

"This book provides clear step-by-step protocols to understand basic molecular biology. I really like the explanations for why experiments fail!"

— **David Irwin**, Professor of Laboratory Medicine and Pathobiology, University of Toronto

"The textbook and laboratory guide set will soon become a favorite of instructors and students alike."

— **Jay Tang**, Professor of Physics, Brown University

"Dr. Nadeau's textbook is a hugely useful resource for anybody performing biophysical experiments. It is also of practical importance to theoretical and computational biophysicists who want to be informed about the methods available to test their predictions."

— **Jack A. Tuszynski**, Allard Research Chair, Department of Oncology, and Professor of Physics, University of Alberta

"A valuable guide for students interested in this interdisciplinary area of research as well as a useful reference for experts in the field."

— **Françisco M. Raymo**, Professor of Chemistry, University of Miami

Introduction to Experimental Biophysics - A Laboratory Guide presents wet lab methods for courses in biophysics or molecular biology. A companion to the author's highly praised *An Introduction to Experimental Biophysics: Biological Methods for Physical Scientists*, this manual provides practical guidance on how to use a variety of techniques in biological experiments as well as on how to prepare the experiments.

Tested in a pedagogical setting, the experiments follow a logical progression beginning with a DNA construct. The book starts with the basics of molecular cloning: amplifying and purifying plasmid, plasmid mapping, and using restriction enzymes. Later experiments deal with more advanced, emerging techniques, such as the synthesis and characterization of quantum dots and gold nanoparticles, protein crystallization, and spectroscopic techniques.



CRC Press

Taylor & Francis Group
an informa business

www.crcpress.com

6000 Broken Sound Parkway, NW
Suite 300, Boca Raton, FL 33487
711 Third Avenue
New York, NY 10017
2 Park Square, Milton Park
Abingdon, Oxon OX14 4RN, UK

K15480

ISBN: 978-1-4665-5765-9



9 781466 557659