

and the authors are further denied the normal opportunity to catch their own errors and those of the editor and typesetter at the galley-proof stage. I urge future authors to study this problem before blindly proceeding with similar endeavors of their own.

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Book Review

Mass spectrometry in drug metabolism, edited by A. Frigerio and E. L. Ghisalberti, Plenum, New York, London, 1977, XII + 532 pp., US\$ 51.00, ISBN 0-306-31018-X.

This volume is a collection of reviews and papers presented at the International Symposium on Mass Spectrometry in Drug Metabolism held at the Mario Negri Institute in Milan in June 1976. Currently mass spectrometric methods play an important role in studies in this area and the contents illustrate the utility of these methods when used in combination with other spectroscopic techniques for the identification of drugs and their metabolites, and the unique ability of mass spectral methods to give high sensitivity in combination with specificity for quantitative studies. The use of direct probe, combined gas chromatography-mass spectrometry with electron impact and chemical ionization mass spectrometry are well illustrated in a number of contributions in this text. In addition the utility of field desorption mass spectrometry as a method for identifying the salts of drugs and the value of computerization in this area are shown in other papers.

Detailed studies are presented on the metabolism and quantification of a wide variety of drugs and biologically important molecules illustrating the interplay of mass spectral and other methods of study in this area, e.g. the paper by Vink, De Ridder, Timmer and De Nijs (p. 167) shows how prior clean-up of plasma extracts by high-pressure liquid chromatography provides improved selected ion monitoring data in drug quantification.

In addition to the contributed papers the volume contains reviews on Selected ion monitoring (A. Frigerio and E. L. Ghisalberti), Chemical ionization mass spectrometry (E. L. Ghisalberti), the Role of computers in gas chromatography-mass spectrometry (J. Roboz) and the Use of gas chromatography-mass spectrometry in identifying drugs of abuse (H. Brandenberger). These reviews provide a useful introduction to workers new to this area to some of the advantages and disadvantages of current methods.

Although the volume gives the reader a flavour for current methods, a major omission is a lack of reference to the use of surface-coated open tubular and capillary columns in combined gas chromatography-mass spectrometry in most of the studies reported. Use of these techniques, apart from increasing mass spectrometer source life, can lead to increased specificity and sensitivity in assays and identification of metabolites not detected in packed column studies. A further omission which is common in publications of this type is that the contents do not make the reader aware of current advances which may be of considerable utility in the area, *e.g.* negative chemical ionization mass spectrometry and combined liquid chromatography-mass spectrometry. This omission is not the fault of the editors but is due to the rapid rate of instrumental advance and the inevitable time-lag in publication.

Whilst this volume will be a useful source of reference on library shelves for workers in drug metabolism and applied mass spectrometry and workers in other disciplines who are not aware of the capabilities of mass spectral methods; at the price it cannot be recommended to the individual buyer.

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