BOOK REVIEW

Biochemistry

by

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Is is not an easy task to write a book of biochemistry neither for trained biologists working at various specialised fields nor for undergraduates who should receive a comprehensive, logic and, as far as possible, comprised text to get acquainted with chemical structures, processes and interactions bounding to living systems and life processes. The present book aimed to meet the requirements of students in obtaining basic knowledge in this subject and also of teachers, who should transmit general principles and all important particular information in a comparatively short time scale.

The more than five hundred pages text is divided into four main Parts, containing altogether 19 well defined, specific Chapters. The setting up and the logic of the book differ from the usual biochemical textbooks, namely, in having an introductory part: Foundation of Biochemistry, dealing with origin of life, with cell types and their general structures, with water as solvent of life and with noncovalent interactions. The two main parts are on Biomolecules and on Metabolism. Part Biomolecules includes chapters on amino acids and peptides, proteins, enzymes, carbohydrates, lipids and membranes as well as nucleic acids. Part Metabolism deals with general principles of synthesis and degradation of biomolecules, with bioenergetics, with the citric acid cycle, with electron transport and oxidative phosphorylation, with the photosynthesis, further on with major pathways of carbohydrate, lipid, amino acid and nucleotide metabolism. The fourth part called Transfer of Genetic Information describes basic concepts of molecular biology and particularly molecular genetics, including the synthesis of DNA, RNA and proteins.

Each Chapter includes a great number of tables, illustrations, diagrams and figures, important in understanding difficult and complicated mechanisms and processes. Selected reading list, review questions and solution manual supplements the basic text, and a detailed, 20 pages long index help the handling of the book for readers who wish to have rapid information on one or another biochemical expression or process.

The book is excellent in its style, well understandable if the reader has the necessary knowledge in inorganic and organic chemistry. It can be recommended first of all for department staffs teaching biochemistry and for students, but also for biologists in general, who wish to refresh or complete their knowledge by consulting a contemporary overview on present state in biological chemistry.

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