CRC Handbook of Biochemistry and Molecular Biology

Dry Chemistry

Dry chemistry has been accepted as an important technology in medical laboratories for many years. Many evaluations of this technology have been undertaken by reputable clinical laboratories, the results of which were excellent when compared with conventional wet chemistry analysis. This book contains a detailed overview of the current knowledge in the field of dry chemistry both in the physicians' office laboratories and large medical laboratories. The results from many evaluation studies are presented, as is data from interference studies which complete the descriptions of many dry chemistry methods. A detailed description of various commercially available dry chemistry systems such as Ektachem, Reflotron, Seralyzer, Cobas Ready, Drichem, Opus and Stratus are also included. This book effectively describes the current state-of-the-art technology and knowledge and succeeds in filling the gap in information in this important field of clinical chemistry science. Originally published as 'Trockenchemie' by Georg Thieme Verlag, Stuttgart, Dr. Sonntag has taken the opportunity of this translation to completely revise and update the contents of his book.

Hdbk Biochemistry SECT D Physical Chemical Data

Handbook of Epigenetics: The New Molecular and Medical Genetics, Second Edition, provides a comprehensive analysis of epigenetics, from basic biology, to clinical application. Epigenetics is considered by many to be the new genetics in that many biological phenomena are controlled, not through gene mutations, but rather through reversible and heritable epigenetic processes. These epigenetic processes range from DNA methylation to prions. The biological processes impacted by epigenetics are vast and encompass effects in lower organisms and humans that include tissue and organ regeneration, X-chromosome inactivation, stem cell differentiation, genomic imprinting, and aging. The first edition of this important work received excellent reviews; the second edition continues its comprehensive coverage adding more current research and new topics based on customer and reader reviews, including new discoveries, approved therapeutics, and clinical trials. From molecular mechanisms and epigenetic technology, to discoveries in human disease and clinical epigenetics, the nature and applications of the science is presented for those with interests ranging from the fundamental basis of epigenetics, to therapeutic interventions for epigenetic-based disorders. Timely and comprehensive collection of fully up-to-date reviews on epigenetics that are organized into one volume and written by leading figures in the field Covers the latest advances in many different areas of epigenetics, ranging from basic aspects, to technologies, to clinical medicine Written at a verbal and technical
Handbook of Biochemistry and Molecular Biology: Nucleic Acids

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.
Biochemistry & Molecular Biology of Plants is a major contribution to the plant sciences literature. The second edition updates the first edition with new material and reorganizes some chapters. It contains over 1,000 full-color illustrations and 500 photographs. The book is divided into five parts: 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 the 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: Proteins. 3 v

Cumulative Series Index for CRC Handbook of Biochemistry and Molecular Biology

Handbook of Biochemistry and Molecular Biology

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

Handbook of Biochemistry

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:
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Roger L. Lundblad is a native of San Francisco, California. He received his undergraduate education at Pacific Lutheran University and his PhD 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.

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