

Additions and Corrections

Micellar Control of Organic Reactions: Propellane Substrates as Stereochemical Probes for Micellar Binding [*J. Am. Chem. Soc.* **1987**, *109*, 7477–7483]. ANAND NATRAJAN, JOSEPH D. FERRARA, WILEY J. YOUNGS, and CHAIM N. SUKENIK*

Page 7479, Table I: The entry for the $n = 8$ *aa*-diol should list J_{S2} as 1.8 Hz, J_{S3} as 6.8 Hz, and J_{23} as 14.0 Hz. The entry for the $n = 20$ *aa*-diol should list H_2 (J_{S2}) as 2.02 (0) and H_3 (J_{S3})(J_{23}) as 1.90 (6.1) (14.5). The letters A and S as subscripts in the column headings should all be lower case (a, s) to correspond to the designations in the figures.

Isotopically Sensitive Branching and Its Effect on the Observed Intramolecular Isotope Effects in Cytochrome P-450 Catalyzed Reactions: A New Method for the Estimation of Intrinsic Isotope Effects [*J. Am. Chem. Soc.* **1986**, *108*, 7074–7078]. JEFFREY P. JONES, KENNETH R. KORZEKWA, ALLAN E. RETTIE, and WILLIAM F. TRAGER*

Page 7076: Equation 3 is wrong as written and should read as follows

$$(k_H/k_D)_{\text{obsd}} = d_3/d_2 - (d_2 + d_3)F_2$$

Due to this error the isotope effects in Table II on p 7077 should read 9.38 ± 0.91 and 11.77 ± 0.19 for the hydroxylation of the octane- $1,2\text{-}^2\text{H}_3$ substrate with microsomes and P-450b respectively and 3.43 ± 0.031 and 4.00 ± 0.018 for the respective octane- $1,2,3\text{-}^2\text{H}_7$ substrate. This error does not affect the conclusions of the paper.

The Separation of the Intramolecular Isotope Effect for the Cytochrome P-450 Catalyzed Hydroxylation of *n*-Octane into Its Primary and Secondary Components [*J. Am. Chem. Soc.* **1987**, *109*, 2171–2173]. JEFFREY P. JONES and WILLIAM F. TRAGER*

Page 2172: Due to an unrecognized error in eq 3 presented in a previous paper (Jones et al. *J. Am. Chem. Soc.* **1986**, *108*, 7074) the isotope effects reported in Tables I and II need correction.

Table I should now read:

Table I. The Observed Isotope Effects Associated with the Oxidation of Selective Deuteriated Octanes

| substrate | isotope effect | |
|--|----------------|--------|
| | microsomes | P-450b |
| (1,1,1- $^2\text{H}_3$)octane (d_3) | 9.38 | 11.77 |
| (1,1,8,8- $^2\text{H}_4$)octane (d_4) | 3.43 | 4.00 |
| (1,8- $^2\text{H}_2$)octane (d_2) | 14.50 | 16.21 |

Table II should now read:

Table II. The Separated Primary and Secondary Isotope Effects Associated with the Oxidation of Octane

| | microsomes | | P-450b | |
|-----------|------------|-----------|-----------|-----------|
| | d_3/d_4 | d_3/d_2 | d_3/d_4 | d_3/d_2 |
| primary | 7.61 | 7.90 | 9.10 | 9.18 |
| secondary | 1.11 | 1.09 | 1.14 | 1.13 |

While these changes do not significantly alter the conclusions reached in this paper the rule of the geometric mean now appears to hold, and indeed the departure that was observed was due to this unrecognized source of error.

Book Reviews*

Food Biotechnology. Edited by D. Knorr (University of Delaware). Marcel Dekker Inc.: New York and Basel. 1987. XIII + 613 pp. \$99.75. ISBN 0-8247-7578-3

The contents of this book arose from a symposium "Genetic Engineering in Food Production" presented at the Annual Meeting of the Institute of Food Technologists held in 1984. The book is organized into five sections with a number of individual chapters in each.

Part one deals with the relationship between biotechnology, food production, food processing, and the nutritional quality of foods. The four chapters each give a good introduction and illustrate some differences in approach, no doubt due to the authors being based in Canada, the Netherlands, German Democratic Republic, and USA. It is quite clear that even now there is no generally accepted definition of biotechnology. Dr. Knorr as editor favors the definition put forward by the European Federation of Biotechnology.

In the second part there are reviews on the methods and processes in biotechnology, including analytical methods, fermentation processes and process control, cell culture processes, and immobilisation methods. If biotechnology is to advance, advances in all these areas are essential. Seven chapters are included here. Five chapters are in part three which is concerned with the bioprocesses for the modification and conversion of raw material. The development of new plant varieties, the isolation of functional proteins from yeast, and molecular cloning of carbohydrases are fully discussed. Part four contains four chapters dealing with the production of food ingredients and processing aids, making use of biotechnology for this purpose. Corn sweeteners, lipids, and bacterial starter cultures as well as the special cold-adapted enzymes from fish are discussed.

In the final part there are only two chapters, dealing with the regu-

latory aspects and a social appraisal of biotechnology.

An interesting volume, each author or group of authors has approached the topic in their own way. Each chapter has a good list of modern references, and the reader can certainly dig deeper in the topic concerned. The editor is to be congratulated on producing such a readable book from forty authors in seven countries. This volume should be on the reading list for all graduate students concerned with the applications of chemistry, biochemistry, engineering, and microbiology to food production.

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Biogenesis of Aromas. Edited by Thomas H. Parlment and Rodney Croteau. American Chemical Society: Washington, D.C. 20036. 1986. 397 pp. \$74.95.

This book was developed from the ACS Symposium held in September 8–13, 1985, sponsored by the Division of Agricultural and Food Chemistry of the American Chemical Society at the 190th meeting. It is an excellent reference book in a very rapidly growing and interesting area covering all aspects of biogenesis of aromas. Also it could be used as a textbook but is quite expensive. The book consists of 29 chapters divided into 6 major sections—Prospectives, Analytical Methodology, Biosynthetic Pathways, Metabolism of Specific Compounds, Biogenesis of Selected Aromas, and the Summary.

The perspectives section gives a good insight into aroma and flavor from the consumer, legislative, and industry viewpoints and shows the interrelationships between all three.

The analytical section discusses most of the latest techniques used in flavor and aroma analysis like capillary GC, GC/MS, and headspace analysis. However, it neglects to discuss supercritical chromatography, which although it was in its infancy when the symposium was held could have been discussed here.

The section on biosynthetic pathways discusses the biosynthesis of

* Unsigned book reviews are by the Book Review Editor.