

BOOK REVIEW

Alkaloids: Chemical and Biological Perspectives, Volume 2: Edited by S. W. PELLETIER. John Wiley, Chichester, 1984. xi + 490. £69.35.

The second volume of this new series has made a welcome entrance into the alkaloid arena. There are five chapters, each one being an up-to-date review article on an alkaloidal topic, including X-ray diffraction techniques for structure determination (48 pages), imidazole alkaloids (56 pages), quinolizidine alkaloids of the Leguminosae (44 pages), the chemistry and pharmacology of maytansinoids (56 pages) and ^{13}C and ^1H NMR data and physical constants of C_{19} diterpenoid alkaloids (258 pages). Hence half the volume is devoted to a mainly tabular review of the physical properties of C_{19} diterpene alkaloids. There are now a number of such reviews in the literature covering specific groups of alkaloids and they are invaluable for scientists who work with those particular compounds.

Single crystal X-ray diffraction has become one of the most powerful methods for structure elucidation and the opening chapter reviews the technique giving specific examples from the alkaloid literature. Imidazole alkaloids represent a minority group within the alkaloid

family but their number continues to increase and this review is more than timely since the last comprehensive review appeared in 1953 (a year when there was a remarkably good crop of entrants to Pharmacy at the University of Manchester!). The chapter on legume quinolizidines has good breadth and covers structural types, biogenetic and chemotaxonomic relationships, analysis (particularly GC/MS), and biological activities in plants and animals. Did you know that quinolizidines exert at least 12 different types of biological activities? The maytansinoids have received particular attention because of the anticancer activity of some of the series. The occurrence, separation techniques, characterization, synthesis, antineoplastic and pharmacological properties, pest control properties and biosynthesis of maytansinoids are comprehensively reviewed.

A useful addition to the alkaloid literature aimed at a wide group of scientists? Definitely yes. Should every alkaloider have this volume on their shelves with the rest of the series? Definitely yes. Then why does the price of this volume take it beyond the reach of many individuals?

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