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BOOK REVIEWS

Chemistry, Biological and Pharmacological Properties of African Medicinal Plants: edited by K. HOSTETTMANN, F. CHINYANGANYA, M. MAILLARD and J. L. WOLFENDER, University of Zimbabwe Publications, PO Box MP203, Mount Pleasant, Harare, Zimbabwe, 1996. 336 pp. $50. ISBN 0-908307-59-4.

The flora of the African continent is rich and varied and there are many endemic genera and species. There has long been a traditional use of many of these plants as sources of healing drugs. The idea of having a conference on the phytochemistry and pharmacology of African plants therefore seemed an inspired project and this symposium volume stems from just such an international meeting held at Victoria Falls, Zimbabwe in February 1996. It contains 24 articles and roughly half the authors are African, with the remainder largely originating from Europe. There is a great deal of interesting phytochemistry in this volume and a wealth of structural formulae illustrate most of the chapters. Some African plant families receive special attention, including the Burseraceae (P. Waterman), the Meliaceae (D. A. Mulholland) and the Combretaceae (C. B. Rogers and L. Verotta). E. Dagne provides an overview of African aloes. There are also chapters on wound healing plants, on ethical phytomedicines and on anti-malarial active principles. As a whole, the volume provides a fascinating snapshot of current use of medicinal plants in different parts of Africa, together with an appropriate background of the phytochemical constituents that have been identified in them. It is a useful addition to the burgeoning literature on the World's medicinal plant armoury.

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Saponins Used in Traditional and Modern Medicine and **Saponins Used in Food and Agriculture**—both edited by G. R. WALLER and K. YAMASAKI, Plenum Press, New York, 1996. 606 pp. $145; 441 pp. $120. ISBN 0–306–45393–2 and 0–306–45394–0.

These two volumes contain the Proceedings of a five-day ACS Symposium held in Chicago in 1995. There are over 80 papers and almost every aspect of current saponin research is discussed here. Like so many symposium proceedings today, these volumes contain a mixture of short research papers (e.g. enzymatic glycosylation of tomatidine in tomato plants) and mini-reviews (e.g. steroid and triterpenoid oligoglycosides of marine origin). Most articles unfortunately lack abstracts, but on a positive side there are both species and subject indexes in both volumes.

Some emphasis has been given to methods of saponin structural analysis and there are several useful papers on the applications of NMR and mass spectral procedures to these complex natural products. Problems arise in both determining the aglycone moiety and also the oligosaccharide components that are linked to them; some solutions are provided in these volumes.

A common theme in many papers is the biological activity of particular saponins and while we are still far from understanding fully the raison d'être of saponin production in plants, there is increasing evidence that saponins can be useful to mankind, e.g. in controlling human diseases such as schistosomiasis. Saponins also have significant antifungal activity and this is considered in several contributions.

The publication in 1995 of the first book on saponins written by K. Hostettmann and A. Marston was an important landmark in this field. One need look no further than this for an authoritative and up-to-date account of plant saponins. These two symposium volumes are broadly complementary to Hostettmann and Marston. They provide the reader with more varied and detailed aspects of modern saponin investigations and have the advantage of containing contributions from most of the leading experts.

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