

Topics in Enzyme and Fermentation Biotechnology, Vol. 1

Edited by A. Wiseman
Ellis Horwood; Chichester, 1977
191 pages. £10.50, \$19.95

Biotechnology exploits the great and unique powers of living cells to perform chemical transformations under mild conditions, to utilize renewable resources and to abate environmental pollution. The field of biotechnology lies between biology, particularly microbiology, chemistry and engineering or physics. Like any newcomer in science, especially if it is interdisciplinary, the subject has to fight for a place in the establishment. It is still orthodox to think that biology consists of botany and zoology; for instance, university library catalogues still do not recognise microbiology.

The close forerunners of this book of reviews are *Advances in Applied Microbiology*, *Progress in Industrial Microbiology* and *Advances in Biochemical Engineering*. This latest contribution shows that there is justification for another review source.

J. Melling discusses continuous flow culture and some significant advances in knowledge of environmental control of microbial behaviour. A. Thomas and M. A. Winkler present a good systematic study

of theory and practice in foam separation of biological materials. G. T. Banks considers the problems of defining the parameters which control oxygen transfer from gas to liquids, especially in non-Newtonian fluids. M. O. Moss discusses enzymic transformations of penicillins and cephalosporins from the point of view of antibiotic design.

Developments in biotechnology can have great commercial importance and this is reflected in the article on patents by F. S. M. Grylls. His article conveys the principles and the spirit of patent law with great style so that the dry legalistic bones are made to live.

C. Bucke covers comprehensively the glucose isomerases. Knowledge of cytochrome *P-450* and its industrial importance are lucidly presented by A. Wiseman.

The subjects are covered broadly and in depth with extensive bibliographies. It is to be recommended as an authoritative source book.

S. J. Pirt

The Urea Cycle

Edited by S. Grisolia, R. Baguena and F. Mayor
J. Wiley and Sons; New York, Sydney, London, Toronto, 1976
xx + 579 pages. £22.00, \$37.50

Books and reviews devoted to all aspects of Sir Hans Krebs' most famous discovery, the tricarboxylic acid cycle, abound. In contrast, detailed accounts of the urea cycle, Sir Hans' other and earlier cycle, are much less common. This book reports the proceedings of a conference held in Valencia in

1975 which is described in the preface as a gathering of Sir Hans' urea cycle 'family'. The 'family' is a large one and on the evidence of the articles included has interests ranging from the purely chemical through biochemical investigations concerning the enzymology and control of the urea cycle and related pathways