

volume becomes unique and interesting with regard to the use of gas chromatography for the analysis of micro-organisms, identification of viruses, nematodes, cestodes, trematodes and subcutaneous and systemic fungal agents. There are four main methods: (1) The extraction of a specific group of substances such as lipids which may then be examined for their characteristic contents, (2) Headspace analysis, (3) Pyrolysis gas chromatography, and (4) Multicomponent analysis of specimens.

The book is balanced in giving sufficient details for the non-microbiologist to appreciate the life forms of some of the infective agents and for the biologist to understand the methods of analysis. The problems in identifying some characteristic gas chromatography 'peaks' which may be related to a specific abnormality of metabolism or related to some infective agent are clearly outlined. Jellum notes in his contribution that an unknown mass spectrum obtained with a GC-MS computer instrument may be checked and matched against a reference file of 24 000 compounds in 7 seconds. This is impressive. Excluding work related to micro-organisms, the use of gas chromatography in medicine is mostly in the diagnosis of metabolic disorders, of which there are many known today, the analysis of steroids, drugs and toxicological agents (including alcohol), chemical carcinogens and selected compounds of biomedical importance such as prostaglandins and vitamins. Practical details and references are given for analysing these compounds as

well as alcohols, amines, carbohydrates, fatty acids and amino acids. However, the index at the end is not entirely satisfactory, e.g. the most recent literature reference to a method for amino acids (p.223) is not indexed. Although references up to 1973 are quoted in some chapters, those of post-1971 seem to be limited in number and this is probably a reflection of the time taken for publication.

The book is well produced with figures and tables and few typographical or other errors were found. Its value lies in the way the application of gas chromatography to a wide variety of biological compounds has been collated, and it will be of interest to microbiologists, pharmacologists, biologists and biochemists. The price may restrict its purchase by individual workers. This reviewer has not seen other books which compete with this one and the most nearly related are already several years old [1-3].

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- [3] Porter, R. (ed.) (1969) *Gas Chromatography in Biology and Medicine*, J. and A. Churchill; London.

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