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Book Review

Handbook of Derivatives for Chromatography; edited by K. Blau and G.S. King, Heyden, London - Philadelphia, N.J. - Rheine, 580 pp, 1977. £ 24.00, US $ 48.00, DM 154.00.

Books and reviews dealing with the practice and theory of chromatography abound; comparative studies of the ways in which compounds should best be prepared for both analytical and preparative chromatographic evaluation do not. The art has much to do with protective methodology, yet that which is useful in the context of synthesis is not always practicable in the analytical sense.

In this Handbook, the Editors have performed an invaluable service in collating a series of articles, each written by an acknowledged expert or experts, which taken as a whole remedy the deficiency. Not surprisingly, the work has an organic slant as revealed by chapters on acylation, alkylation, cyclisation, esterification, nitrophenyl derivatives, ketone base condensation and silylation. Inorganic aspects have not been neglected as evidenced by sections on derivatives of inorganic anions, and the preparation of metal ion chelates for GLC analysis. Chapters on ion-pair extraction, fluorescent derivatives and microreactions serve as useful interdisciplinary contributions.

The key question: "what is the best derivative for a given substrate in a given set of circumstances?" is for the most part answered; this is not easy to achieve given the enormous variety of derivatives and reagents to be found in the current literature. The reviewer's field of interest, namely silylation, is particularly tortuous in this respect and is littered with abbreviations coined to cope with the extensive variety of non-leaving groups, attached to silicon, chosen for electronic or steric criteria or for their electron capture ability for example. This information is now available at a glance in tabular form in the relevant chapter. Some overlap of material is inevitable given the organisation of chapters but this does not detract from the value of the book.

References to key papers and reviews appear to be complete up to the end of 1975 and some material published in 1976 is cited. A random check reveals a fair number of trivial errors, mis-spelt surnames plus incorrect initials etc., but hopefully this should not lead to too much confusion provided individual chapters rather than references are cited.

The Handbook is good value given its price and size.

School of Molecular Sciences,
University of Sussex,
Brighton BN1 9QJ (Great Britain)

D.R.M. WALTON