Handbook of Biochemistry and Molecular Biology Fourth Edition

Handbook of Biochemistry and Molecular Biology, Section B, Vol 1 Nucleic Acids. 3rd Ed

Handbook of Biochemistry and Molecular Biology

Handbook of Biochemistry and Molecular Biology

Handbook of Biochemistry and Molecular Biology: Proteins. 3 v

Handbook of Biochemistry and Molecular Biology: Cumulative series index

Edited by renowned protein scientist and bestselling author Roger L. Lundblad, with the assistance of Fiona M. Macdonald of CRC Press, this fourth edition of the Handbook of Biochemistry and Molecular Biology represents a dramatic revision — the first in two decades — of one of biochemistry's most referenced works. This edition gathers a wealth of information not easily obtained, including information not found on the web. Offering a molecular perspective not available 20 years ago, it provides physical and chemical data on proteins, nucleic acids, lipids, and carbohydrates. Presented in an organized, concise, and simple-to-use format, this popular reference allows quick access to the most frequently used data. Covering a wide range of topics, from classical biochemistry to proteomics and genomics, it also details the properties of commonly used biochemicals, laboratory solvents, and reagents. Just a small sampling of the wealth of information found inside the handbook: Buffers and buffer solutions, Heat capacities and combustion levels, Reagents for the chemical modification of proteins, Comprehensive classification system for lipids, Biological characteristics of vitamins. A huge variety of UV data, Recommendations for nomenclature and tables in biochemical thermodynamics, Guidelines for NMR measurements for determination of high and low pKa values, Viscosity and density tables, Chemical and physical properties of various commercial plastics, Generic source-based nomenclature for polymers, Therapeutic enzymes.

About the Editors: Roger L. Lundblad, Ph.D. Roger L. Lundblad is a native of San Francisco, California. He received his undergraduate education at Pacific Lutheran University and his Ph.D degree in biochemistry at the University of Washington. After postdoctoral work in the laboratories of Stanford Moore and William Stein at the Rockefeller University, he joined the faculty of the University of North Carolina at Chapel Hill. He joined the Hyland Division of Baxter Healthcare in 1990. Currently Dr. Lundblad is an independent consultant and writer in biotechnology in Chapel Hill, North Carolina. He is an adjunct Professor of Pathology at the University of North Carolina at Chapel Hill and Editor-in-Chief of the Internet Journal of Genomics and Proteomics. Fiona M. Macdonald, Ph.D., F.R.S.C. Fiona M. Macdonald received her BSc in chemistry from Durham University, UK. She obtained her PhD in inorganic biochemistry at Birkbeck College, University of London, studying under Peter Sadler. Having spent most of her career in scientific publishing, she is now at Taylor and Francis and is involved in developing chemical information products.

Principles and Techniques of Biochemistry and Molecular Biology

Published in 1975: This volume contains the completed section of the Handbook of Biochemistry and Molecular Biology with data pertaining to Lipids, Carbohydrates, and Steroids.

CRC Handbook of Biochemistry and Molecular Biology

V.1 - Proteins; v.2.A - Nucleic acids; v.2.c - Lipids, carbohydrates, steroids.

Handbook of Biochemistry and Molecular Biology: Proteins. 3 v

Handbook of Biochemistry

Handbook of Biochemistry and Molecular Biology

Handbook of Biochemistry

Handbook of Biochemistry Sect C Lipids Carbohydrates Steroids

Biochemistry and Molecular Biology Compendium

ATP-dependent active ion transport enables cells to regulate their pH value and to control their ion composition. The reverse process, transforming an ion imbalance into chemical energy, drives mitochondrial and chloroplast ATP synthesis. The mediators of these fundamental processes are ion-motive ATPases, highly conserved enzymes that play key roles in cell physiology from bacteria to man. As the first comprehensive overview of this important class of enzymes, this handbook summarizes recent knowledge about the molecular mechanism of ATPases, relating this information to the physiology and pathophysiology of ion transport, mitochondrial function, vesicle transport and lysosomal acidification. All important P-type, F-type and V-type ATPases are treated systematically, complemented by a special section on the cell biology and physiology of acidic compartments, and backed by an extensive bibliography and index. This premier reference source for physiologists, molecular biologists, biophysicists and clinical researchers contains contributions by the world's foremost ATPase research groups.

