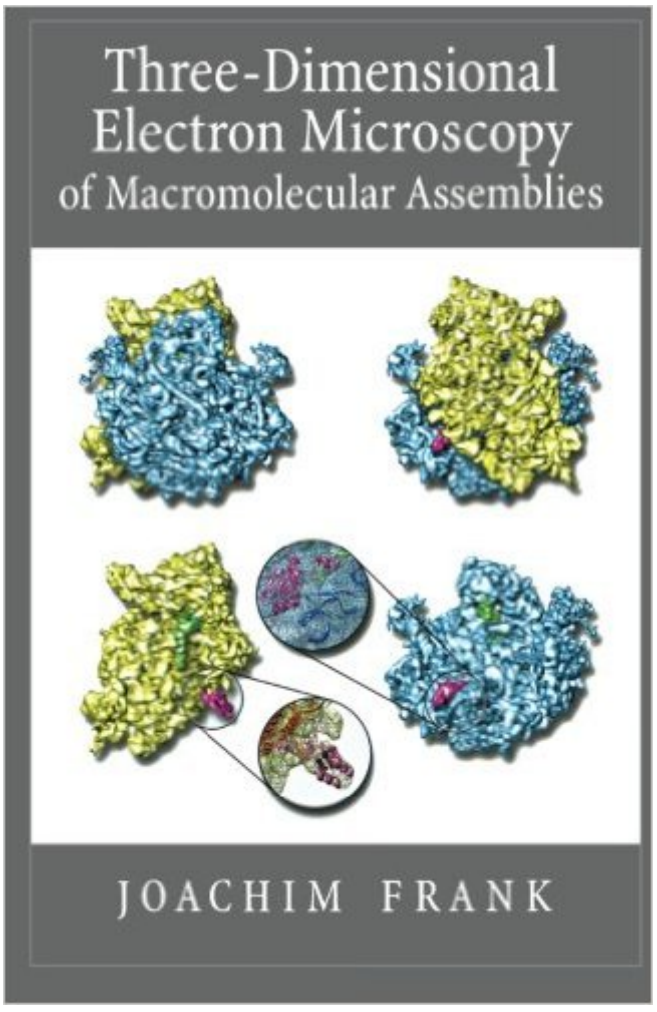
Three-Dimensional Electron Microscopy Of Macromolecular Assemblies: Visualization Of Biological Molecules In Their Native State



Synopsis

Cryoelectron microscopy of biological molecules is among the hottest growth areas in biophysics and structural biology at present, and Frank is arguably the most distinguished practitioner of this art. CryoEM is likely over the next few years to take over much of the structural approaches currently requiring X-ray crystallography, because one can now get good and finely detailed images of single molecules down to as little as 200,000 MW, covering a substantial share of the molecules of greatest biomedical research interest. This book, the successor to an earlier work published in 1996 with Academic Press, is a natural companion work to our forthcoming book on electron crystallography by Robert Glaeser, with contributions by six others, including Frank. A growing number of workers will employ CryoEM for structural studies in their own research, and a large proportion of biomedical researchers will have a growing interest in understanding what the capabilities and limits of this approach are.

Book Information

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Customer Reviews

This concise and easy to read book is essentialy a crash course in single particle reconstruction by electron microscopy. It isn’t exactly a how-to manual, more an overview of how the whole process works. Thus, it is useful not only to someone who wants to learn how to do this, but also to those who might be interested in deciding if this technique would be useful to them. And actually, the whole topic is sufficiently cool that I would recommend the book even to people who know they will never use this technique, just because its fun to read about it. The book is clearly written and

doesn't assume alot of prior knowledge. A basic undergrad education in math would be enough to handle the equations.

Three-Dimensional Electron Microscopy of Macromolecular Assemblies: Visualization of Biological Molecules in Their Native State Scanning Electron Microscopy, X-Ray Microanalysis, and Analytical Electron Microscopy: A Laboratory Workbook Conformational Theory of Large Molecules: The Rotational Isomeric State Model in Macromolecular Systems Electron Microprobe Analysis and Scanning Electron Microscopy in Geology Biological Electron Microscopy: Theory, Techniques, and Troubleshooting A Manual of Applied Techniques for Biological Electron Microscopy Three-Dimensional Structure of Wood: A Scanning Electron Microscope Study (Syracuse Wood Science) Flourescence Microscopy of Living Cells in Culture, Part A, Volume 29: Fluorescent Analogs, Labeling Cells, and Basic Microscopy (Methods in Cell Biology, Vol) (Vol 29) Role Microscopy In Semiconductor Failure Analysis (Royal Microscopical Society Microscopy Handbooks) Transmission Electron Microscopy: Diffraction, Imaging, and Spectrometry Transmission Electron Microscopy: A Textbook for Materials Science Scanning and Transmission Electron Microscopy: An Introduction Principles and Practice of Variable Pressure: Environmental Scanning Electron Microscopy (VP-ESEM) Electron Microscopy: Principles and Techniques for Biologists by Bozzola, J.J. 2nd Revised edition (1998) Electron Microscopy and Analysis, Third Edition Phenology and Reproductive Aspect of Cannabis Sativa L: Scanning Electron Microscopy of pollen grains, trichomes and pollen physiology in different medium Scanning Electron Microscopy Electron Microscopy Transmission Electron Microscopy and Diffractometry of Materials Electron Microscopy of Shale Hydrocarbon Reservoirs - AAPG Memoir 102