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BOOK REVIEW

HOPPE, W., LOHMANN, W., MARKL, H., ZIEGLER, H. (ed.): *BIOPHYSICS*. — Springer Verlag, Berlin—Heidelberg—New York—Tokyo 1983. 940 pp. Cloth DM 168,—; approx. US \$ 65.20.

The first English edition of *Biophysics* based on the second German edition has been now offered to a wider, more international audience. The editors of this volume have chosen for such interdisciplinary field as biophysics the form of a multi-author book. If the book consists of a collection of articles by experts in each speciality, there is a good chance that the contributions are up to date and at the same time present the essential points in each special field. This idea has been amply confirmed by this book.

It is impossible to do biophysics without having a certain background knowledge in biology, physics, physical chemistry, chemistry and biochemistry. It is useful and less time-consuming to present a selection of supplementary knowledge in concentrated form, together with the subject matter specific to biophysics. The reader will thus find in this book introductions to such subjects as the structure and functions of the cell, the chemical structure of biogenic macromolecules and even theoretical chemistry. The comprehensive publication consists of 17 chapters which deal with different biophysical problems such as the structure of cell, the chemical structure and structure determination of biologically important macromolecules, molecular interactions between biomolecules and mechanism of energy transfer. Other chapters inform on a subject of radiation biophysics and isotope methods. Several chapters are devoted to enzymes, biological function of nucleic acid, photobiophysics and neurobiophysics. Special attention is given to the subject of biomembranes. Cybernetics in biology, a field which is just developing, is also noticed. The chapter dealing with the evolution summarizes current ideas on this topic.

The description of methods takes up a large portion of this book. It has been attempted to acquaint the reader with the methods in some detail. The book presents manifold aspects of biophysics and the perspective of their many interconnections in a great depth. The publication is useful not only to those who seek an introductory overview of biophysical problems and research results, but also to experienced scientists, who wish to obtain a glimpse of the state of research in biophysical problems which lie outside their own immediate field.

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