time and length scales for mass transport in lakes as a prelude to a general development of simple box models. These concepts are used to good advantage to describe the behavior of hydrophobic organic pollutants in several Swiss lakes. Morgan and Stone summarize a large quantity of chemical kinetics succinctly and relate theory to a practical understanding of reaction dynamics in aquatic systems. In between these two chapters, which emphasize fundamental concepts, are 15 chapters on topics ranging from the chemistry of bogs to the use of carbon isotopes to measure paleoproductivity. More than a third of the chapters treat some aspect of trace-metal aqueous geochemistry; topics range from strategies of microorganisms to resist metal toxicity to the importance of sorption and particle settling in removal of trace metals from lakes. Several chapters deal with important topics of lake pollution: eutrophication, acidification, and heavy metal and organic pollution. In each case, the chapter takes a fresh approach and focuses on understanding the chemical processes involved by means of compartment models.

This is an important and well-written book, and the editor has done a fine job of assembling a group of interesting topics and capable authors. The book is packaged nicely, and I found few typographical errors. It should be in the library of all who are interested in the chemistry of lakes.

PATRICK L. BREZONIK
Department of Civil and Mineral Engineering, University of Minnesota, Minneapolis 55455

Some Other Books of Interest

Ecology of Mosquitoes. Proceedings of a Workshop (Welaka, FL, Jan. 1984). L. P. LOUNIBOS, J. R. REY, and J. H. FRANK, Eds. Florida Medical Entomology Laboratory, Vero Beach, 1985. xxii, 579 pp., illus. $15.

The editors of this proceedings volume begin their preface by commenting that since the publication of M. W. Service's *Mosquito Ecology* in 1976 medical and applied entomologists concerned with mosquitoes have come to utilize ideas and methods from basic ecology and basic ecologists have come to recognize mosquitoes as fruitful subjects for research. They present this volume as providing an overview of current research interests in the field. The volume consists of 35 papers by 43 authors, about a third of them from outside North America. The papers, which include general considerations of such issues as host selection and life history genetics as well as reports of individual research projects, are arranged under the headings Communities and Interactions, Population Dynamics, Forecasting and the Environment, Ecology and Epidemiology, Ecology and Genetics, and Strategies and Patterns, the last described by the editors as a catchall. Each group is followed by an edited transcript of the discussion that occurred at the workshop from which the volume derives. The volume has taxonomic and subject indexes and a combined reference list containing over 700 entries.
—K.L.

Search for the Universal Ancestors. H. HARTMAN, J. G. LAWLESS, and P. MORRISON, Eds. National Aeronautics and Space Administration, Washington, DC, 1985 (available from Superintendent of Documents, Washington, DC). xvi, 129 pp., illus. Paper, $3.75. NASA SP-477.

In 1983 a group of authors identifying themselves as the Pre-Cambrian Paleobiology Research Group produced a 570-page compendium (*Earth's Earliest Biosphere*, J. W. Schopf, Ed.; Princeton University Press) addressing in detail the biogeochemical evidence bearing on the origins and early evolution of life. Now a (somewhat overlapping) group of 27 scientists concerned from various points of view with the origins of life have produced a brief discussion of the subject at a level suitable for a general audience. The volume opens with a "prologue" by Philip Morrison. In four ensuing chapters the authors collectively discuss the nature of life, give a history of the search for its origins, describe the paleontological and biochemical evidence bearing on the question, outline the relevant aspects of earth and solar system history, and discuss evidence that has been or could be obtained in the laboratory. A final chapter, "Recommendations," identifies some questions in need of further investigation and proposes some organizational steps to facilitate the effort, including establishment of a fellowship program to attract young researchers to the field and a series of occasional awards to encourage efforts at synthesis and evaluation such as the one that gave rise to the 1983 volume.—K.L.

