

Mammalian Cell Biotechnology in Protein Production

NEW!!

Editors: Hansjörg Hauser • Roland Wagner

1996. 24 x 17 cm. approx. 480 pages. With numerous figures.
Hardcover approx. DM 198,- / öS 1.465,- / sFr 190,- ISBN 3-11-013403-9

This book presents various approaches encompassing biological, biochemical and genetic aspects as well as recovery of the final end product by means of large scale production, with emphasis on fundamental explanations of the techniques and their practical success in protein production with mammalian cell cultures. The book therefore handles a broad spectrum of subjects relevant to protein production including virology, biochemistry, molecular genetics, cell biology, bioreactor technology, process simulation, validation, biophysics, hydrodynamics and legal aspects.

From the Contents

Preface • *Hauser*, Heterologous Expression of Genes in Mammalian Cells • *Schlokot*, Permanent Gene Expression in Mammalian Cells: Gene Transfer and Selection • *Sandig / Lieber / Strauss*, Vectors for Gene Transfer and Expression in Animal Cells • *Wurm*, Aspects of Gene Transfer and Gene Amplification in Recombinant Mammalian Cells • *Wirth*, Isolation of Recombinant Cell Clones Exhibiting High-Level Expression of the Introduced Gene • *Kaluza / Schäffner / Weidle*, Genetic Engineering of Antibodies and Derivatives from Mammalian Cells • *Onions*, Safety Evaluation of Products Derived from Mammalian Cell Lines • *Wagner*, Metabolic Control of Animal Cell Culture Processes • *Savage*, Glycosylation: A Post-Translational Modification • *Tokashiki / Yokohama*, Bioreactors Designed for Animal Cells • *Chattopadhyay / Garcia-Briones / Venkat / Chalmers*, Hydrodynamic Properties in Bioreactors • *Goergen / Marc / Engasser*, Kinetics and Simulation of Animal Cell Processes • *Scheper / Freitag / Srienc*, On-Line and Off-Line Process Analysis • *Jungbauer*, Principles of Product Extraction from Cell Culture • *Walter / Allgaier*, Validation of Downstream Processes • List of Contributors • Index

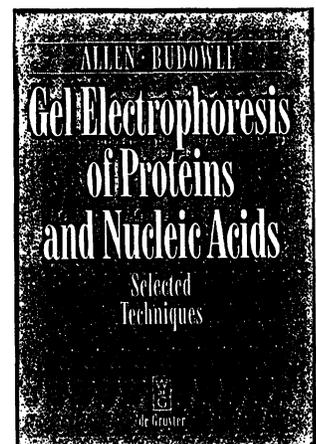
Robert C. Allen • Bruce Budowle Gel Electrophoresis of Proteins and Nucleic Acids Selected Techniques

1994. 24 x 17 cm. XVI, 352 pages. With 67 figures. DM 138,- / öS 1.021,- / sFr 133,-
ISBN 3-11-013896-4

In this handbook, emphasis has been placed on both the theory and practice of electrophoretic techniques. The previous rapid expansion of isoelectric focusing has given way to size determinations using SDS denaturing discontinuous buffer electrophoresis, while two-dimensional procedures continue much at their original pace. A major shift in emphasis is toward the field of molecular biology with an emphasis on DNA sequencing for the Human Genome Project and in the search for genetic markers in disease. The rapid rise in use of the polymerase chain reaction (PCR) that can amplify single copies of DNA has revived an interest in discontinuous buffer systems for resolution of PCR amplified products (AMP-FLPs). This in turn has kindled some renewed interest in discontinuous buffers for sequencing.

Prices are subject to change.

