

Additions and Corrections

Pro-D-NMe-Amino Acid and D-Pro-NMe-Amino Acid: Simple, Efficient Reverse-Turn Constraints [*J. Am. Chem. Soc.* **1995**, *117*, 5927–5937]. DAVID K. CHALMERS AND GARLAND R. MARSHALL*

Page 5931: The definition of the virtual torsion angle β as shown in Figure 2 (C α 1, C α 2, C α 3 N4) does not match that of Ball *et al.* (refs 14 and 74: carbonyl carbon 1, C α 2, C α 3, N4). Using the corrected definition of β has little effect on Figure 5 and does not alter the conclusions of the paper. Figure 5B calculated using the corrected definition of β is given in the supporting information.

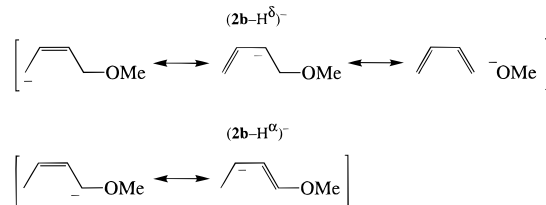
Figure 5B calculated using the corrected definition of β (1 page). This material is contained in many libraries on microfiche, immediately follows this article in the microfilm version of the journal, can be ordered from the ACS, and can be downloaded from the Internet; see any current masthead page for ordering information and Internet access instructions.

JA955039W

Gas-Phase Base-Induced 1,4-Eliminations: Occurrence of Single-, Double-, and Triple-Well E1cb Mechanisms [*J. Am. Chem. Soc.* **1995**, *117*, 9889–9899]. F. MATTHIAS BICKELHAUPT,* GODFRIED J. H. BUISMAN, LEO J. DE KONING, NICO M. M. NIBBERING,* AND EVERT JAN BAERENDS

Page 9892: The last number of the 1,2-*E* column of Table 2 should be 19.

Page 9895: The (2b-H α)⁻ ion structures in the bottom of Scheme 3 were erroneously portrayed as (2b-H δ)⁻. A corrected scheme is presented below.



Page 9898: [H₂O, (2b-H δ)⁻]_A should be [H₂O, (2b-H δ)⁻]_{syn}.
JA955037B

Sequence Dependent Hydration of DNA: Theoretical Results [*J. Am. Chem. Soc.* **1995**, *117*, 10161]. ADRIAN H. ELCOCK* AND J. ANDREW McCAMMON

Page 10161, Table 1: Several of the data in Table 1 have been corrected and a table with the corrected data is given below.

sequence	A	C	G	T
A_A	0.0	-2.0	-3.3	-0.9
A_C	0.0	-4.2	-2.1	-1.2
A_G	0.0	+1.2	-3.4	+0.5
A_T	0.0	+1.0	-3.9	+0.8
C_A	0.0	-4.2	-0.6	-1.7
C_C	0.0	-3.5	-0.7	-1.5
C_G	0.0	-6.2	+0.7	-2.2
C_T	0.0	-5.3	+1.0	-1.4
G_A	0.0	-0.9	-3.6	+0.1
G_C	0.0	-0.5	-4.2	+0.3
G_G	0.0	-2.9	-2.6	-0.3
G_T	0.0	-1.1	-1.0	-0.5
T_A	0.0	-2.9	-2.6	-0.1
T_C	0.0	-2.6	-2.2	-0.1

JA955036J

Book Reviews

Dictionary of Organic Compounds. Sixth Edition. Volumes 1–9. Edited by J. Buckingham and F. Macdonald (Chapman & Hall). Chapman and Hall: London. 1995. 9144 pp. \$5200.00. ISBN 0-412-54090-8.

Dictionary of Organic Compounds (DOC), a reference source known to generations of chemists as *Heilbron*, has reached its sixth printed edition, and with this milestone, a number of changes in scope have become evident. The Fifth Edition, which appeared in 1982, consisted of seven volumes and was updated by annual supplements. It was the first edition to be produced from the Chapman and Hall Chemical Database (CHCD), which has since spawned a number of similar "dictionaries" of other types of compounds (inorganics, natural products, drugs, organometallics, etc.). This increasing specialization has caused the editors to focus the Sixth Edition of the DOC more narrowly on core compounds of interest to mainstream organic chemists, particularly those doing synthesis.

Whereas the Fifth Edition contained entries on 90,000 compounds, a fair number of these were natural products and all but the most common of these have been excised from the Sixth Edition, as have most organometallics and drugs. The new edition contains over 160,000 compounds, which primarily represent fundamental starting materials, reagents, target molecules, chiral intermediates, and important organic substances that chemists are likely to encounter frequently.