Sixth International Conference on Collective Phenomena. Reports from the Moscow Refusnik Seminar. INGA FISCHER-HJALMARS and JOEL L. LEBOWITZ, Eds. New York Academy of Sciences, New York, 1985. xx, 411 pp., illus. Cloth or paper, $94. Annals of the New York Academy of Sciences, vol. 452. From symposia, Stockholm, Dec. 1983, and Tel Aviv, May 1984.

The collective phenomena to which the majority of papers in this volume are devoted are not, as the subtitle might suggest, social or political but physical and biological. As is explained in preliminary papers by the editors, the series of conferences the volume represents had its origins in the Sunday seminars held in Moscow by Soviet Jewish scientists who had been deprived of ordinary professional contacts. Several of the planned conferences in the series were not permitted to take place. The set that is designated the sixth was held with the support of various Western organizations and individuals and included papers by both Western and refusnik scientists, though the contributions of many of the latter had to be presented in absentia. Of the principal papers in the volume the first three, all by D. I. Golenko, deal with optimization in scheduling theory. There follow 28 other technical papers, mostly in various fields of physical science, concerning for example solar wind–magnetosphere interactions, adhesive friction of elastomers, and diffeomorphisms in the physics of particles, gravity, and fluids. The volume concludes with 13 poster papers, about half of them on biological subjects, and an index of the 62 contributors.—K.L.

Books Received

Acoustical Imaging. Vol. 14. A. J. Berkhout, J. Ridder, and L. F. van der Wal, Eds. Plenum, New York, 1985. xvi, 801 pp., illus. $110. From a symposium, The Hague, April 1985.

Adenosine Deaminase in Disorders of Purine Metabolism and in Immune Deficiency. George L. Tritsch, Ed. New York Academy of Sciences, New York, 1985. xii, 345 pp., illus. Paper, $80. Annals of the New York Academy of Sciences, vol. 451.

Adolescence. Margaret A. Lloyd. Harper and Row, New York, 1985. xvi, 445 pp., illus. $25.95.

Applications of Plasma Processes to VLSI Technology. Takuo Sugano and Hyo-Gun Kim, Eds. Wiley-Interscience, New York, 1985. xvi, 394 pp., illus. $44.95.

Arthritis and the Elderly. Roland W. Moskowitz and Marie R. Haug, Eds. Springer, New York, 1986. xii, 195 pp. $21.95.

Artificial Intelligence and Psychiatry. D. J. Hand. Cambridge University Press, New York, 1985. x, 266 pp., illus. $39.50.

Aspects of Symmetry. Selected Erice Lectures. Sidney Coleman. Cambridge University Press, New York, 1985. xiv, 402 pp., illus. $69.50.

Atherosclerosis. K. T. Lee, Ed. New York Academy of Sciences, New York, 1985. x, 327 pp., illus. Paper, $75. Annals of the New York Academy of Sciences, vol. 454. From a symposium, Saratoga Springs, NY, Aug. 1984.

The Atmosphere of Venus. Recent Findings. G. M. Keating, A. J. Kliore, and V. I. Moroz, Eds. Published for the Committee on Space Research by Pergamon, New York, 1985. vi, 201 pp., illus. Paper, $49.50. Advances in Space Research, vol. 5, no. 9. From a workshop, Graz, Austria, June 1984.

Behavioral Case Formulation. Ira Daniel Turkat, Ed. Plenum, New York, 1985. xvi, 321 pp. $35.

Beyond Busing. Inside the Challenge to Urban Segregation. Paul R. Dimond. University of Michigan Press, Ann Arbor, 1985. xii, 411 pp. $29.95.

Beyond the Helix. DNA and the Quest for Longevity. Carol Kahn. Times Books, New York, 1985. xii, 285 pp. $17.95.

Briefbook. Biotechnology and Genetic Diversity. Steven C. Witt. California Agricultural Lands Project, San Francisco, 1985. 145 pp., illus. Spiral bound, $12.50.

The Bunker Climate Atlas of the North At-