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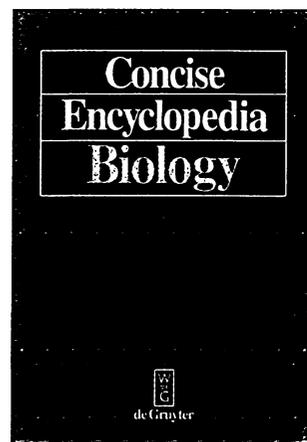
Concise Encyclopedia Biology

Translated and revised by Thomas A. Scott

1996. 24 x 17 cm. VI, 1.290 pages.
Hardcover DM 168,- / öS 1.243,- / sFr 161,-
ISBN 3-11-010661-2

More than 7.000 entries and 1.200 figures, formulas and tables.

An up-to-date reference work, covering all relevant fields, e.g. biochemistry, botany, ecology, ethology, genetics, molecular biology, paleontology, physiology and zoology. It also includes classical taxonomy, as well as descriptions of a wide variety of animal and plant taxa.



"It is now the most comprehensive one-volume encyclopedic dictionary covering biology.(...) This is a welcome new work that would be appropriate for high school, public, and academic libraries. It can be considered as the authority for the field of biology."

Booklist 1996

Concise Encyclopedia Biochemistry and Molecular Biology

Revised and expanded by E. Ian Mercer and Thomas A. Scott

Third edition 1996. 24 x 17 cm. approx. 700 pages.
Hardcover approx. DM 148,- / öS 1.095,- / sFr 143,- ISBN 3-11-014535-9

More than 4.500 entries and 1.000 figures, formulas and tables.

A comprehensive source of biochemical data, covering medical, microbial, plant and physical chemistry, natural products, molecular biology, molecular genetics, and biotechnology. Modern standard terminology and abbreviations are used throughout.

From the reviews of the second edition:

"For anyone teaching or in research, and seeking a rapid introduction to a new area, the ... up-to-date references are an ideal, quick route to the main papers and active research groups..."

Robin Hesketh, Trends in Biochemical Sciences

Concise Encyclopedia Chemistry

Translated and revised by Mary Eagleson

1994. 24 x 17 cm. VII, 1.203 pages.
Hardcover DM 148,- / öS 1.095,- / sFr 143,- ISBN 3-11-011451-8

More than 12.000 entries and 1.600 figures, formulas and tables.

An invaluable compilation of current knowledge in all fields of chemistry, including general chemistry, inorganic chemistry, organic chemistry, physical chemistry, technical chemistry and chemical engineering. The Encyclopedia follows IUPAC rules for the nomenclature of chemical compounds and applies the SI units throughout.

"This useful reasonably priced, ready-reference tool is recommended for all public, academic, and high school libraries. It is also a good desk reference for students and working chemists."

American Reference Books Annual, 1995

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Biologic Effects of Light 1995

**Biologic Effects
of Light 1995**

Editors
Holick · Jung

**Proceedings of a Symposium
Atlanta, USA • October 9-11, 1995**

Editors: Michael F. Holick / Ernst G. Jung

1996. 24 x 17 cm. XV, 523 pages. With 127 illustrations.
Hardcover DM 418,- / öS 3.261,- / sFr 396,-
ISBN 3-11-014899-4



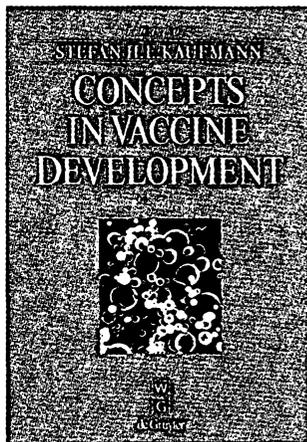
This book provides the reader with the most up-to-date information about the biopositive and bionegative effects of sunlight. Internationally recognized experts in the fields of photochemistry, photobiology, photoimmunology, photomedicine and dermatology present the important role of sunlight in promoting good bone health and preventing osteoporosis; the importance of sunlight and artificial lighting as a method to treat patients with seasonal affective disorder, eating disorders, attention disorders in shift workers and astronauts; the importance of sunscreen use for the prevention of skin cancer and the roles of sunlight and vitamin D in causing and preventing skin cancer, melanoma, breast and colon cancer.

