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Compendium of Biochemical Nomenclature and Related Documents

Published for the International Union of Biochemistry and Molecular Biology by Portland Press

Edited by C Liebecq

This is an essential reference text for all authors and editors in biochemistry and related disciplines. It contains all the current recommendations on nomenclature issued by the nomenclature committees of the International Union of Biochemistry. It also includes text from, and references to, other important nomenclature documents.

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Contents

General - Nomenclature of organic chemistry; stereochemistry; Nomenclature of organic chemistry: natural products and related compounds; Isotopically modified compounds and isotopically labelled compounds; Recommendations for the presentation of thermodynamic and related data in biology; Citation of bibliographic references in biochemical journals.

Amino acids, peptides and proteins - Nomenclature and symbolism for amino acids and peptides; Abbreviated nomenclature of synthetic polypeptides - Polymerized amino acids; Abbreviations and symbols for the description of the conformation of polypeptide chains; Nomenclature of peptide hormones; Nomenclature of glycoproteins, glycopeptides and peptidoglycans; Nomenclature of initiation, elongation and termination factors for translation in eukaryotes.

Enzymes - Nomenclature of multiple forms of enzymes; Symbolism and terminology in enzyme kinetics; Nomenclature for multienzymes.

Nucleotides, nucleic acids and protein synthesis - Abbreviations and symbols for nucleic acids, polynucleotides and their constituents; Abbreviations and symbols for the description of the conformations of polynucleotide chains; Nomenclature for incompletely specified bases in nucleic acid sequences; Nomenclature of initiation, elongation and termination factors for translation in eukaryotes.

Carbohydrates, etc. - Carbohydrate nomenclature; Nomenclature of cyclitols; Numbering of atoms in myo-inositol; Conformational nomenclature for five- and six-membered ring forms of monosaccharides and their derivatives; Nomenclature of unsaturated monosaccharides; Nomenclature of branched-chain monosaccharides; Abbreviated terminology of oligosaccharide chains; Polysaccharide nomenclature; Symbols for specifying the conformation of polysaccharide chains; Nomenclature of glycoproteins, glycopeptides and peptidoglycans.

Lipids, etc. - Nomenclature of lipids; Nomenclature of steroids; Nomenclature of quinones with isoprenoid side chains; Nomenclature of carotenoids and amendments; Nomenclature of tocopherols and related compounds; Nomenclature of vitamin D; Nomenclature of retinoids; Prenol nomenclature.

Miscellaneous - Nomenclature of phosphorus-containing compounds of biochemical importance; Nomenclature and symbols for folic acids and related compounds; Nomenclature for vitamins B-6 and related compounds; Nomenclature of corrinoids; Nomenclature of tetrapyrroles. Excerpts from the newsletters of the nomenclature committees of the International Union of Biochemistry (ICBN and NC-IUB); Journals and other documents of biochemical nomenclature.

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The Archaebacteria: Biochemistry and Biotechnology

Edited by M J Danson, D W Hough and G G Lunt

The tools of biotechnology are often living organisms and cell constituents which have to survive extremely challenging environments. Archaebacteria may provide some of the answers to many of the problems of using biotechnological techniques under industrial conditions.

The Biochemical Society Symposium drew together acknowledged international experts on archaeabacteria. They explored the biochemistry and molecular biology of these unusual organisms, and then examined how we might use these cells and their uniquely stable constituents to meet the demands of industry's biotechnological future.

The book is divided into five sections:

* The archaeabacteria
* Biochemical features of archaeabacteria
* Molecular biological features of archaeabacteria
* Proteins in extreme environments
* Biotechnological potential of the archaeabacteria

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What are the archaeabacteria and why are they important? W F Doolittle
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Bioenergetics and autotrophic carbon metabolism of chemolithotrophic archaeabacteria G Fuchs et al
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Progress in developing the genetics of the halobacteria W F Doolittle et al
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