

yielding two products (**1c** and **1d**). These derivatives give a positive ninhydrin reaction and with cinnamaldehyde/HCl, blue products. On hydrolysis **1c** and **1d** yield, among the known amino acids, lanthionine and *S*-(β -aminoethyl)cysteine (thialysine), respectively, as identified by TLC.

On standing in a methanolic solution of NaOCH₃ (8-fold excess) at room temperature for 5–10 h **2a** is converted into **2b** and several minor products. The addition of methoxide to the α -carbon atom of Aa-3 is proved unambiguously by H NMR spectrometry: while almost all proton signals of **2b** coincide with those of **2a** (Table I), the singlets from the β -protons of Aa-3 at 4.80 and 5.12 ppm (olefinic protons) are missing. Instead, two new methyl singlets appear at 1.47 (CCH₃) and 3.16 (OCH₃).

Three-dimensional models of the suggested structure **2** can be

built without strain. They exhibit negative helicity of the thioether moiety in accordance with the negative Cotton effects in CD spectra as shown in Figure 1.⁹

Acknowledgment. We are indebted to Prof. W. König, Universität Hamburg, for the FAB mass spectra and to Prof. J. Dabrowski, Abteilung Organische Chemie of this institute, for providing high-resolution NMR data of phalloidin. The study was supported by the Deutsche Forschungsgemeinschaft.

(9) Compound **2a**, accordingly, is cyclic(L-alanyl-D-threonyldehydroalanyl-*cis*-4-hydroxy-L-propyl-L-alanyl-2-mercapto-L-tryptophyl-4-hydroxy-5-mercapto-L-leucyl) cyclic(6–7)-sulfide. The name of **2b** is cyclic(L-alanyl-D-threonyl-2-methoxyalanyl-*cis*-4-hydroxy-L-propyl-L-alanyl-2-mercapto-L-tryptophyl-4-hydroxy-5-mercapto-L-leucyl) cyclic(6–7)-sulfide.

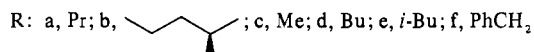
Additions and Corrections

Elimination Reactions of *N*-(2-*p*-Nitrophenyl)ethyl)alkylammonium Ions by an E1cB Mechanism [*J. Am. Chem. Soc.* 1983, 105, 265–279]. JAMES R. KEEFFE* and WILLIAM P. JENCKS

Page 275, Table VII: The value of $10^3 k_{\text{OH}^-}$ for 1,2-dibromo-1-(*p*-nitrophenyl)ethane should be $385 \text{ M}^{-1} \text{ s}^{-1}$.

Boronic Ester Homologation with 99% Chiral Selectivity and Its Use in Syntheses of the Insect Pheromones (3*S*,4*S*)-4-Methyl-3-heptanol and *exo*-Brevicommin [*J. Am. Chem. Soc.* 1983, 105, 2077–2078]. DONALD S. MATTESON* and KIZHAKETHIL M. SADHU

Page 2077: To identify the compounds, Scheme I should have the following legend:



R': a, Me; b, Et

Double Isotope Fractionation: Test for Concertedness and for Transition State Dominance [*J. Am. Chem. Soc.* 1983, 105, 2475].

JOEL G. BELASCO, W. JOHN ALBERY, and JEREMY R. KNOWLES*

Page 2476, eq 1 should read:

$$\xi = \frac{(\phi'_{1,2})_{\text{H}''}}{(\phi'_{1,2})_{\text{D}''}} - 1 = \frac{(\phi''_1 - \phi''_2)(\phi'_1 - \phi'_2)}{(\kappa^{-1}\phi''_2 + \phi''_1)(\phi'_2 + \kappa\phi'_1)}$$

Detection of Free Radicals from Low-Temperature Ozone–Olefin Reactions by ESR Spin Trapping: Evidence That the Radical Precursor Is a Trioxide [*J. Am. Chem. Soc.* 1983, 105, 2883].

WILLIAM A. PRYOR,* DONALD G. PRIER, and DANIEL F. CHURCH

Page 2888: Footnote 29a omitted the numerical value for the heat of homolysis. The second line of this footnote should read: ...split to give ROO· and HO· by 10 kcal/mol....

Book Reviews*

The Theory of Vibrational Spectroscopy and its Application to Polymeric Materials. By Paul C. Painter and Michael M. Coleman (Pennsylvania State University) and Jack L. Koenig (Case Western Reserve University). John Wiley & Sons, New York. 1982. XVII + 530 pp. \$60.00.

This book is both unusually honest in its definition of scope and clear in its presentation of material. It sets out to do nothing more or less than provide the reader with a concise, systematic exposition of the application of elementary vibrational spectroscopy theory to the determination of polymer structures. As the authors point out in their Preface and Chapter 1, several classic monographs are available which treat the fundamentals of nuclear vibrations in "ordinary" (monomeric) molecules. But, in spite of the extensive series of research articles and review papers by Krimm, Schachtschneider, Snyder, Zerbi, and others, there is as yet no single book where the infrared spectroscopy of polymers is treated "from beginning to end". Painter, Coleman, and Koenig do so in the present text with a commendable degree of modesty, simplicity and thoroughness.

Chapters 1 through 9 present the standard theory of: internal vs. symmetry coordinates; group theory techniques; molecular force field representations; computer methods for solving secular equations; and infrared and Raman intensities. While all of these topics are discussed in many already-published texts, their present exposition is especially

well-written and provides a self-contained introduction to the rest of the book. In Chapters 10 through 12 the reader is treated to a brief but comprehensive discussion of lattice dynamics and symmetry analysis of infinite (extended) systems, topics which are usually only found scattered throughout solid state physics monographs. Then, in Chapters 13 through 15, the authors "get down to business" and outline in detail the vibrational analysis of polymer crystals (mostly polyethylene) taking into account the following successively: intrachain force fields, interchain interactions, defects, chain-end effects, and local modes. Finally, no fewer than the last 150 pages of the book are devoted to exposing the nitty-gritty details of the infrared spectroscopy/molecular structure of important selected examples (polyolefins, haloethylenes, polydienes and alkenylenes, polymers containing aromatic rings, and polyamides, peptides, and proteins).

William M. Gelbart, *University of California, Los Angeles*

The Gamma Rays of the Radionuclides. By Gerhard Erdtmann and Werner Soyka (Nuclear Research Establishment Julich). Verlag Chemie, Weinheim. 1979. xv + 862 pp. \$160.00.

The subtitle of this volume, "Tables for Applied Gamma Ray Spectroscopy", implies the audience to which it is intended. The book, the seventh in the series "Topical Presentations in Nuclear Chemistry", is an expanded (by 50%) and up-dated version of tables issued in 1973

*Unsigned book reviews are by the Book Review Editor.