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Book Review

An introduction to nonanalytical applications of gas chromatography, by K. L. Mallik, Peacock Press, New Delhi, 1976, IX + 224 pp., price Rs 60.00, US$ 13.95.

This book has the distinction of being the first in its field; we may hope that it will not long remain alone. The field is that of physicochemical measurement by gas chromatographic methods, an area which has grown enormously in the last two decades and is now much in need of evaluation and explanation to research workers and students alike. Despite its essential simplicity the use of gas chromatography has become quite sophisticated in some of its recent physicochemical applications and the newcomer needs a clear guide to methods of measurement and analysis if his results are to realise the full potential of the technique. This book, however, is evidently not intended to meet that particular need. Instead, "In a general way, the aim of the author has been to present a concise and comprehensive treatment of the different aspects of the nonanalytical uses of the gas chromatography". (For "nonanalytical" we may read "physicochemical" since preparative and production applications are excluded.) Thus, the approach is descriptive rather than concerned with rationalisation or methodology. Chapter 2, for example, deals with "Simplified fundamentals and elemental theory" (*sic*) and such matters as the practical analysis of chromatograms are largely omitted, as befits an introductory account.

As every author knows to his cost it is always dangerous to claim that a book is comprehensive even if it is simultaneously entitled "An introduction". In this case, gas–solid chromatography has been overlooked (apart from measurement of surface areas), while many of the fields that have become major areas of activity in the last ten years, such as finite solute concentration, liquid crystals, polymer solutions and phase transition behaviour in polymers and other solids and liquids, are omitted or covered only be a reference or two to the literature. Other topics are sometimes treated in a rather superficial fashion and the chapter on complexes manages to omit Purnell's seminal classification of 1966 which has been the basis of all subsequent work. However, vintage material is well covered and, although the references are relatively few, it must be recognised that for a single writer working alone to cover even part of this large field is a considerable undertaking. Mallik has made a brave attempt and his book is successful within its own terms of reference.

The book endears itself to the reader, especially in its generalisations, by a certain warm and wordy style of writing. The last word, too, must go to the author with the quotation from Cardinal Newman on the flyleaf: "A man would do nothing if he waited until he could do it so well that no one would find fault with what he has done".

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