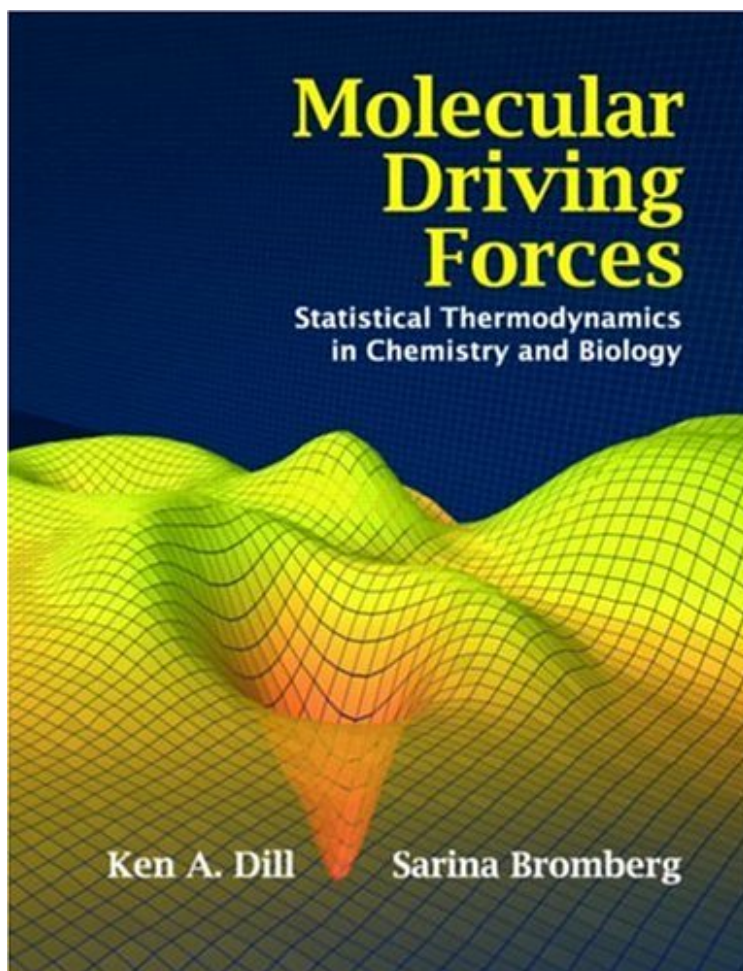


Molecular Driving Forces: Statistical Thermodynamics in Chemistry Biology

Ken A. Dill, Sarina Bromberg
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Ken A. Dill, Sarina Bromberg : Molecular Driving Forces: Statistical Thermodynamics in Chemistry Biology before purchasing it in order to gage whether or not it would be worth my time, and all praised Molecular Driving Forces: Statistical Thermodynamics in Chemistry Biology:

0 of 0 people found the following review helpful. ExcellentBy Joe JordanWhen I picked up this book, I was expecting a book on stat mech. This book is not so much a treatment of stat mech. as a very well put together course in physical chemistry. It covers all of the basics from thermodynamics to solutions of electrolytes to polymer chemistry. It does all of this in a very approachable manner that gives the reader a thorough understanding without too much gory detail. Also, the terms in the equations are generally well explained which is a nice touch for an introductory text such as this given that too many books either simply let the equations stand for themselves or define a variable once then reference

it hundreds of pages later without reintroducing it. This is an excellent book for self study and leaves a good foundation for readers to move on to more advanced stat mech. books such as those by Pathria, Statistical Mechanics, or Hill, An Introduction to Statistical Thermodynamics (Dover Books on Physics). 0 of 0 people found the following review helpful. The best introductory book on statistical physics (especially for biology) By Omega This book is a triumph of technical writing. Ken Dill possesses an extraordinary ability to distill complex technical concepts down to the cogent bits necessary to understand the physics of the situation. The maxim, "make it as simple as possible, but not simpler" definitely applies here. The only major challenge with this book is that a reader may come away with a notion of inflated comprehension. This is not a fault...just a byproduct of the big contrast between the clarity of the Dill (and Bromberg) text and the other, technically obfuscated, textbooks and articles in the field. Easily the best (introductory) textbook on statistical physics that I have encountered, and the only one that I can heartily recommend to a student or non-specialist. 5 of 5 people found the following review helpful. Dill isn't just for Pickles By N00b_Kendoist I used this excellent book by Ken Dill for my stat mech class along with Chandler. Dill eases the student through the sometimes painful world of stat mech. The many examples and pictures help the understanding of material. Also, derivations are shown in baby steps so that math and physics deprived students like me can handle the material. Chandler is more eloquent but for a student unfamiliar with the material, it's way above my head at times. The two books are very complementary.

Molecular Driving Forces is an introductory statistical thermodynamics text that describes the principles and forces that drive chemical and biological processes. It shows how the complex behaviors of molecules can result from a few simple physical processes, and a central theme is how simple models can give surprisingly accurate insights into the workings of the molecular world. Written in a clear and reader-friendly style, the book gives an excellent introduction to the subject for novices. It should be useful to those who want to develop their understanding of this important field, seeing how physical principles can be applied to the study of modern problems in the chemical, biological, and materials sciences.

A real intellectual tour de force, and a pleasure to teach from. -- David L. Beveridge, Wesleyan University I found it very refreshing. Plausible examples are introduced at a very early stage. -- Richard Jones, University of Sheffield, UK The examples send the reader right out of textbook land and into interesting and current problems. -- John Schellman, University of Oregon This is the most clearly written, insightful Physical Chemistry text available. -- Terrence G. Oas, Duke University About the Author KEN A. DILL is Professor of Pharmaceutical Chemistry and Biophysics at the University of California, San Francisco. He received his undergraduate training at MIT, his PhD from the University of California, San Diego, and did postdoctoral work at Stanford. A leading researcher in biopolymer statistical mechanics and protein folding, he has been the President of the Biophysical Society and received the Hans Neurath Award from the Protein Society in 1998. SARINA BROMBERG received her BFA at the Cooper Union for the Advancement of Science and Art, her PhD in molecular biophysics from Wesleyan University, and her postdoctoral training at the University of California, San Francisco. She writes, edits and illustrates scientific textbooks.