

Techniques of Flavonoid Identification: by K. R. MARKHAM Academic Press, London, 1982 113 pp. \$19.50

As the author points out in his preface, a great deal has been written on flavonoids, but practical aspects and techniques are hardly ever discussed in detail. This is true, indeed, in spite of the existence of such valuable standard books as *The Systematic Identification of Flavonoids* (1970) and *The Flavonoids* (1975).

The present slim volume successively deals with isolation and analytical techniques, UV spectroscopy, hydrolysis and analysis of glycosides, derivatization and degradation techniques, application of NMR and mass spectroscopy. Thus, it follows the suggested scheme for the structural elucidation of flavonoids from natural sources. This arrangement already indicates that the present booklet is designed by an experienced worker in this field for practical use. For example, laboratory techniques like CC and recrystallization are described, the artifact ion in mass spectra at m/z 149 is mentioned and so on. Every student starting to work on flavonoids will

benefit from this book at the very beginning of his work and he will probably still use it when he prepares his doctoral thesis. It is conveniently illustrated with diagrams, there is one demonstrating the range of UV absorption spectra for different flavonoid types, and another the NMR spectra with interpretation of the signals. The tables concerning the interpretation of UV spectra give a useful summary of the shifts that occur with the classical reagents in the different flavonoid types. The chapters are written in a clear, concise style and are easy to read. The references admirably cover the relevant literature, up to the 1982 edition of *The Flavonoids — Advances in Research*. In my opinion a copy of this handy booklet should be available in every phytochemical laboratory wherever flavonoids are dealt with. It will serve as a valuable laboratory manual and it will become a reliable companion for all those working with this group of natural products.

Institut für Botanik, ECKHARD WOLLENWEBER
Technische Hochschule Darmstadt