

Additions and Corrections

Temperature Dependence of Fusion and Fragmentation Kinetics of Triton X-100 Micelles *J. Am. Chem. Soc.* **2000**, *122*, 6242–6251. YAHYA RHARBI, MEI LI, MITCHELL A. WINNIK,* AND KENNETH G. HAHN, JR.

Page 6248: The values of k_1 and k_2 in Table 3 are incorrect due to an error in the calculations of empty micelles. The correct values are given below. The activation energies reported and the other conclusions drawn are unaffected by these corrections.

Table 3. Effect of Temperature on the First- and Second-Order Rates for Exchange of the Probe 1 in Triton X-100 Micelles

$T, ^\circ\text{C}$	$10^{-6}k_2, \text{M}^{-1} \text{s}^{-1}$	k_1, s^{-1}
5.3	0.030 ± 0.001	1.02 ± 0.08
12.6	0.196 ± 0.006	3.24 ± 0.28
19.6	0.85 ± 0.02	7.8 ± 0.83
24.6	2.94 ± 0.12	10.0 ± 1.9

Supporting Information Available: Details of the concentration calculation (PDF). This material is available free of charge via the Internet at <http://pubs.acs.org>.

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Book Reviews

Molecular and Supramolecular Chemistry of Natural Products and Their Model Compounds. By Jürgen-Hinrich Fuhrhop (Free University of Berlin) and Claus Endisch (Berlin, Germany). Marcel Dekker: New York, 2000. x + 602 pp. \$195.00. ISBN 0-8247-8201-1

This book, written by some of the leading researchers in the field of supramolecular chemistry, describes properties of major classes of natural products from the perspective of their participation in supramolecular assemblies found both in biology and in model systems. The content of the book is divided into nine chapters, the first of which lays out the basic terms of structure and reactivity. The eight remaining parts are each devoted to a single class of natural products: lipids, steroids, carbohydrates, carotenes, porphyrins, vitamins, DNA, and proteins. The goal of each chapter is to emphasize class-defining, unique properties that dominate the structure and reactivity of these compounds and eventually lead to formation of functional supramolecular assemblies. Most chapters are organized to show in sequence (i) occurrence and structures of the major representatives in the class, (ii) isolation and synthetic methods, (iii) reactivity patterns, and (iv) formation of supramolecular aggregates. In each class of natural products, additional coverage of their unique properties is provided where needed, such as formation of monolayers and bilayers for lipids, conformational properties of ring systems for carbohydrates, energy conversion for porphyrins, and mechanisms of redox and other reactions for vitamins. These properties are discussed by using specific examples to illustrate them. In general, the choice of such examples is very interesting, the coverage detailed and well-balanced.

This book has a number of shortcomings, however. First, by the authors' own declaration, it is intended for advanced students of chemistry and biochemistry. In view of this mission statement, inclusion

of the first chapter, which discusses fundamental terms of chemical reactivity and structure, is unwarranted. The second major deficiency of the book is editorial. There are multiple typographical and factual errors throughout. Furthermore, the authors have coined a new term, "synkinesis", to describe the generation of noncovalent molecular assemblies. The advantage of using this new term, as compared to standard "molecular self-assembly", is not immediately apparent. The analogy between chemical synthesis and formation of molecular assemblies is rather weak. The first term describes formation of a covalent bond, whereas the second depicts formation of *stable* molecular complexes held together by weak noncovalent interactions. If "synkinesis" is meant to describe a reversible synthesis of weak, noncovalent bonds, then it should apply to any type of molecular interaction leading to the formation of molecular complexes, regardless of their long-term stability.

Despite the above deficiencies, the reviewer found this book to be very informative and interesting overall. It gives an up-to-date, valuable summary of the current understanding of structural and mechanistic aspects of natural products and their synthetic analogues. It should become an important reference for natural products because of its unique emphasis on aspects of their supramolecular chemistry, which is difficult to find elsewhere. This book should be especially useful to graduate students, faculty, and research scientists in the areas of natural product chemistry and bioorganic chemistry and should prove a valuable addition to personal and institutional libraries.

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