

Preface

The first English edition of the present book was published in 2005 and although still in use around the world the text could be much improved by a timely update on several counts. Since 2005 the field of membrane biophysics has expanded tremendously and moved center stage in the study of biological membranes, not least due to a tremendous development in the experimental techniques that can be applied to membranes. It was deemed useful to prepare a revised edition of the book by incorporating some of the advances in the field over the last decade. In addition, the book now includes more tutorial material on the biochemistry of lipids and the principles of lipid self-assembly.

The second edition greatly owes its materialization to the efforts of one of the authors (LAB), who undertook a revision of the first edition (single-authored by OGM) for preparation of a Spanish edition that was published in 2014. The present second English edition is to a great extent a revised version of the Spanish edition.

The research work underlying the picture of fats, lipids, and membranes advocated in the present book derives from many different scientists and students in several laboratories across the world. The specific examples and data presented are, however, biased toward the work carried out by the authors and their collaborators. Therefore, the book should not be considered an authoritative monograph but more a personal perspective on a diverse and rapidly expanding field of science.

The book is provided with a Bibliography containing a selected list of references to books, review papers, and research articles accounting for most of the factual statements made in the book. These references to the literature have been selected according to a minimal principle. The rule has been adopted that references are mostly made to recent publications and not necessarily to the original work. From the references given, the interested reader should be able to track down the original literature. The reader is furthermore referred to the list of specialized books and review papers for a more comprehensive list of references. We apologize in advance to those authors and colleagues who may feel that their original work should have been referenced and discussed in more detail.

The authors have over the years benefited from stimulating interaction and fruitful collaboration with a large number of colleagues and students, in particular from the Center for Biomembrane Physics (MEMPHYS) at the University of Southern Denmark.

The authors have drawn on the help from a number of colleagues and the permission to use some of their graphic material for preparing many of the figures of this book. A list of the sources for the figures is provided at the end.

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Lipids in a Membrane Biophysics Perspective

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