

**Atomic Energy Levels** [*J. Am. Chem. Soc.* **1982**, *104*, 4506]. LIBERO J. BARTOLOTTI.

Page 4506: The authors of the book should read—S. Fraga and K. M. S. Saxena (University of Alberta) and J. Karwowski.

**Wavelength and Solvent Effects on Ionic Photodissociation of Charge-Transfer Complexes. The Hexamethyl(Dewar benzene) System** [*J. Am. Chem. Soc.* **1981**, *103*, 4630]. GUILFORD JONES II\* and WILLIAM G. BECKER.

Page 4631: Several entries in Table I reporting quantum efficiencies for photoisomerization of CT complexes of hexamethyl(Dewar benzene) are incorrect. Column four (under 436)

should be 0.94 and 0.34; column five (under 405) should be 3.2 and 1.2.

**Role of Solvent in the Mechanism of Amine Oxide Thermolysis Elucidated by the Temperature Dependence of a Kinetic Isotope Effect** [*J. Am. Chem. Soc.* **1981**, *103*, 4650–4652]. HAROLD KWART\* and MARTIN BRECHBIEL.

Page 4652: The following should be included after the last sentence in column 2.

**Acknowledgment.** This work was supported by the National Science Foundation under Grant CHE 7911110.

## Book Reviews

**Coordination Chemistry Reviews. Volume 37. June 1981.** By A. B. P. Lever. Elsevier Scientific Publishing Company, Amsterdam. 1981. 339 pp. \$86.15.

This volume of Coordination Chemistry Reviews is a companion to Volume 35. The general purpose is to provide thorough coverage of the coordination chemistry of d-transition elements that appeared in the scientific literature during late 1978 and 1979. Organometallic chemistry, reaction mechanisms, and spectroscopic studies have not been included in this review as the topics are extensively reviewed elsewhere. Contained within this volume are reviews of the coordination chemistry of scandium, titanium, zirconium, hafnium, vanadium, niobium, tantalum, chromium, molybdenum, tungsten, manganese, technetium, rhenium, nickel, zinc, cadmium, and mercury. The reviews generally are arranged according to oxidation state and donor atom. The reviews generally are quite thorough, although the review article on technetium overlooked several important discoveries in Tc(V) chemistry that were published in 1979.

Harvy S. Trop, *Bell Laboratories*

**Advances in Infrared and Raman Spectroscopy. Volume 8.** Edited by R. J. H. Clark and R. E. Hester. Heyden & Son, Ltd., London. 1981. xv + 368. \$84.00.

This volume continues the tradition of excellence that we have come to expect from this review series. It is my own favorite review series, partly because these books are so attractively printed but also because I usually find the reviews to be interesting and written at a reasonable level for someone interested, but not expert, in a particular field. I believe that the real value of review books such as represented by this series, in addition to helping "vibrational molecular spectroscopists" keep up with new developments in their field, lies in the stimulation and training they provide for graduate students. It is thus with increasing despair that I note the rapidly rising cost of books in this series, making it prohibitively expensive for students (or practicing spectroscopists, or even libraries) to continue regular purchase of all volumes. When one has to watch one's budget very carefully even to purchase the books that are essential to keep abreast of one's own specialty, purchase of review books of this type, with their usual wide range of topics, becomes an expensive luxury.

This book contains an interesting set of reviews, ranging all the way from Raman and Infrared Spectroscopic Techniques for Remote Analysis of the Atmosphere (Chapter 1, 51 pp, by H. W. Schrötter) to Antisymmetric Light Scattering and Time Reversal (Chapter 6, 18 pp, by L. D. Barron and E. Nørby Svendsen). The former surveys briefly and generally a field that has long been of considerable interest, and has been reviewed earlier in more depth in the Springer "Topics in Applied Physics"; the latter is a mathematical treatment that is extremely difficult reading for an outsider and that I found to be the only review in this volume that is obviously written for an expert in the field.

