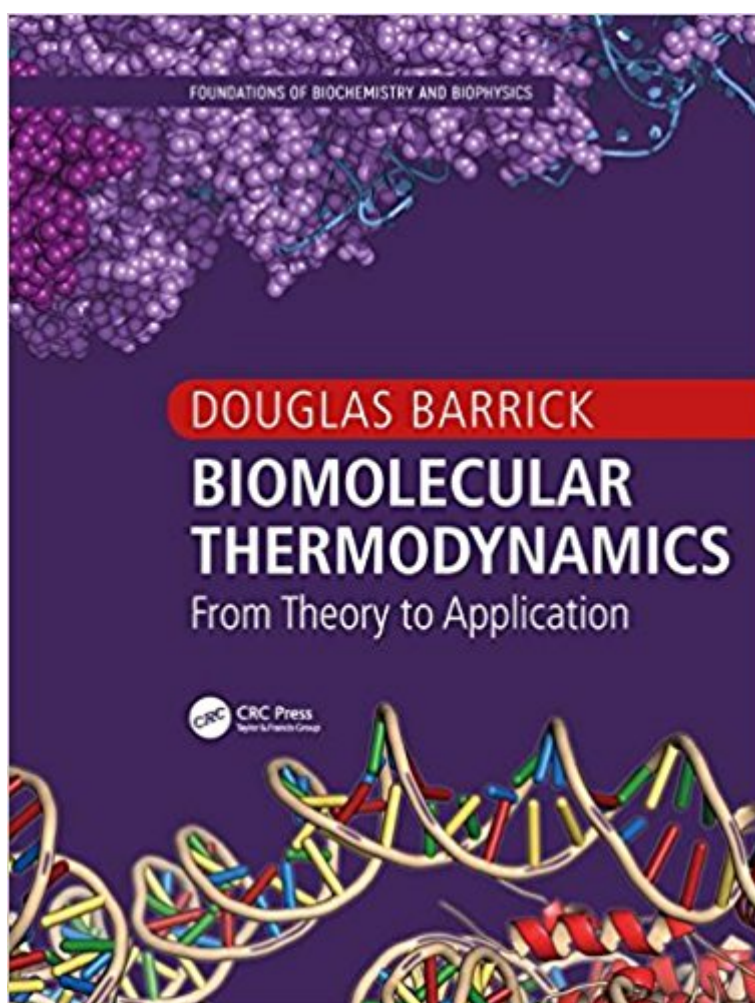


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Biomolecular Thermodynamics: From Theory To Application (Foundations Of Biochemistry And Biophysics)



Synopsis

This book introduces the concepts and practical tools necessary to understand the behavior of biological macromolecules at a quantitative level. It begins by describing biochemical phenomena using principles of classical and statistical thermodynamics. Unlike other books, this text goes beyond theory to explain in detail how the equations are applied to the analysis of experimental measurements. This emphasis on real-world applications is continued throughout and is a major feature of the book.

Book Information

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biologically-relevant systems along with a practical focus. It starts by bringing students up to speed on probability theory, multi-variate calculus and data fitting, the necessary tools for tackling the advanced topics covered in the remaining dozen chapters and for conducting rigorous interdisciplinary researchâthe ample problems and tutorials throughout are much appreciated."

âTobin R. Sosnick, Professor and Chair, Dept of Biochemistry and Molecular Biology, University of Chicago

Douglas E. Barrick is a professor in the Department of Biophysics at Johns Hopkins University. He earned a Ph.D. in biochemistry from Stanford University (1993) and Ph.D. in biophysics and structural biology from the University of Oregon (1996). He has been honored as recipient of the Beckman Young Investigator award, the Helen Hay Whitney Postdoctoral fellowship, and Howard Hughes Medical Institute Predoctoral Fellowship. He has been an editorial board member of the journals Protein Science and Biophysical Journal, and has been an organizer of the Gibbs Conference on Biothermodynamics. Research in his lab focuses on the study of protein evolution, folding, and assembly.

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