

BOOK REVIEW

Alkaloids: Chemical and Biological Perspectives, Vol. 5. Edited by S. W. PELLETIER, Wiley-Interscience, John Wiley and Sons, Inc., 605 Third Avenue, New York, NY 10158, 1987, xiii+714 pp., 17×24 cm., \$125.

This is a worthy addition to the series of volumes edited by Professor S. William Pellerier on the chemistry and biology of alkaloids. It consists of five chapters. The first, by Alan D. Elbein and Russell J. Molyneux, ably discusses in detail the chemistry and biochemistry of recently isolated indolizidine alkaloids. These are produced either by leguminous plants or by microorganisms. Some of the indolizidines, particularly swainsonine and castanospermine, are of interest because of their enzyme inhibiting properties.

The succeeding chapter, by Emery Gellert, covers the phenanthroindolizidine alkaloids which are found in members of the Asclepiadaceae and Moraceae botanical families. The antineoplastic activity of a number of these bases has been properly emphasized, and the hypotheses to explain their actions have been presented in lucid form.

The Franco-British team of André Cavé, Michel Leboeuf, and Peter G. Waterman present the third chapter which deals with the aporphinoid alkaloids of the Annonaceae. The strong point here is that the authors, particularly the French component, are responsible for most of the significant advances in this specific field in recent years with the result that the presentation is completely authoritative and definitive, at least to the time of writing.

The fourth chapter is by Paul L. Schiff, Jr. and covers the chemistry and pharmacology of the *Thalictrum* alkaloids. This contribution is so thorough and encyclopedic that it covers no less than 367 pages and could have amounted to a separate volume. Several other reviews on *Thalictrum* alkaloids have appeared, but this is unquestionably the most complete and includes an impressive 669 references.

The last chapter is by Tomas Hudlicky and colleagues and emphasizes the synthesis of the cephalotaxine alkaloids, important because of the potent antileukemic activity of some of their representatives. The discussion makes for fascinating reading because of the intelligent and critical presentation.

The one item which could have been improved in this book are the structural diagrams, some of which are much too large and consume precious space. Even though today diagrams are usually drawn by the individual authors, it is desirable to somehow work out some method by which all drawings would be of standard size and shape. In all other respects, this is an admirable book.

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