In between these extremes, we find an extremely fine review of Spectroscopic Studies of Vibrational Energy Transfer (Chapter 2, 99 pp, by R. T. Bailey and F. R. Cruickshank). This highly physical review summarizes and extends through 1979 their earlier reviews of this subject for the Chemical Society (*Mol. Spectrosc.*, **2**, 262 (1974); *Gas Kinet. Energy Transfer*, **3**, 109 (1978); as well as, *Annu. Rep. Prog. Chem. Sect. A*, **75**, 49 (1978)). It is a very good summary of this interesting and fast-developing field, with many new results, and is an excellent place for graduate students to begin learning about this subject.

The last three chapters are related to liquid crystals and optical rotation and form a sharp contrast to the more physical material in Chapter 2. The first is Vibrational Spectra of Liquid Crystals (Chapter 3, 75 pp, by Bernard J. Bulkin), introducing us to liquid crystals and organizing and summarizing results from Raman and infrared spectroscopic studies of assignments and structures of these complicated species. This chapter is a very useful introduction to the next one: A New Chiroptical Method: Infrared Rotatory Dispersion of Induced Cholesteric Solutions (Chapter 4, 37 pp, by Ernst-Heiner Korte and Bernhard Schrader). This surveys results, experimental techniques, and applications of this novel technique and should be of considerable interest to workers studying optical rotation in any form. The final chapter in this sequence on Infrared Circular Dichroism Spectroscopy (Chapter 5, 39 pp, by Stephen F. Mason) is an authoritative historical review of optical rotation in general and infrared circular dichroism (down to about 2000 cm<sup>-1</sup>) in particular. These three chapters form a nicely related group covering this general subject.

In summary, I find this volume to be as interesting (if wide-ranging) as usual and recommend it to those wanting an introduction to the subjects it covers.

Willis B. Person, *University of Florida*

**Amino Acid Analysis.** Edited by J. M. Rattenbury (Royal Hospital for Sick Children, Edinburgh). Ellis Horwood, Chichester, and John Wiley & Sons, New York. 1981. 380 pp. \$89.95.

The papers presented in this book came from a June 1979 symposium entitled Amino Acid Analysis in Clinical Chemistry and Medical Research under the sponsorship of the Department of Pediatric Biochemistry, Royal Hospital for Sick Children, Edinburgh, and the Department of Child Life and Health, University of Edinburgh. The emphasis is on the amino acid analysis of physiological fluids and tissues for biomedical applications.

The book is divided into four parts: Part One—Technical Developments in Amino Acid Analysis; Part Two—Amino Acid Analysis in the Study of Physiological Processes; Part Three—Amino Acid Analysis and the Investigation of Systemic Disease; and Part Four—Amino Acid Analysis in Congenital Disorders.

Part One covers fluorimetry, gas chromatography, high-pressure liquid chromatography, and mass spectrometry analysis of amino acids and peptides. Unfortunately, several of these procedures have been in use for some years, so what is said here is not new, while other methods are developing so rapidly that the best techniques are found not in books, but in more recent journal articles. Two contributions, one by R. P. Ambler on Standards and Accuracy in Amino Acid Analysis and the other by A. P. Williams on Collaborative Trial and Amino Acid Analysis, are worthwhile reading for anyone responsible for maintaining high accuracy and precision in the data output of a modern amino acid analysis facility.

Part Two illustrates the results of amino acid analysis as applied to physiological studies in the areas of digestion, nutrition, growth, starvation, injury, and neurobiology. Part Three is concerned with chronic renal failure, acute liver failure, alcoholism, and parenteral nutrition of the newborn. Part Four surveys the use of amino acid analysis in congenital metabolic errors. These latter sections may not be of interest to most analytical chemists, yet they do provide interesting background reading.

The book contains a variety of methods for the analysis of many unusual amino acids that arise due to protein catabolism, but for those