

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,

biochemical processes and, finally, finishing and packaging. These chapters constitute an impressive review of current food processing and its associated measurement and control. The book is worth while for these chapters alone. Certainly, they identify both the diversity of food manufacturing processes and the common threads running through much of the industry.

The final chapter on integrated plant control identifies both a general approach to implementing a comprehensive scheme and ideas for process optimisation. In both these the author freely uses examples from the literature.

An appendix on the mathematical aspects of control theory is included, and there is an extensive list of references.

One aspect of the book was disappointing in that the author restricted himself to current published practice and did not discuss potential developments or specific needs (e.g. in-line analysis).

The majority of the book was easy to read, with clear (if of somewhat inconsistent style) diagrams. A worthwhile read.

G. A. Le Grys

Handbook of Indigenous Fermented Foods. Edited by K. H. Steinkraus, R. E. Cullen, C. S. Pederson, L. F. Nellis and B. K. Gavitt. Marcel Dekker, New York, 1983. 671 pp.

If you want to know about the patterns of consumption, methods of production, microbiology, biochemistry, nutritive value, economics and future consumption trends of Egyptian *bouza*, Indian *idli*, Indonesian *tempe*, Japanese soy sauce, Mexican *pulque*, Nigerian *ogi*, South African bantu beer or a host of other fermented foods from around the world then this book should be your reference of first recourse.

The book is based upon papers submitted to a Symposium on Indigenous Fermented Foods which was held in Bangkok, Thailand, in 1977. However, rather than being the usual collection of conference papers of widely differing styles and standards, the Editors have undertaken the herculean task of condensing the submitted papers and combining them with more recent literature to produce a comprehensive text and reference book of non-Western fermented foods. They have accomplished this with considerable success and the book is eminently readable. However, one slightly unfortunate consequence of this