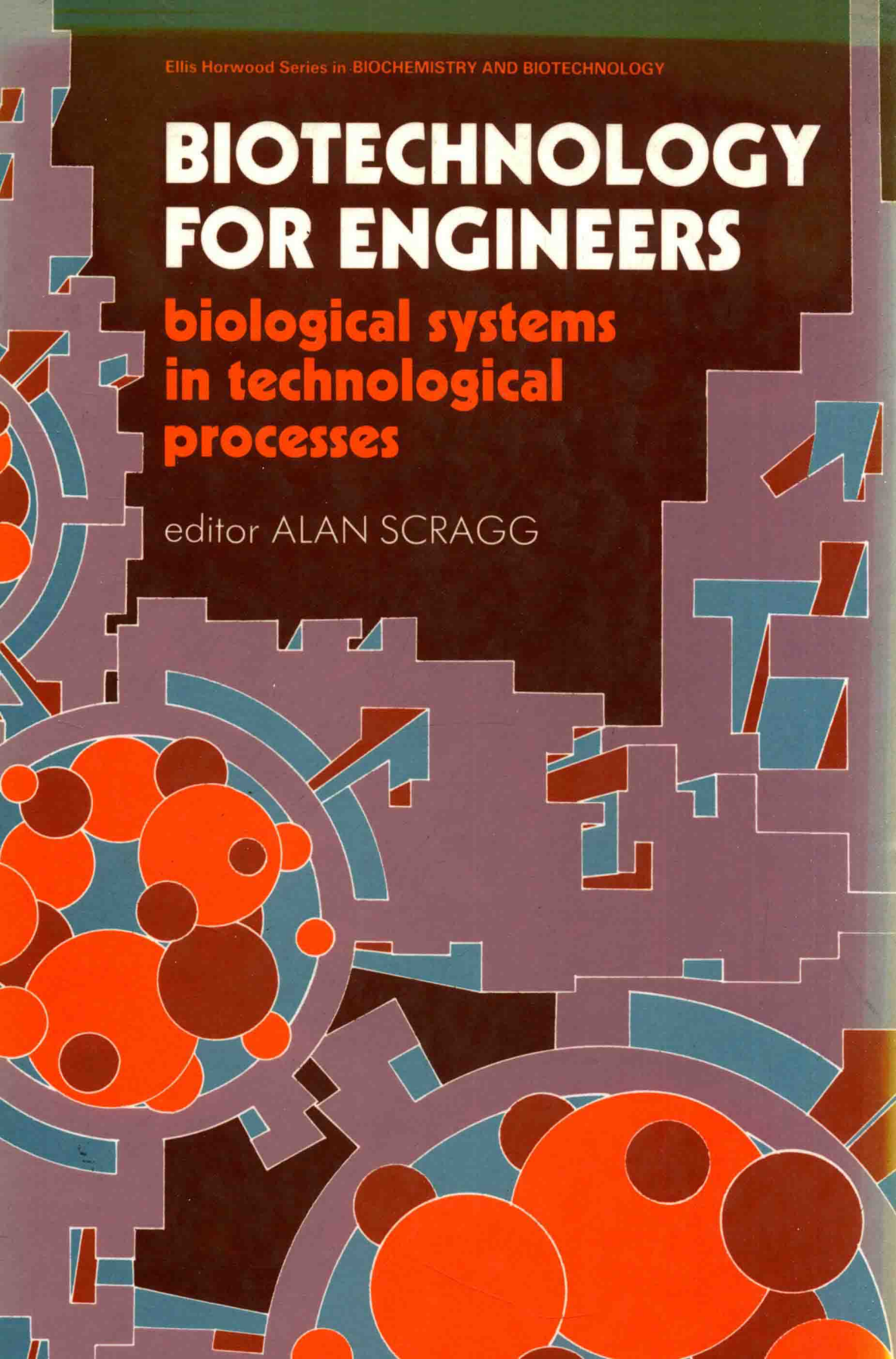


Ellis Horwood Series in BIOCHEMISTRY AND BIOTECHNOLOGY

BIOTECHNOLOGY FOR ENGINEERS

**biological systems
in technological
processes**

editor ALAN SCRAGG



BIOTECHNOLOGY FOR ENGINEERS

Biological Systems in Technological Processes

Editor:

A. H. SCRAGG

Senior Lecturer and Deputy Director

Wolfson Institute of Biotechnology

Department of Molecular Biology and Biotechnology

University of Sheffield



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Ellis Horwood Series in
BIOCHEMISTRY AND BIOTECHNOLOGY

Series Editor: ALAN WISEMAN, Department of
Biochemistry, University of Surrey

**BIOTECHNOLOGY FOR ENGINEERS:
Biological Systems in Technological Processes**

Editor: ALAN SCRAGG, Senior Lecturer and Institute
Deputy Director, Wolfson Institute of Biotechnology, Div-
ision of Molecular Biology and Biotechnology, University
of Sheffield

There is a definite need for a book which makes the biosciences amenable to engineers who may find biological science "jargon" somewhat daunting. Containing the relevant material required to bring the chemical engineer to a high level of awareness of biological systems, this new work provides a well balanced explanation with the emphasis on the basic bioscience, illustrated with accounts of some key industrial processes. The book is adapted from a course run on "Basic Biotechnology for Engineers", run at the prestigious Wolfson Institute of Biotechnology at the University of Sheffield.

The authors input up-to-date information from such subjects as microbiology, molecular biology, genetic engineering, chemistry and chemical engineering, conferring on biotechnology a new importance in industry for the development of new technologies based on renewable sources. Based on material presented to engineers of limited biological knowledge, who are nonetheless called on to assess or work alongside biologists in the development of biotechnological processes (e.g. chemical engineers, production managers), it emphasises the need for good communication and the rapid transfer of knowledge and expertise. The book will be instrumental in teaching scientists and managers from a wide range of disciplines to speak the same language.

Readership: Chemical engineers and industrialists seeking a clear definition of biological and biotechnological matters. Biological chemists, biotechnologists, microbiologists seeking a valuable refresher course. Genetic engineers, molecular biologists, fermentation and brewing engineers.

Prior to the position of Deputy Director at the Wolfson Institute of Biotechnology, **Alan Scragg** was formerly a Senior Scientist with Cadbury-Schweppes plc (1975–83). He was on the staff of the Biochemistry Division of N.I.M.R. in London (1970–75); and was a Post-doctoral Fellow of the University of Wisconsin, USA (1968–70). He was awarded a B.Sc. in Microbiology (1965) from Queen Elizabeth College, University of London, and a Ph.D. in Microbiology (1968) from University College, London. Dr Scragg has contributed chapters to three other books.

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