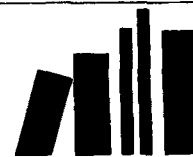


New Books

L.A. Witting and J.F. Gerecht, Book Review Editors



A Dictionary of Thermodynamics, A.M. James (Halsted Press, New York, NY, 1976, 259 p., \$14.95).

This book is an alphabetical compilation of basic important concepts of thermodynamics. Any given topic of thermodynamics such as: adiabatic process, fundamental thermodynamic equations, partial molar volume, work, zeroth law of thermodynamics, is readily located in the alphabetical sequence of subject entries. Thus the book offers quick access to basic concepts, equations, and experimental methods of determination of thermodynamics without the need to wade through the details presented in a standard textbook.

Although equations are quoted without derivations, their applications and limits are discussed in sufficient detail to be useful as quick references for many practicing scientists who have had a rigorous course in thermodynamics. The concise, clear statements presented on the various topics serve to remind one of the basic concepts, equations, formulas, and their applications.

In addition, the book contains useful tabulated thermodynamic data and references to texts for more detailed treatment of the subject.

Researchers in biology, biochemistry, chemistry, the medical profession, geology, microbiology, pharmacology, physiology, and physics may find this a useful reference book to own.

MARTHA GREENBLATT
Rutgers University
New Brunswick, NJ

Modification of Lipid Metabolism, Edited by Edward G. Perkins and Lloyd A. Witting (Academic Press, Inc., New York, NY, 1975, 254 p., \$13.50).

This interesting book on lipids covers research in areas which are not frequently reviewed. In 254 pages, the topics covered are: "Recent Developments in Lipid Biosynthetic Pathways," "The Effect of Dietary Rapeseed Oil on Cardiac Tissue," "Inborn Errors of Lipid Metabolism and Lysosomal Storage Disorders," "Intervention in Sphingolipid Metabolism and Synthetic Inhibitors," "Modification of Membrane Glycolipids by Oncogenic Agents," "Dietary Regulation of Lipid Metabolism, Effect of (-)-Hydroxycitrate," "Early Nutritional Influences on Development," "The Influence of Environmental Factors on Lipid Metabolism," and "The Effect of Temperature Changes on Lipids and Proteins of Biological Membranes."

Chapter I, by Dr. Witting, on "Recent Developments in Lipid Biosynthesis" sets the stage for the rest of the book. It is a good review of recent developments in the composition, structure, metabolism, and functions of lipids which are discussed from a biochemical point of view without stressing the possible relationship of lipids to the atherosclerotic process, as is usually done. The discussion on vitamin E in this chapter seems out of place, however.

The subsequent chapters on nutritional problems related to overconsumption are particularly well done. In these chapters, Romsos and Leveille have reviewed their studies on the effect of diet on the control of lipid metabolism in three animal species. Sullivan has logically developed the rationale for the use of metabolic inhibitor [(-)-hydroxycitrate] to reduce lipid storage, and Greenwood has

presented material on the effect of nutrition on adipose cell number which may be an indication of future obesity in the adult. The chapter by Beare-Rogers on the effect of dietary rapeseed oil on cardiac tissue, while interesting and timely, seemed to be out of place as Chapter II and perhaps should have been put later in this book.

All in all, this is a book that should be of interest to all investigators in lipid metabolism. The subjects covered will certainly help to clarify the mechanisms by which lipids perform in metabolic processes and in disease conditions other than atherosclerosis and coronary heart disease.

ROSLYN B. ALFIN-SLATER
University of California
Los Angeles, CA

Order in Polymer Solutions, Edited by Karel Solc (Gordon and Breach, New York, NY, 1976, 320 p., \$19.50).

This volume is the second in a continuing series which is based on a symposium held at the Midland Macromolecular Institute. The book is composed of thirteen papers which were presented at the symposium on "Order in Polymer Solutions" which was held on Aug. 20-24, 1973. The papers are about evenly divided between biopolymers and synthetic polymers. All of the papers are well written and the discussion following the presentation of the paper is also included. As the editor points out, the papers were reviewed and this has contributed to the three years it has taken to put the book together.

The major types of ordering covered were helix formation, solvation, preferential interactions, and association phenomena in both biopolymers and synthetic polymers. Thus, one is exposed to a number of different modes of ordering.

Interestingly, another symposium on ordering in polymer solutions entitled "Organized Structures in Polymer Solutions and Gels" was held in August of 1973. The twenty-three papers in this symposium deal primarily with synthetic polymers. The proceedings were published in 1973 (Polymer Symposia, No. 44, John Wiley and Sons, New York) but the discussion following the presentation of each paper is not included.