From the Contents

Vitamin D, Sunlight and Bone Health • Biophysics/Biophotons • Sunlight and Skin: Photomedicine • Photodynamic Therapy • Sunlight and Melanoma • Sunlight, Vitamin D, Cancer • Circadian Rhythm and Light • Circadian Rhythm and Light Therapy • Light Protection/Sunscreens • Photoimmunology

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Concepts in Vaccine Development

Editor:

Stefan H. E. Kaufmann

1996. 24 x 17 cm. XXVII, 580 pages.

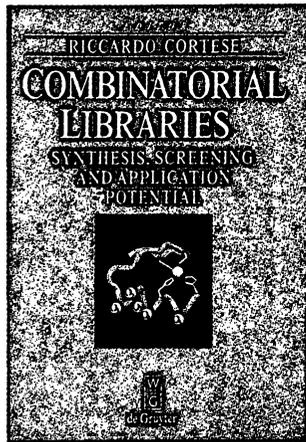
With 40 figures and 40 tables.

Hardcover.

DM 178,- / öS 1.317,- / sFr 171,-

ISBN 3-11-014815-3

The objective of this book is to provide the reader with a state of the art overview on modern vaccine design. Vaccination has proven most efficacious in the control of many infectious diseases. Still, numerous other infectious diseases cause major health problems which cannot be solved by currently available vaccination strategies. More recent success in basic research and biotechnology has paved the way for the development of a novel generation of vaccines. This book lays emphasis on new concepts and strategies in vaccinology and provides a comprehensive overview of all aspects of vaccinology from the bench to the field.



Combinatorial Libraries Synthesis, Screening and Application Potential

Editor: Riccardo Cortese

1996. 24 x 17 cm. XIV, 230 pages.

With 92 figures. Hardcover.

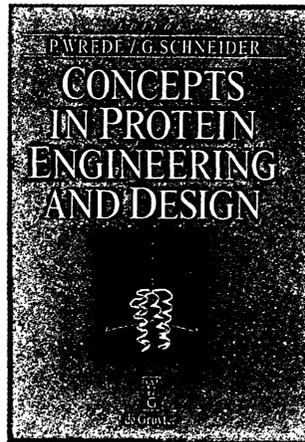
DM 138,- / öS 1.021,- / sFr 133,-

ISBN 3-11-014395-X

This book encompasses state of the art achievements in the field of combinatorial libraries, including antibody and peptide repertoires, in vitro evolution of nucleic acids and a variety of selection strategies based on genetic and/or biochemical manipulations. Advantages and disadvantages, as well as suggestions as to the most appropriate biotechnological niche of each technique are presented by scientists who are among the leaders in their respective area of research.

From the Contents

Synthetic Peptide Libraries • Nucleic Acid Libraries • Phage Display of Peptide Libraries • Phage Display of Protein Domains • Index



Concepts in Protein Engineering and Design An Introduction

Editors:

Paul Wrede • Gisbert Schneider

1994. 24 x 17 cm. XVIII, 378 pages.

With 108 figures and 15 tables. Hardcover.

DM 128,- / öS 947,- / sFr 124,-

ISBN 3-11-012975-2

A collection of easy-to-read introductions to selected topics of a challenging and rapidly expanding field of research. In addition to thorough descriptions of established biochemical and biophysical techniques presenting the state-of-the-art, several new approaches to rational designs of proteins are discussed. The book focuses on the present and future potential of nanoscale molecular objects, site-directed mutagenesis studies, catalytic antibodies, artificial neural networks, *de novo* protein design, and membrane protein engineering.

"Can a 378-page book provide a helpful introduction to current concepts for a scientist who contemplates engineering a new property into a protein? This book has convinced me that the answer is yes,..."

J. J. Holbrook, Protein Science

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