

Molecular Simulations and Biomembranes: From Biophysics

to Function provides a much needed update on the current methods and applications as well as highlighting recent advances in the way computer simulation can be applied to the field of membranes and membrane proteins. The objectives are to show how simulation methods can provide an important contribution to the understanding of these systems. The scope of the book is such that it covers simulation of membranes and membrane proteins, but also covers the more recent methodological developments such as coarse-grained molecular dynamics and multiscale approaches in systems biology. Applications embrace a range of biological processes including ion channel and transport proteins.

The book is wide ranging with broad coverage and a strong coupling to experimental results wherever possible, including colour illustrations to highlight particular aspects of molecular structure. With an internationally respected list of authors, its publication is timely and it will prove indispensable to a large scientific readership.

Front cover: Image of a nicotinic acetylcholine receptor embedded in a lipid bilayer. Image courtesy of Ranjit Vijayan.

RSC Biomolecular Sciences

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