

INTRODUCTORY EXPERIMENTS ON BIOMOLECULES AND THEIR INTERACTIONS

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Introductory Experiments on Biomolecules and their Interactions immerses students in hands-on lab experiments to instill concrete experiences on how to work with proteins, nucleic acids, carbohydrates and lipids, while demonstrating how they behave with each other. Beginning with the essentials and basic techniques, the experiments become gradually more complex and move toward reactions and interactions between these molecules, as the young investigator grows in experience and gains in confidence.

To further enhance the educational experience, this book parallels the lecture using a standard biochemistry undergraduate text. Meanwhile, the manual is designed to give students opportunities to demonstrate and prove the knowledge and theories they learned from class by their own hands.

Key Features

- Contains problem sets, calculations, and references for each lab
- Includes instructions on how to maintain a lab notebook and write a formal lab report
- Provides hands-on engagement with the 4 major types of biomolecules and "real-life and better applied" examples of molecular interactions
- Features quantitative analysis of RNA degradation by RNase

Dr. Rob DeLong is a faculty member at the College of Veterinary Medicine at Kansas State University, in their Nanotechnology Innovation Center (NICKS). He attended SUNY Buffalo and the University of Rochester for his bachelors and masters degrees, completing his PhD at Johns Hopkins University in biochemistry and biophysics, and he later taught biochemistry and biotechnology at Missouri State University.

Dr. Qiongqiong Zhou is an Assistant Professor at Missouri State University, where she has tested the labs in this book while working directly with students in a laboratory setting. She completed her PhD at the University of Southern California, and was a Research Fellow at Johns Hopkins University before taking on her current position.



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