Bacterial Membranes: Structural and Molecular Biology

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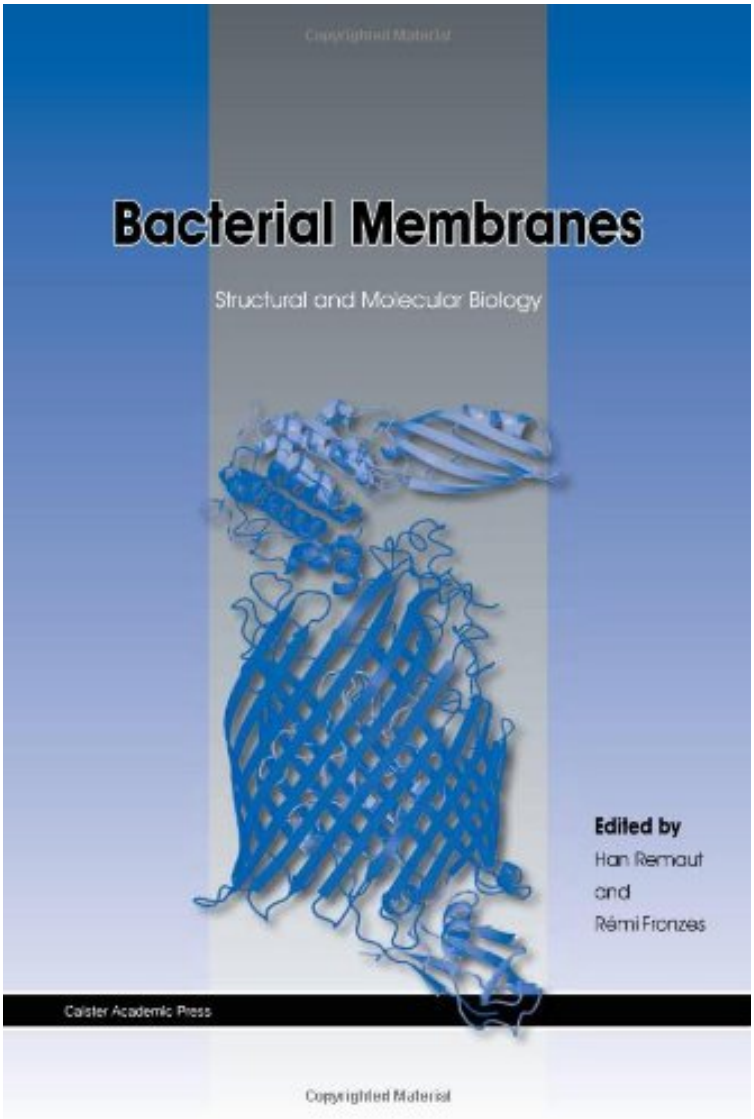

#5969208 in Books 2014-01-01Original language:EnglishPDF # 1 9.30 x 1.30 x 6.50l, .0 #File Name: 1908230274528 pages | File size: 68.Mb

From Caister Academic Press : Bacterial Membranes: Structural and Molecular Biology before purchasing it in order to gage whether or not it would be worth my time, and all praised Bacterial Membranes: Structural and Molecular Biology:

Membranes are pivotal components of life, acting as formidable insulators that demarcate a living cell; generate

energy in the form of ion gradients; transport ions, proteins, nucleic acids, nutrients, and metabolites; and provide transduction systems to sense the environment and to communicate with other cells. Membranes also provide shape and structure to cells and are important in cell motility. In addition, they fulfill a scaffolding function for proteins and organelles that interact with the extracellular environment. Written by specialists in the field, this book provides a comprehensive overview of the structural and molecular biology of cellular processes that occur at or near bacterial membranes. The book presents and discusses recent progress on the function and involvement of membranes in bacterial physiology, enabling a greater understanding of the molecular details of the cell envelope, its biogenesis, and its function. The topics covered include: cell wall growth * shape and division * the outer membrane of Gram-negative bacteria * outer membrane protein biosynthesis * bacterial lipoproteins * mycobacteria * lipid composition * ABC transporters * transport across the outer membrane * drug passage across membranes * bacterial membrane proteins * secretion systems * signal transduction * signalling mechanisms * bacterial membranes in adhesion and pathogenesis * membranes as a drug target. This cutting-edge text will provide a valuable resource for all those working in this field and is recommended for all microbiology libraries.