Biochemistry and Molecular Biology of Plants
Handbook of Biochemistry and Molecular Biology: Nucleic acids

Handbook of Biochemical Kinetics

Handbook of Biochemistry and Molecular Biology: Nucleic acids. 2 v

Handbook of ATPases

Since its publication in 2000, Biochemistry & Molecular Biology of Plants, has been hailed as a major contribution to the plant sciences literature and critical acclaim has been matched by global sales success. Maintaining the scope and focus of the first edition, the second will provide a major update, include much new material and reorganise some chapters to further improve the presentation. This book is meticulously organised and richly illustrated, having over 1,000 full-colour illustrations and 500 photographs. It is divided into five parts covering: Compartments; Cell Reproduction: Energy Flow; Metabolic and Developmental Integration; and Plant Environment and Agriculture. Specific changes to this edition include: Completely revised with over half of the chapters having a major rewrite. Includes two new chapters on signal transduction and responses to pathogens. Restructuring of section on cell reproduction for improved presentation. Dedicated website to include all illustrative material. Biochemistry & Molecular Biology of Plants holds a unique place in the plant sciences literature as it provides the only comprehensive, authoritative, integrated single volume book in this essential field of study.

Handbook of Biochemistry and Molecular Biology

Practical Handbook of Biochemistry and Molecular Biology

Handbook of Biochemistry and Molecular Biology

Recent advances in the biosciences have led to a range of powerful new technologies, particularly nucleic acid, protein and cell-based methodologies. The most recent insights have come to affect how scientists investigate and define cellular processes at the molecular level. This book expands upon the techniques included in the first edition, providing theory, outlines of practical procedures, and applications for a range of techniques. Written by a well-established panel of research scientists, the book provides an up-to-date collection of methods used regularly in the authors’ own research programs.

CRC Handbook of Biochemistry and Molecular Biology

Handbook of Biochemistry and Molecular Biology: Lipids, Carbohydrates, Steroids

Handbook of Biochemistry and Molecular Biology : Nucleic Acids

Handbook of Biochemistry and Molecular Biology

From its early beginnings in the 1960s, the academic field of biochemistry of exercise has expanded beyond examining and describing metabolic responses to exercise and adaptations to training to include a wide understanding of molecular biology, cell signalling, interorgan communication, stem cell physiology, and a host of other cellular and biochemical mechanisms regulating acute responses and chronic adaptations related to exercise performance, human health/disease, nutrition, and cellular functioning. The Routledge Handbook on Biochemistry of Exercise is the first book to pull together the full depth and breadth of this subject and to update a rapidly expanding field of study with current issues and controversies and a look forward to future research directions. Bringing together many experts and leading scientists, the book emphasizes the current understanding of the underlying metabolic, cellular, genetic, and cell signalling mechanisms associated with physical activity, exercise, training, and athletic performance as they relate to, interact with, and regulate cellular and muscular adaptations and consequent effects on human health/disease, nutrition and weight control, and human performance. With more emphasis than ever on the need to be physically active and the role that being active plays in our overall health from a whole-body level down to the cell, this book makes an important contribution for scholars, medical practitioners, nutritionists, and coaches/trainers working in research and with a wide range of clients. This text is important reading for all students, scholars, and others with an interest in health, nutrition, and exercise/training in general.

Practical Handbook of Biochemistry and Molecular Biology

Handbook of Biochemistry and Molecular Biology: Proteins. 3 v

The Routledge Handbook on Biochemistry of Exercise

Methodologies and databases for biochemistry and molecular biology are included in this easy-to-use laboratory reference. Its logical presentation enables the reader to quickly and conveniently locate the information relevant to his or her needs. Featured are tables containing data on amino acids, proteins, nucleosides, nucleotides, and nucleic acids. Also featured are lipids and physical chemical data. Edited by a leading professional in the field, this compact, yet comprehensive bench manual serves as the definitive reference source for your laboratory.