Other than moving to a more compact three-column format, Sixth Edition entries look much the same as the previous edition's. They are arranged alphabetically by "DOC Name", which the editors define as the common name by which the compound is best known. A healthy selection of systematic and nonsystematic synonyms, including the Chemical Abstracts name(s), is included and fully indexed. Most derivatives and stereoisomers are included within the entry for the corresponding parent compound. Parent entries always contain the CAS Registry Number and a structural formula, with relevant stereochemical description. Molecular formula, molecular weight, and notes on uses and hazards are also included, though the latter are not as extensive or useful as those found in other reference sources. The amount of physical data provided is often a bit sparse but usually includes at least the melting and boiling points and density. Particularly useful are the literature references, which offer a shortcut to finding more detailed information on a substance without having to consult *Chemical Abstracts*. These references are usually annotated, indicating what kind of information may be found in the papers cited: synthesis, use, spectroscopy, reviews, etc. The literature has been covered through mid-1994, and recent papers are preferred to older ones. Unfortunately, DOC persists in not providing Beilstein citations for compounds, a feature that makes some competing products like CRC's *Handbook of Data on Organic Compounds* more attractive to knowledgeable users of the organic literature.

A reference tool like this is only as good as its indexes, and three of the nine volumes of the Sixth Edition are indexes. The Name Index includes all synonyms and entry names and provides an alphanumeric dictionary number. The Molecular Formula Index includes formulas for all entry compounds and derivatives; the entry name and number are then given. Lastly, there is a CAS Registry Number Index, a useful shortcut if one already has that number in hand.

Despite its substantial price, most scientific and chemical libraries will probably want to acquire the Sixth Edition, since it is an important and relatively easy-to-use resource for chemists and nonchemists alike. (The annual supplement volumes, which will appear beginning in 1996, are somewhat less useful, since many users will resist consulting them individually.) Compound selection is broader than that of most competing handbooks, although its coverage of the universe of organic substances is necessarily highly selective. More comprehensive

coverage can only be found in the Beilstein Handbook and the CAS Registry database, so DOC retains its place among the best and most popular "first-look" resources.

DOC is also available as a CD-ROM subscription. Although the electronic version allows structure and property searching, the price is somewhat higher and requires annual renewals. Finally, a separate companion volume entitled *The Organic Chemist's Desk Reference* is also recommended, as both a guide to using the Sixth Edition and a handy general reference tool for one's lab or office.

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JA955360E

Patty's Industrial Hygiene and Toxicology. Volume 3, Part B. Lewis J. Cralley, Lester V. Cralley, and James S. Bus (Dow Chemical Company). John Wiley: New York. 1995. x + 765 pp. \$195.00. ISBN 0-471-53065-4.

This third edition of *Patty's Industrial Hygiene and Toxicology* covers the Theory and Rationale of Industrial Hygiene Practice: Biological Responses. The 14 chapters of this volume cover a wide range of topics ranging from evaluation of toxicological data to specific biological consequences of exposure to various environmental toxicants. Each of the individual chapters provides specific information and examples which will be of value to readers trying to make an entry into this large field. For example, Chapter 2, dealing with evaluation of toxicological data, provides a basic overview of pharmacokinetics with a discussion on extrapolation of animal studies to setting exposure limits for humans. Chapter 3 provides several tables of summarized information on many well-studied chemical toxicants and their analysis in individuals exposed to those chemicals. Chapters 4–8 focus on specific biological responses underlying significant health risks including: reproductive toxicology, neurotoxicology, and carcinogenesis. All four of these chapters provide an excellent overview of the basic biological processes which provides a greater understanding of the consequences of toxic insult. They are written in a style which does not require extensive prior knowledge of the details of those biological processes. Chapter 9 provides an extensive review of the importance of considering biological rhythms in the workplace, particularly when evaluating the consequences of shift work on health of the workers. Chapter 10 dealing with applied ergonomics provides a large number of specific case studies demonstrating the importance of designing the workplace to match physiological and psychological needs of the worker. Although the topic of abnormal pressure discussed in Chapter 11 may represent a rare concern in the workplace, I found the discussion on the consequences of hyperbaric pressures on blood gasses extremely interesting. As well, the discussion of biological agents in Chapter 12 provides an excellent overview of good laboratory practice in workplaces using biological hazards and insight into the federal regulations governing use of those agents. The final two chapters on ionizing and nonionizing radiation energy and their consequences on the body contain much practical information and cover topics which are important in the contemporary workplace.

Overall, I found these discussions on the biological responses chemicals and other hazards in the workplace to be fundamentally sound and interesting. I think this book will be of value to readers wanting a first step to explore the complexity of these issues and as a guide to federal regulations governing the workplace and current literature on these topics.

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