eds. Springer-Verlag, New York, 1973. viii, 186 pp., illus. \$16.20.

**Solid State Theory in Metallurgy.** Peter Wilkes. Cambridge University Press, New York, 1973. xii, 454 pp., illus. Cloth, \$27.50; paper \$8.95.

**Statistical Thinking.** A Structural Approach. John L. Phillips, Jr. Freeman, San Francisco, 1973. xviii, 124 pp., illus. Cloth, \$5.95; paper, \$2.50.

**Vascular and Neurological Changes in Early Diabetes.** Proceedings of a symposium, Curacao, N.A., Dec. 1971. Rafael A. Camerini-Dávalos and Harold S. Cole, Eds. Academic Press, New York, 1973. xxiv, 596 pp., illus. \$32.50. Advances in Metabolic Disorders, Supplement 2.

**Viral and Mycoplasmal Infections of the Respiratory Tract.** Vernon Knight, Ed. Lea and Febiger, Philadelphia, 1973. xii, 250 pp., illus. \$12.50.