

ment of new methodologies, most notably thin layer chromatography, has since radically transformed the field into that of fast-moving and complex activities. Since the subject is inevitably interdisciplinary, involving clinical neurology, genetics, morphology, chemistry, and enzymology, those who are not active in the field and who are more or less confined within the traditional boundaries of their own disciplines often find it difficult to follow the progress. This book represents an attempt to put the diverse information together in a single volume of a reasonable size. The book begins with a historical review of the gangliosidoses followed by chapters on clinical and analytical chemical aspects, enzymology, morphology, epidemiology (genetics), cell culture studies, and animal models. In addition, an appendix provides a compilation of methodologies involved. They include chemical analyses, enzyme assays, morphology, and cell cultures. The authors of all of the chapters are from the same local group of investigators who have been working together for many years.

In this reviewer's judgment, the editors have achieved with considerable success the stated aim of the book: "...there seems to be a need for work by clinicians, biochemists, pathologists and geneticists of a more elaborate composite background for the better understanding of these disorders. ... There are few places where, between the covers of a single volume, an integrated concept of the gangliosidoses has been attempted, to include various avenues of approach to correlate this relatively new information." Each chapter covers its own territory reasonably well with an ample list of references. By reading through the book, the reader can expect to obtain the perspective view of the field. Those who are familiar with some aspects of the subject but not with others can select chapters of interest to them. The strength of the book lies in its practical usefulness; the references are for the most part extensive, and the list of methodologies is a nice addition. Readers of this journal who are primarily chemists and would like to learn what is going on in this borderline area will find this book useful.

There are some factual errors which need to be corrected if the book is revised in the future. The most serious is the apparent confusion of the juvenile  $G_{M2}$ -gangliosidosis and the AB variant. Since this problem arises consistently throughout the book, the investigators in this group appear to share this confusion—a disadvantage of this arrangement. The juvenile  $G_{M2}$ -gangliosidosis is clinically and analytically a milder form of the classical Tay-Sachs disease. Enzymatically the disease shows partial deficiency of hexosaminidase A. In contrast, the AB variant occurs in infantile and late infantile groups, is as severe as the classical Tay-Sachs disease both clinically and analytically, and shows completely normal hexosaminidase patterns when assayed with artificial substrates. Since additional cases of the AB variant are beginning to appear in the literature, this error creates unnecessary confusion among readers. Also, the chapter on morphology lumps together two clinically, morphologically, and analytically different cases as  $G_{M3}$ -gangliosidosis. More critical review would be desirable. An example of less serious but similarly confusing errors is found in the ganglioside structures on page 33. Here, the structures for  $G_{D1a}$  and  $G_{D1b}$  are reversed, and the same structure is given for both  $G_{T1}$  and  $G_{Q1}$ .

The book is a handy reference to have for overview of this complicated field. It is a good source for practical information and references.

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*Solvent Effects on Chemical Phenomena*, Vol. 1, Edward Amis and James Hinton (Academic Press Inc., New York, NY, 1973, x + 474 p., \$36.00).

This first volume presents a general and wide ranging review of the influence of solvation effects on chemical phenomena. After a general introduction which includes a discussion of various types of solvation, there is an extensive chapter describing various methods of measuring solvent effects in chemical systems. The methods treated include measurement of solvation number by compressibility and dielectric techniques. There is a short but cogent chapter on structural aspects of mixed aqueous solvent systems.

The last half of the book is completely devoted to the influence of solvent on organic reaction rates and mechanisms, particularly those of substitution reactions. Specifically, there is a detailed treatment of electrostatic effects and a comparison of dipolar aprotic solvents with protic solvents. Also treated are effects of pressure, viscosity, hydrogen bonding, and nucleophilicity on reaction rates.

The primary use of this volume will most certainly be for general reading in the area by advanced graduate students and those active in this field. The book is readable, generally well composed and free of errors. It is well referenced and has an extensive author index. The general index, however, is rather brief.

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## CALL FOR PAPERS

### 50th ANNUAL FALL MEETING

The Technical Program Committee has issued a call for papers to be presented at the AOCS Fall Meeting from September 26 thru 29, 1976, at the Regency Hyatt Hotel in Chicago, Illinois. Papers on every aspect of lipids, oils and fats, and related areas are welcome. Please submit three copies of a 100-300 word abstract with *Title, Authors, and Speaker*. Please also indicate whether you wish to make the presentation in the regular manner or in a poster session. The abstracts are to be sent to: R.G. Krishnamurthy, Kraftco Corporation, 801 Waukegan Rd., Glenview, IL 60025. ■

## DEADLINE:

## MAY 6, 1976