

Student Textbooks from Portland Press



Life Chemistry & Molecular Biology

By E J Wood, C A Smith and W R Pickering

1 85578 064 X Paper November 1996 240 pages £16.00

"crafted by experienced teachers who know the elements of conveying core information to students, [this book] has the potential to redefine the use of textbooks in teaching biochemistry."
ASBMB Inc Newsletter.

*"This is an excellent learning tool with copious illustrations and an accessible text...
I cannot recommend this book too highly."*
TES Friday

This is a new biology textbook which uses a unique and innovative format, consisting of a series of annotated diagrams with linking text, to make it an ideal study-guide for students as well as a valuable tool for teachers. Each chapter includes further reading suggestions and also examination questions. Biological principles and their application in commercial, medical, ecological and physiological contexts are explained in the book. The text covers information for the newly proposed A-level syllabuses, and is equally useful for undergraduates and students of vocational life-science courses.

Contents: Life Chemistry and the Ecosystem; Biological Molecules; Enzymes; Obtaining Energy; Using Metabolic Energy; DNA: Dealing with Information; Molecular Biology and Applied Biochemistry

Glossary of Biochemistry and Molecular Biology

By D M Glick

1 85578 088 7 Paper October 1996 220 pages £16.50

"it will make a welcome addition to the reference shelf."
SFEP Newsletter

Glossary of Biochemistry and Molecular Biology compiles nearly 3000 terms and gives succinct definitions to assist those who wish to converse with biochemists or molecular biologists in their native tongue! Some of the terms appear only in earlier literature, some are very current, some are common terms invested with new meanings, some are lab. jargon.

References are included with many of the entries, to assist the reader in searching for additional information. These citations, frequently review articles, are offered as a convenient introduction to the literature on the subject. The glossary should be of interest to undergraduate and post-graduate students, to new researchers and to other professions having to interface with modern biochemistry or molecular biology.

Basic Chemistry for the Biological Sciences: A Self-Directed Study Aid

Edited by C Wynn

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1 85578 116 6 Teacher sets (one folder + 15 sets loose leafs) £125/set (postage free)

This study aid has been designed, after undergoing extensive trials, to help students studying biology with fundamental chemistry. The study aid is arranged in the form of graded questions, with the answers at the end of each section. Questions based directly on biological examples are included, so that the connections and relevance to biology can be appreciated. Students studying A-level biology and those taking vocational science courses, as well as, undergraduate students in the biological sciences and the allied health sciences will find this guide invaluable.

Contents: Atomic Structure and Bonding; Chemical Equilibrium; Acids and Bases -pH-Buffers; Rate of Reaction; Oxidation and Reduction; Basic Organic Chemistry; Ring Compounds; Supplementary reading; Index

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Fundamentals of Enzyme Kinetics

By Athel Cornish-Bowden, LCB-CNRS, France

1 85578 072 0 Paperback July 1995 352 pages £18.00

"Overall then, this is a readable reference text both for teachers and researchers, and one which confident undergraduates might also dip into." *Education in Chemistry*

"It gives the best presentation available and is an essential complement to modern texts of biochemistry, which tend to minimize their treatment of enzyme kinetics."

Journal of Membrane Biology

This book describes the principles of enzyme kinetics, with an emphasis on the fundamentals, rather than an encyclopaedic accumulation of facts, to allow readers to fill in gaps for themselves and proceed in the subject as far as they need to. In this way it provides the basis for understanding enzyme kinetics, whether at the level of the undergraduate, the research student or the researcher.

Understanding the Control of Metabolism

By David Fell, Oxford Brookes University, UK

1 85578 047 X Paper November 1996 312 pages £18.95

Frontiers in Metabolism, No. 2 Series Editor, Keith Snell, Institute of Cancer Research, Sutton, UK

This is the first textbook devoted to the new view on the regulation of metabolism, opened by the theory of Metabolic Control Analysis.

It examines the impact of this theory on conventional concepts of how pathways are controlled and argues that many widely-held ideas that pre-date Control Analysis are misleading.

