

## Book Reviews

**Methods of Enzymatic Analysis, Volume 1—Fundamentals.** Edited by M. U. Bergmeyer, Verlag Chemie, 1983. xxiv + 574 pp.

Volume 1 of *Methods of Enzymatic Analysis* is intended to introduce the reader to the theoretical basis and practical aspects of enzymatic analysis and, in this respect, to complement the other nine volumes of the series. Producing a comprehensive treatise on any topic is an awesome task as it is impossible to produce a piece of work that is all things to all men. Different readers are therefore likely to view the first volume, and probably the whole series, in a different light.

The book is divided into three main sections; an introduction, a section on theoretical considerations and a final section on techniques of measurement and instrumentation. The sections are divided into a number of sub-sections, written by a total of thirty-five contributors, which has resulted in a certain lack of continuity, although a degree of uniformity has been striven for. The introduction is concerned in the main with the reproducibility and standardization of assays and methodologies and approaches to achieving these ends. On the whole, the section is somewhat protracted—a situation exacerbated by the multiplicity of sub-sections. Under the heading of 'Theoretical Consideration' are included sections on enzyme kinetics, constants and the determination of enzyme activity. The greater part of this section is covered in numerous introductory texts to enzymology and has no doubt been included for the sake of producing a comprehensive treatise. The sub-sections on the chemical design of indicator reactions and principles of enzyme-immuno

assays made interesting reading. The final section is concerned with techniques of measurement and instrumentation. Again, the main criticism of this section is its length; twenty pages, for example, are devoted to volume measurement. Similarly, techniques such as fluorimetry, luminometry, photometry and the handling of radiochemicals are outlined in numerous texts. It is unfortunate that useful information is lost against this background.

In conclusion, this volume contains useful information but in an attempt to produce a comprehensive treatise too much introductory material has been included. Eventually, this volume will have to be judged in the context of the whole series which, no doubt, will be purchased by numerous libraries as reference texts. It is hoped, however, that the remaining volumes will be more concise.

**K. Jones**

**Automatic Control of Food Manufacturing Processes.** By Ian McFarlane. Applied Science Publishers Ltd, London, 1983. x + 319 pp. Price: £34.00.

Any text covering the applications of process control in the food industry is welcome as this is probably one of the most rapidly developing and important areas facing the industry at this time. This book is worth reading from this point of view alone.

It is, however, difficult to judge the author's intended readership. Is it likely to be the food technologist grappling with the problem of upgrading his particular process with the new technology or the instrument and control engineer looking for applications of his expertise in the industry? As the book is written from the point of view of the control engineer, the former would find much of the introductory chapter incomprehensible, given its reliance on jargon and specific control procedures. Sections on data transmission, APV Paracode and PLC program sequences are out of place for anyone unfamiliar with the technology. The introductory chapter does discuss potential savings from automation and the need and requirements for sensors and in-line analytical instruments which as much as microprocessors, form the basis of process control.

The major portion of the book is a comprehensive survey of process control in the food industry. This is divided into chapters on raw materials handling, recipe dispensing, pre-processing, cooking processes,