

**Taxus: The Genus *Taxus*. Medicinal and Aromatic Plants—Industrial Profiles. Volume 32.** Edited by Hideji Itokawa and Kuo-Hsiung Lee. Taylor & Francis, London and New York. 2003. xiii + 456 pp. 18 × 25.5 cm. ISBN 0-415-29837-7. \$145.00.

Following the isolation of Taxol (now known as paclitaxel) from the bark of the Pacific yew (*Taxus brevifolia* Nutt.) by the late Monroe E. Wall and by Mansukh C. Wani in 1971 and then its initial introduction as an anticancer agent about a decade ago, this natural product has stimulated a prodigious amount of research among basic scientists and clinicians alike. This book reports on recent developments on the taxoids and succeeds in meeting its stated aim of updating an earlier volume covering much of the same subject material, edited by the late Matthew Suffness of the U.S. National Cancer Institute, entitled "TAXOL: Science and Applications" (CRC Press, Boca Raton, FL, 1995).

Of the 12 chapters in this volume, the introductory chapter is notable for the proposal of a new taxoid numbering system, with both the C-16 and C-17 methyl groups assigned to  $\beta$ -stereochemistry. Chapters follow, sequentially, on the biosynthesis of paclitaxel; the structural classification of some 360 naturally occurring taxane derivatives from about eight yew species; physical and spectroscopic methods for the identification of the taxanes; the plant tissue culture of taxoids; the commercial production of paclitaxel from the Japanese

yew, *T. cuspidata*; analytical methods for the taxoids including purification and chromatographic procedures; chemical reactions, interconversions, and semisynthetic methodology for the taxoids; the total synthesis of the taxoids; structure–activity relationships of the taxoids; preclinical and clinical studies of the taxanes; and the paclitaxel content of yews in Ireland. The volume is provided with an author index and a subject index, and there is one colored plate. In general, this work has been compiled with considerable diligence, but the reference sections in some of the earlier chapters are slightly marred by certain incomplete or inconsistent citations and various typographical errors.

"Taxus: The Genus *Taxus*" is an outstanding addition to the book series "Medicinal and Aromatic Plants—Industrial Profiles" and will become an important long-term reference source for chemists and biologists with an interest in the taxanes. Its purchase is strongly recommended by individuals working on these compounds and by libraries of institutions where research in medicinal chemistry and natural products is conducted.

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