As well as providing the fundamentals of Metabolic Control Analysis, using the minimum of mathematics, the book surveys its use in experiments. This is set in the context of the relevant enzyme kinetics and techniques for investigating metabolism on which the theory draws.

Understanding the Control of Metabolism is primarily aimed at undergraduates studying metabolism and enzymology. It will also be of interest to biochemists, microbiologists and molecular biologists who are interested in changes in metabolic flux induced naturally by signal transduction mechanisms or artificially via genetic manipulation. This book also considers the surprising lessons that Metabolic Control Analysis offers biotechnologists aiming to manipulate metabolic flux, and looks at how cells do this for themselves.

Metabolic Regulation: A Human Perspective

By Keith Frayn University of Oxford, UK

1 85578 048 8 Paperback April 1996 284 pages £18.95

Frontiers in Metabolism, No. 1 Series Editor, Keith Snell, Institute of Cancer Research, Sutton, UK

"The real strength of this book is that it avoids the extreme reductionist approach and presents the reader with a whole-body physiological approach, thereby giving the subject matter relevance."
Professor Malcolm Watford, Rutgers University

Metabolic Regulation: A Human Perspective conveys a modern picture of metabolism which shows there is more to understanding metabolism than being able to reproduce pathway sequences. It aims to make the study of metabolic regulation more interesting to students by placing it firmly in the context of normal daily life.

Metabolic Regulation: A Human Perspective will be invaluable to students across a broad range of the allied health sciences, including nutrition, dietetics, sports science and nursing. This volume will also be extremely useful to both college and university students of biochemistry, medicine and the life sciences. It will be a welcome addition for any student preparing for a career in human physiology.

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from Portland Press

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Physiological Determinants of Human Exercise Tolerance

Edited by BJ Whipp and AJ Sargeant

Studies in Physiology No. 4

1 85578 026 7 Paperback January 1999 192 pages £22.00

This book describes the physiological and biochemical responses to exercise. It examines the nature of the fatigue process, the adaptations which occur in response to training and how these responses are influenced by a variety of environmental factors.

Written by recognised experts in the field, this comprehensive and up to date account of the current knowledge of the subject will be of interest, and of use to undergraduate and postgraduate students of physiology, biochemistry, sports science and medicine, as well as to their teachers.

Cardiovascular Regulation

Edited by D Jordan and J M Marshall

Studies in Physiology No. 2

1 855781 024 0 Paperback October 1995 170 pages £22.00

Cardiovascular Regulation provides an up-to-date account of our current understanding of the control of the cardiovascular system which is not covered by existing student textbooks. Both students and lecturers of cardiovascular and exercise physiology, and medicine, dentistry and biomedical science will find this book informative and easy to read. Each chapter has numerous summary boxes and also 'Essential Reading' suggestions for additional reading for undergraduates and 'Further Reading' suggestions to cover the subject to postgraduate level.

Neural Control of Skilled Human Movement

Edited by F W J Cody

Studies in Physiology No. 3

1 85578 081 X Paperback December 1995 100 pages £22.00

This textbook focuses on skilled movements in man, while drawing upon vital evidence obtained in other species. Attention is directed at movements of the hand and arm, which have been studied most fully. The production of speech sounds is also an important example of skilled movement. Concise up-dates of current understanding of the roles of the main motor centres cerebral cortex, basal ganglia, cerebellum and spinal cord in skilled movement and its clinical impairments, are provided by neuroscientists renowned for their research and enthusiasm for teaching. It will be of particular interest to science (neuroscience, psychology and physiology) undergraduates with a basic grounding in neurobiology, and their teachers.

The Pathophysiology of Gut and Airways: An Introduction

Edited by P L R Andrews and J G Widdicombe

Studies in Physiology No. 1

1 85578 022 4 Paperback June 1993 130 pages £22.00

The book is an introductory text for medical and physiology students to pathophysiology. The gut and airways have many features in common and by comparing the diseases and disorders in the two systems the clinical importance of understanding normal physiological processes is illustrated.



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Portland Press

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