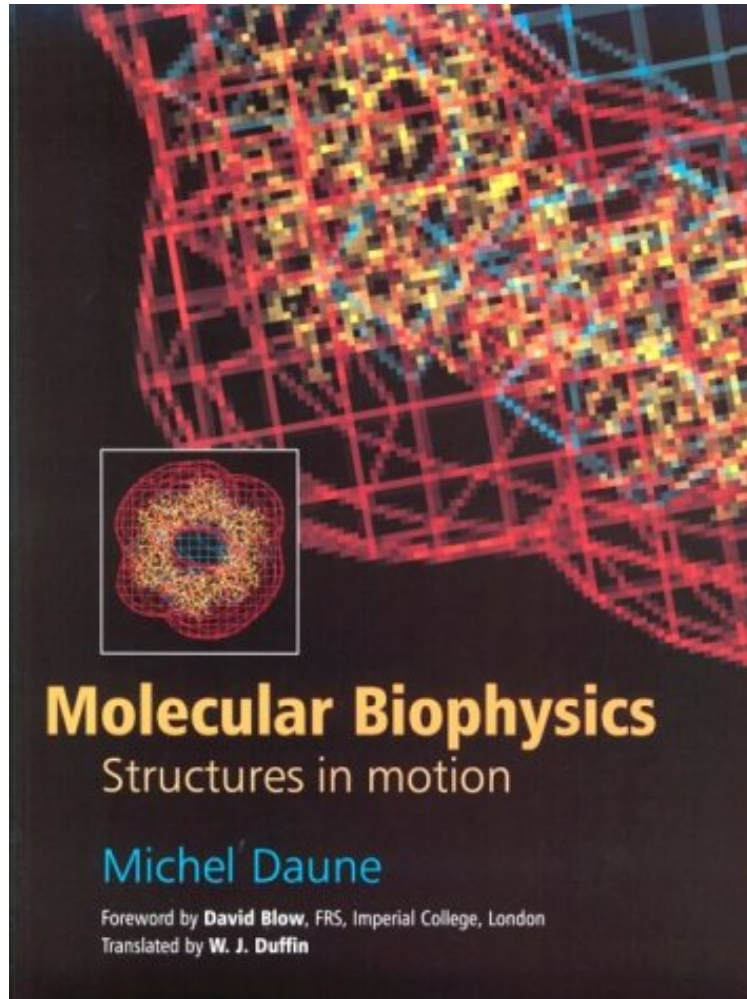


# Molecular Biophysics: Structures in Motion

*Michel Daune*

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**Michel Daune : Molecular Biophysics: Structures in Motion** before purchasing it in order to gage whether or not it would be worth my time, and all praised Molecular Biophysics: Structures in Motion:

4 of 4 people found the following review helpful. Strictly MolecularBy Kenneth L PilgreenI find this book useful from the perspective of the title of the review. It is not a general biophysics book. It even lacks to a degree in the above field, e.g., a general treatment of the biophysics of electrophoresis or centrifugation; these are very important topics that often receive scant coverage and I usually give my own coverage in the 1st general (algebra/trig) College Physics course based on treatment from my original Biophysics notes from graduate school and Barrow's Physical Chemistry text's excellent coverage (centrifugation). This would be quite appropriate in such a book which is heavily weighted toward molecular topics. I find this book quite complementary with Glaser's book "Biophysics", which is an excellent translation from the original German (Deutch) plus some new material, which also has only black and white

illustrations (this is not a drawback). I do not have the privilege of teaching a course in Biophysics, but do use materials from these books in teaching General Physics to Pre-Professional and Biology Majors as well as my Special Topics Course in Neurophysics with the latter having no suitable text for its particular audience. I do, however, recommend this text to those with a good thermodynamics (chemical physics or physical chemistry) background and interest in pursuing study of the molecular biophysics of nucleic acids, in particular. Hopefully, future editions will have treatments of more proteins such as the various collagens (I specifically have looked for these) and keratin, among others.

9 of 9 people found the following review helpful. **BIOPOLYMERS A' LA CARTE** By Pichierri Fabio

This is a very comprehensive book (about 500 pages!) dealing with the molecular physics of biopolymers. It is divided in five parts, namely (I.) Conformation of biopolymers, (II.) Dynamics of biopolymers, (III.) Hydration of biopolymers, (IV.) Biopolymers as polyelectrolytes, and (V.) Association between molecules, along with a 20-pages mathematical appendix. At the end of each part you will find a 1-page conclusion and 1-2 pages of references and material for further reading. Each referenced paper is provided with its full, original title, thereby simplifying the selection process. Important topics and/or proofs of mathematical formulae and models are given in dark boxes throughout the book. This facilitates both reading and learning. A note about figures. Graphs are clear and look good but the same cannot be said about most of the figures displaying molecular structures. This, perhaps, is due to the fact that several figures have been reprinted from the original papers. Also, the book does not contain colored figures. This, in general, is not a big problem except when a calculated property such as the electrostatic potential is being depicted (see, for example Fig. 19.7 at p. 370). For this reason I rated this book with four stars only. In summary, Professor Daune has done a good job and his book could be well used in teaching an advanced course of molecular biophysics, perhaps complemented with Dr. Glaser's "Biophysics".

1 of 3 people found the following review helpful. It is a good book for a physicist to enter biophysics field.

By A Customer

The book almost covers all aspects in biophysics field. The description in text is very physical, and it is very suitable for researchers with physical background to enter biophysics field. Due to its wide covering, the content of the book is not so valuable for an advanced biophysicist.

Offering a comprehensive introduction to the molecular physics of biological systems, this book seeks to explain how the laws and concepts of physics apply to the living world at the molecular and subcellular level, with an emphasis on electrical and dynamical behavior. It is organized into five parts: conformation of biopolymers; dynamics of biopolymers; hydration of biopolymers; biopolymers as polyelectrolytes; and association between molecules.

Language Notes  
Text: English (translation) Original Language: French  
About the Author  
Michel Daune is Honorary Professor, University of Strasbourg, France, and was formerly Director of the Centre for Molecular Biophysics, Orleans