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BOOK REVIEW

Sulphur-Containing Drugs and Related Organic Compounds. Chemistry, Biochemistry, and Toxicology, Volume 2, Part B. Analytical, Biochemical, and Toxicological Aspects of Sulphur Xenobiochemistry. Edited by L.A. DAMANI. Halsted Press, John Wiley and Sons, 605 Third Avenue, New York, NY 10158. 1989. 175 pp. 17 × 24.5 cm. $74.95. ISBN 0470-21501-1.

This volume is part of a series in biochemical pharmacology. All volumes in the series, which currently consists of 6 books, are about sulfur-containing drugs and related organic compounds. Volume 2, Part B consists of 7 chapters, each of which is related in some manner to sulfur xenobiochemistry.

In Chapter 1, interactions of sulfur-containing compounds with cytochrome P-450's and UDP-glucuronyltransferases are considered. A number of reactions are catalogued, but a systematic comparison of them is lacking. Perhaps a more unified treatment would have resulted if the chapter were focused on compounds for which interaction of their sulfur functional group with the enzymes was known to be important. In addition, several typographical errors were found in this chapter. In Chapter 2, a brief review of the enzymatic mechanism of *S*-adenosylmethionine-dependent methyltransferase reactions is provided. An analysis of interactions of structural analogues of *S*-adenosylmethionine and *S*-adenosylhomocysteine with the methyltransferases also is given. Chapter 3 provides a concise review of the sulfane pool, including the development of the concept of a sulfane pool, its composition, sources of sulfane sulfur, and causes of sulfane depletion. A discussion of thiol-disulfide exchange reactions is given in Chapter 4. Types of reactions, effects on protein function, and stimulation following exposure to toxicants are considered. Chapters 5 and 6 both are related to cysteine conjugate β-lyase. A description of the enzymes, their properties, methods for isolation, and physiological and toxicological implications of this activity are provided. Some overlap exists between these chapters, but each has its own focus. In Chapter 7, the metabolism and toxicity of carbon disulfide are considered.

The rationale for the choice of topics to be included in this volume is not clear, and not all of the chapters are directly related to the topic of sulfur-containing drugs and related compounds. Because most of the chapters are relatively concise, this volume may not be of interest to researchers actively involved in the respective fields that are covered. This book may be more useful to toxicologists who want a brief background in these topics and perhaps a starting point for further reading or research.

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