

Imma Ponte

**C.K. Mathews, K.E. Van Holde, K.G. Ahern (eds)
Biochemistry, 3rd edn**

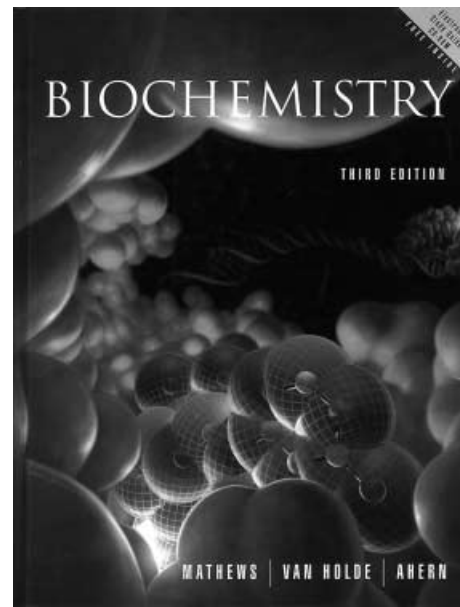
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C.K. Mathews and K. E. van Holde— the authors of the first two editions— have recruited a third author for this third edition. As with many other changes in the book, the enrollment of K.G. Ahern, an expert in bioinformatics and the Internet from Oregon State University, is a wise choice. Along with the incorporation of corrections and updated information, the book has undergone a strategic change aimed at fulfilling the needs of biochemistry students in the age of the Information Society. Taking into account that the body of knowledge in biochemistry is much greater than what can be printed in about 1200 pages, the authors decided to provide ways to transform a general biochemistry manual into a search instrument that can also be used in the future. Besides producing a readable and usable text, they have created an open window to browse the changing world of the science of biochemistry.

Thus, the novelty of this third edition is the Electronic Study Guide, a useful tool for students, packed into a CD-ROM that accompanies the book. The first of the four sections of the Guide is the Outline, which contains links to other related information on the Web and has the same chapter structure as the textbook. The Concepts section summarizes the essential ideas that have to be understood in each chapter. The Terminology section lists important terms and definitions used in each chapter. The last section, the Quizzing section, helps students to test their knowledge of biochemistry with questions about biochemical structures, enzymes, reactions, terms, and so on.

To keep students and readers aware of updates of relevant information, the editors had the smart idea of creating a Web page that will be continuously updated throughout the lifetime of the book. The Web address <http://www.awonline.com/mathews> provides access to the figures in the the textbook and information such as relevant hyperlinks.



In general, the organization of the chapters follows the same scheme as in the previous edition. [See the review of the Spanish version of the 2nd edition in Int Microbiol (2:282, 1999)]. Structure and mechanism are presented first, followed by intermediary metabolism, and biological information processing at the end. Very few changes have been made regarding chapter contents, but many chapters have been updated and amplified because of new discoveries. The Methods in biochemistry (the Tools sections) section has also been updated and protocols involving new technologies have been added, for example, structural aspects of oxidative phosphorylation showing the rotation of component F1 of the ATP synthase (Chap. 15) and scanning confocal microscopy (Chap. 1).

Additional resource materials for this text are available and are very helpful, especially for teachers. They include the Science Digital Library for Biochemistry (CD-ROM) for Power Point presentations; a full set of

transparency acetates; and the Complete Solutions Manual, which includes the solutions to the problems and questions prepared for each chapter.

This third edition combines an excellent textbook for general biochemistry students from any specialty, with the novelty of a new concept of the textbook in the age of the Information Society. Extra high-quality images in the figures greatly aid in understanding many processes or

structures that are difficult to explain only with words. The book not only offers guidance during the course itself but will also help the student to continue to get the information about biochemistry that he or she needs. Whether this mixture of on-line and off-line educational material will be a success, we do not know. But one wonders whether this will be the last time we have seen *Biochemistry* such as it is now in this paper format.