Some of the information in the book can be found elsewhere. For example, some of the material in the long paper (80 pages) by Hopfinger on "Solvation Properties of Biopolymers" was presented in his book, *Conformational Properties of Macromolecules* (Academic Press, Inc., New York, 1973). The paper by Elias on "Association of Synthetic Polymers" is also partially presented in his paper in *Light Scattering From Polymer Solutions* (ed. M.B. Huglin Academic Press, New York, 1972) entitled, "The Study of Association and Aggregation Via Light Scattering."

The book is excellent for those working in the area of solution properties of synthetic or biopolymers. Although the book has taken some time to appear, the material is currently applicable. In addition, since there are a number of topics represented and a total of about 600 references are given, an investigator could use the work as a reference book.

For those interested in other forms of ordering in solution such as micellization or lipid bilayer formation, most
(Continued on page 602A)

Committee Spotlights



Membership Committee

This administrative committee is charged with the review and approval of all membership applications (active, associate, corporate, student, and emeritus) and with the maintenance and extension of memberships.

Recently the committee, chaired by the vice-president of the Society each year, was reorganized with an executive chairman, T.H. Smouse, responsible for Emeritus, Honorary, and Retired Member activities and four subcommittees as follows:

1. Educational Staff and Students: P.A. Wells (Ch.), J.G. Endres, S.L. Melton, and R.A. Reck.
2. Corporate Membership: J.A. Fioriti (Ch.), S. Dominik, and S. Smith.
3. Individual Associates, A. Herrick (Ch.), R.H. Grinstead, and R.B. Muller.
4. Active Members: V.C. Witte (Ch.), H.P. Dupuy, T.A. Foglia, and A.E. Waltking.

Current projects include a survey to evaluate educational personnel interests and needs, development of leads to corporation decision-makers, approaches to individuals considering associate membership, and a new application form to provide more pertinent information from new active members.

Recent activities of note that have been very successful in membership promotion and involvement are the President's Club and Reception, the New Members' Breakfast, and the automatic payment of one year's dues for nonmembers attending National Meetings. The World Conference programs also have been very helpful in gaining new international members.

For the future the committee is looking to expanded growth of its membership. Also, a Five-Year Plan is being studied together with the ideas of expanding AOCS membership by involving people in disciplines that are now only marginally related to our principal interest areas.

Thomas H. Applewhite
Vice-President and Chairman 1976-77

Monograph Committee

The Monograph Committee has responsibility to initiate and maintain the program of quality monograph publication in areas of interest to the membership of the AOCS. During the Annual Meeting in New York, T.H. Smouse was named chairman to succeed E.G. Perkins. Other committee members are L.A. Witting, R. Wood, R.T. Holman, N. Sonntag, and W. Tallent.

"Polyunsaturated Fatty Acids," edited by Wolf-H. Kunau and Ralph T. Holman is now available from AOCS, 508 S. Sixth St., Champaign, IL 61820 for \$15 a copy to members and students, \$25 to nonmembers.

The committee also has approved publication of two additional monographs:

- H.J. Dutton is compiling a monograph on the "trans acids," and
- Dr. E. Pryde has begun collecting chapters for a monograph on fatty acid chemistry.

The committee will continue to solicit potential monographs for committee consideration.

Services problems are becoming apparent. Assuming the

editorship is a considerable responsibility; the number of members who are willing to do this are difficult to find. The realization must come that the Society must institute some type of incentive system to induce competent editor/authors to produce monographs if the program is to remain viable.

Ed Perkins
Monograph Committee

Call for nominations

Alton E. Bailey Award

The North Central Section of AOCS is requesting written nominations from Society members for the 1977-78 Alton E. Bailey Award. The purpose of the Bailey Award is to recognize research and/or service in the field of fats and oils. The nomination should contain at least five pertinent references or contributions in the field of oils, fats, waxes, etc. Some of the past Bailey Award winners are: V.C. Mehlenbacher (1959), R.H. Potts (1960), J.C. Cowan (1961), A.R. Baldwin (1963), T.P. Hilditch (1965), D. Swern (1966), W.O. Lundberg (1967), H.J. Dutton (1968), H.S. Olcott (1969), H.E. Carter (1970), J.F. Mead (1971), R.T. Holman (1972), C.M. Gooding (1973), S.S. Chang (1974), W.M. Cochran (1975), Raymond Reiser (1976), Leo Goldblatt (1977).

Please send nominations to the Alton E. Bailey Award Chairman, Robert L. Husch, Interstate Foods Corp. 3800 S. Morgan, Chicago, IL 60609. The deadline for nominations is December 15, 1977, and notification of the selection will appear in this *Journal*. The presentation of the Bailey Award is scheduled for February 1978.

Deadline: December 15, 1977

• New Books (Continued from page 600A)

of the subject matter in the book is not directly applicable. However, the treatment of the data for the associating systems studied in the book can be applied to other types of ordering in solution.

JOHN F. CASELLA
Ethicon, Inc.
Somerville, NJ