Handbook of Biochemistry and Molecular Biology, Fourth Edition

Handbook of Biochemistry and Molecular Biology

Handbook of Biochemistry and Molecular Biology : Nucleic Acids

This best-selling undergraduate textbook provides an introduction to key experimental techniques from across the biosciences. It uniquely integrates the theories and practices that drive the fields of biology and medicine, comprehensively covering both the methods students will encounter in lab classes and those that underpin recent advances and discoveries. Its problem-solving approach continues with worked examples that set a challenge and then show students how the challenge is met. New to this edition are case studies, for example, that illustrate the relevance of the principles and techniques to the diagnosis and treatment of individual patients. Coverage is expanded to include a section on stem cells, chapters on immunochromatographic and spectroscopy techniques, and additional chapters on drug discovery and development, and clinical biochemistry. Experimental design and the statistical analysis of data are emphasised throughout to ensure students are equipped to successfully plan their own experiments and examine the results obtained.

Handbook of Biochemistry and Molecular Biology

Edited by renowned protein scientist and bestselling author Roger L. Lundblad, with the assistance of Fiona M. Macdonald of CRC Press, this fifth edition of the Handbook of Biochemistry and Molecular Biology gathers a wealth of information not easily obtained, including information not found on the web. Presented in an organized, concise, and simple-to-use format, this popular reference allows quick access to the most frequently used data. Covering a wide range of topics, from classical biochemistry to proteomics and genomics, it also details the properties of commonly used biochemicals, laboratory solvents, and reagents. An entirely new
section on Chemical Biology and Drug Design gathers data on amino acid antagonists, click chemistry, plus glossaries for computational drug design and medicinal chemistry. Each table is exhaustively referenced, giving the user a quick entry point into the primary literature. New tables for this edition: Chromatographic methods and solvents Protein spectroscopy Partial volumes of amino acids Matrix Metalloproteinases Gene Editing Click Chemistry

**Handbook of biochemistry and molecular biology**

**Handbook of Biochemistry and Molecular Biology: Nucleic acids. 2 v**

This book is an accessible resource offering practical information not found in more database-oriented resources. The first chapter lists acronyms with definitions, and a glossary of terms and subjects used in biochemistry, molecular biology, biotechnology, proteomics, genomics, and systems biology. There follows chapters on chemicals employed in biochemistry and molecular biology, complete with properties and structure drawings. Researchers will find this book to be a valuable tool that will save them time, as well as provide essential links to the roots of their science. Key selling features: Contains an extensive list of commonly used acronyms with definitions Offers a highly readable glossary for systems and techniques Provides comprehensive information for the validation of biotechnology assays and manufacturing processes Includes a list of Log P values, water solubility, and molecular weight for selected chemicals Gives a detailed listing of protease inhibitors and cocktails, as well as a list of buffers

**Handbook of Biochemistry**

Biochemical kinetics refers to the rate at which a reaction takes place. Kinetic mechanisms have played a major role in defining the metabolic pathways, the mechanistic action of enzymes, and even the processing of genetic material. The Handbook of Biochemical Kinetics provides the "underlying scaffolding" of logic for kinetic approaches to distinguish rival models or mechanisms. The handbook also comments on techniques and their likely limitations and pitfalls, as well as derivations of fundamental rate equations that characterize biochemical processes. Key Features * Over 750 pages devoted to theory and techniques for studying enzymic and metabolic processes * Over 1,500 definitions of kinetic and mechanistic terminology, with key references * Practical advice on experimental design of kinetic experiments * Extended step-by-step methods for deriving rate equations * Over 1,000 enzymes, complete with EC numbers, reactions catalyzed, and references to reviews and/or assay methods * Over 5,000 selected references to kinetic methods appearing in the Methods in Enzymology series * 72-page Wordfinder that allows the reader to search by keywords * Summaries of mechanistic studies on key enzymes and protein systems * Over 250 diagrams, figures, tables, and structures

**Handbook of Biochemistry and Molecular Biology**

**Molecular Biomethods Handbook**

**Hdbk Biochemistry SECT D Physical Chemical Data**