

phatic and aromatic) and several minor categories. For the aliphatic olefins, the minor categories include straight-chain olefins, nonconjugated diolefins, and branched, alicyclic, conjugated, and bicyclic olefins and their derivatives. For the aromatic monomers, the minor categories include styrenes, indenenes, and miscellaneous olefins. For each type the literature survey contains a review of the conditions used for the polymerization reaction, the types of products obtained if known, kinetic data if available, and the possible utility of the polymerization reaction and its products.

Of all of the monomers surveyed in this book, only isobutene is polymerized cationically today in industry on a large scale, and Kennedy is regarded as one of the pioneers in this field. Naturally, the behavior of this monomer is covered in greatest detail, approximately 50 pages being devoted to the academic and industrial research related to butyl rubber. Almost 30 pages are devoted to styrene, ten to butadiene, and from three pages to one paragraph to each of the other olefins. The book is a valuable and up-to-date survey, informed throughout by the insight of an author who has made major contributions to the field.

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## Relativistic Stars

**Neutron Stars, Black Holes and Binary X-Ray Sources.** Papers from an AAAS symposium, San Francisco, Feb. 1974. HERBERT GURSKY and REMO RUFFINI, Eds. Reidel, Boston, 1975. xii, 444 pp., illus. Cloth, \$54; paper, \$38. Astrophysics and Space Science Library, vol. 48.

This volume is principally a collection of review papers that grew out of a set of lectures given at the 1974 AAAS meeting. The authors have substantially expanded their contributions in them for publication, and the level of a number of the articles is such that the volume forms a reasonably complete and timely review of theories and observations of relativistic stars. In addition, the editors have appended a well-chosen group of reprints of some classic papers in which the existence of neutron stars and of unending gravitational collapse was predicted 30 years ago and some more recent papers that are relevant to the observation of these bodies.

Groth's review of observations of pulsars is particularly comprehensive. All the known phenomena (as of mid-1974) are at

least briefly described, and complete references are given. Kraft's review of the evolution of binary star systems and its relevance to x-ray sources is quite enlightening; he focuses clearly on the essential question of how a "young" normal star can coexist with a collapsed, old, yet lower-mass companion. The review of galactic x-ray sources by Gursky and Schreier is also useful, although here the rapid advance of satellite observations has made the details a little more dated than those in Groth's paper. The theoretical reviews of supernovae by Colgate and of collapsed star physics by Ruffini are more idiosyncratic; they provide good guides to the particular lines of research in which the authors have participated but are less useful as complete reviews of their fields. All the review papers are useful compendiums of information and references; none is deeply critical. On the whole, this is a useful volume for specialists in this rapidly advancing field, but it is not well suited to newcomers or for teaching, except in very advanced courses.

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## Books Received

**Advances in Carbohydrate Chemistry and Biochemistry.** Vol. 31. R. Stuart Tipson and Derek Horton, Eds. Academic Press, New York, 1975. xii, 416 pp., illus. \$38.50.

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**Advances in Electronics and Electron Physics.** Vol. 38. L. Marton and Claire Marton, Eds. Academic Press, New York, 1975. xii, 282 pp., illus. \$29.50.

**Advances in Neurochemistry.** Vol. 1. B. W. Agranoff and M. H. Aprison, Eds. Plenum, New York, 1975. xiv, 310 pp., illus. \$24.50.

**Agricultural Development.** Soil, Food, People, Work. Charles E. Kellogg. Soil Science Society of America, Madison, Wis., 1975. xiv, 234 pp., illus. \$8.75.

**Alcohol Intoxication and Withdrawal.** Experimental Studies II. Proceedings of a symposium, Manchester, England, June 1974. Milton M. Gross, Ed. Plenum, New York, 1975. xii, 668 pp., illus. \$37.50. *Advances in Experimental Medicine and Biology*, vol. 59.

**An Algebraic Introduction to Mathematical Logic.** Donald W. Barnes and John M. Mack. Springer-Verlag, New York, 1975. x, 124 pp. \$10.80. *Graduate Texts in Mathematics* 22.

**The Alternate Services.** Their Role in Mental Health. A Field Study of Free Clinics, Runaway Houses, Counseling Centers, and the Like. Raymond M. Glasscote, James B. Raybin, Clifford B. Reifer, and Andrew W. Kane in collaboration with Harvey W. Feldman and Steven Spivack. The Joint Information Service of the American Psychiatric Association and the National Association for Mental Health, Washington, D.C., 1975. xx, 330 pp. \$8.

**An American Bestiary.** Jack Schaefer. Illus-

trated by Linda K. Powell. Houghton Mifflin, Boston, 1975. xxx, 288 pp. \$10.

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**Another Voice.** Feminist Perspectives on Social Life and Social Science. Marcia Millman and Rosabeth Moss Kanter, Eds. Anchor (Doubleday), Garden City, N.Y., 1975. xviii, 382 pp. Paper, \$3.50.

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**Benchmarking.** Computer Evaluation and  
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