Stenesh, J.: **Biochemistry**. – Plenum Press, New York – London 1998. ISNB 0-306-45732-6. Pp. 568, USD 95.00 (hardbound), USD 114.00 (outside the USA and Canada).

To write a good textbook for such a wide subject as biochemistry represents a difficult task for the author, especially when the text is intended for an introductory course in biochemistry. Author's main goal was to provide students with a basic body of biochemical knowledge and present this material in a reasonably balanced form without excessive details. This aim has been achieved and a rather slim textbook (only 568 pages) covers all the main topics.

Following an introduction, the book is organized into four parts along traditional lines such as the origin of life, the living cell, water, and noncovalent interactions in Part I, Foundation of Biochemistry. Part II, Biomolecules, describes structures and properties of various classes of molecules. In Part III, Metabolism, essential reactions, interconversions, and pathways of biomolecules are surveyed. The last section of the book, Part IV, Transfer of Genetic Information, covers replication, transcription, and translation. Appendices refresh knowledge on acid-base calculations, principles of organic chemistry, biochemical methods, and oxidation-reduction reactions. Each chapter contains a summary and a list of selected references. A section consisting of three types of review questions, and a large number of problems is also included. All topics are well illustrated by numerous figures and schemes. Correct answers to problems and a detailed index is available at the end of the book.

Photosynthesis is covered by a separate chapter (Chapter 15) in the Part III and for people interested in this topic this chapter is rather disappointing. The chapter starts with a brief historical survey followed by an explanation of basic processes of light absorption. Next part is devoted to description of photosynthetic machinery, *i.e.*, plastids, photosynthetic pigments, and photosystems. In this part, I have missed any mention of light-harvesting complexes. The description of stromal and granal thylakoid membranes in terms of stroma lamelae and thylakoid discs gives an impression that both are made from completely different entities. 'Light reactions' including Z-scheme and calculation of efficiences of the reactions are described in the following part. Bacterial photosynthesis is briefly mentioned in the part devoted to cyclic electron flow. The part named 'Dark reactions' deals with enzymes and reactions of Calvin cycle. According to my opinion, the main enzyme of CO_2 fixation should be introduced by the whole name, *i.e.*, ribulose-1,5-bisphosphate carboxylase/oxygenase from the very beginning (*i.e.*, p. 392) and not after a few more pages (p. 397). In the part dealing with control of the cycle by light activation or inactivation, photoinhibition is not mentioned. Photorespiration is considered only as a wastful process without any known metabolic function, though its photoprotective role has been investigated for many years. In the last part of the chapter some attention is devoted to C4 photosynthesis, while CAM metabolism is not mentioned at all. The chapter also contains selected readings, reviewing questions, and 26 problem questions. However, the "correct" answers, which can be found at p. 543, are sometimes questionable, *e.g.*, the effect of UV radiation (problem nr. 15.5.) or photorespiration (problem nr. 15.18.).

This book is useful mainly for undergraduate students who need to be introduced into such a complex science as biochemistry is.

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