

bution of iridoids, tannins and alkaloids is considered *en passant* in a chapter by R. Dahlgren entitled 'Contribution on the diagrammatic presentation of the angiosperms in relation to the distribution of character states'. While Dahlgren's now well-known balloon-like phylogenetic shrub can be criticized on a number of grounds, it does represent a considerable advance over the old-style phylogenetic tree. It is at least extremely valuable to phytochemists since it will tell them at a glance whether the distribution of any new character they find is of any systematic significance or not. Chemical characters are also considered by R. F. Thorne in a highly interesting and thought-provoking chapter 'Some realignments in the Angiospermae'. Certainly one can take issue with a number of judgements made here, but this author refers to a whole series of unsolved taxonomic problems which would be worthy of attention from phytochemists.

Space prevents an outline of the many other interesting contributions to this fascinating symposium volume. It is highly unusual to find taxonomists willing to discuss at length their faults, frustrations, and failures and to all phytochemists who have naively accepted that the Cronquist-Takhtajan Concordiat represents the last word on angiosperm classification this volume is a must. Unlike many symposia proceedings, this one I am sure is of lasting value and it will be worth re-reading in five, ten or fifty years time. It is the first time that such a talented group of plant scientists have ever been brought together to discourse to such purpose on angiosperm classification from so many different viewpoints. It thus represents a unique contribution to modern plant systematics and deserves to be widely read.

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Biochemistry of the Cell Nucleus: edited by P. B. GARLAND and A. P. MATHIAS. Biochemical Society Symposium Number 42, 244 pp., 1977, £15.00.

The papers in this Symposium Volume cover many aspects of the structure and function of the cell nucleus, although as is perhaps inevitable in such a wide-ranging topic coverage is uneven. Thus there are four chapters on deoxyribonucleic acid polymerases and only one on chromatin structure. Four chapters on deoxyribonucleic acid polymerases are followed by chapters on DNA-dependent RNA polymerases, messenger RNA synthesis, processing and regulation, and post-synthetic modifications of nuclear macromolecules. There are chapters on chromatin structure, structure and function of nuclear membranes, non-histone chromosomal proteins and 45S RNA. The last two chapters deal with injected amphibian oocytes and gene transcription, and

mitosis and microtubule assembly.

Although there is an emphasis on enzymology, recent developments in structural and cytological aspects are also well covered. Most authors have opted for a critical review, indicating clearly where they feel there are deficiencies in knowledge and the way in which further progress is most likely to come. As they are all leading researchers in their particular fields, this makes for interesting reading, but documentation is by no means encyclopaedic.

This is another well written and attractively produced book in the Biochemical Society Symposium series. It can be recommended not only to researchers in the fields covered, but also to anyone who wishes to have a critical assessment of the important developments in these areas.

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