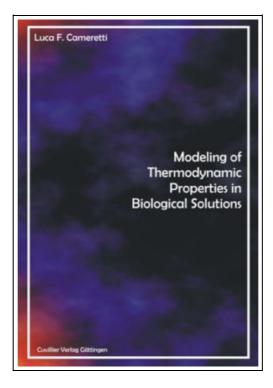
Modeling of Thermodynamic Properties in Biological Solutions



Filesize: 2.37 MB

Reviews

This ebook is very gripping and fascinating. Sure, it is engage in, nevertheless an amazing and interesting literature. It is extremely difficult to leave it before concluding, once you begin to read the book.

(Ms. Ora Buckridge)

MODELING OF THERMODYNAMIC PROPERTIES IN BIOLOGICAL SOLUTIONS



Cuvillier Verlag Jan 2009, 2009. Taschenbuch. Condition: Neu. Neuware - More than 90% of the production costs for amino acids, peptides, and proteins are attributed to their purification. Therefore, reliable information about phase behavior of biological systems is of essential financial importance for the design of separation units. In general, bioproducts are obtained by fermentation in aqueous solutions that may also contain electrolytes. The phase behavior of such solutions is particulary dependent on salt type, ionic strength, and pH In this thesis a model based on the PC-SAFT equation of state is developed for the description of thermodynamic properties of aqueous electrolyte solutions. This model is also applied for aqueous amino acid and peptide systems. The aim is to simultaneously describe various system properties - densities, vapor pressures, activity coefficients, and solubilities - with a minimum number of adjustable model parameters. After successful modeling of the binary systems, ternary water/electrolyte/amino acid systems are investigate. Additionally, the meta-stable liquid-liquid coacervation in protein solutions as well as the second osmotic virial coefficients, system densities, and solubilities of proteins are scrutinized based on aqueous hen egg-white lysozyme/NaCl solutions. Both, the PC-SAFT model and a model based on potential of mean force (PMF) are tested for their applicability regarding such complex mixtures. It is shown that the PC-SAFT approach fails in the description of protein solutions whereas the PMF ansatz yields, at least, good qualitative agreement between model and experiment. All models used for this thesis were implemented in Fortran. The evaluation of data was carried out with Matlab®. 137 pp. Englisch.



Read Modeling of Thermodynamic Properties in Biological Solutions Online Download PDF Modeling of Thermodynamic Properties in Biological Solutions

You May Also Like



$A \ Dog \ of \ Flanders: \ Unabridged; In \ Easy-to-Read \ Type \ (Dover \ Children's \ Thrift \ Classics)$

Dover Publications, 2011. Paperback. Book Condition: New. No Jacket. New paperback book copy of A Dog of Flanders by Ouida (Marie Louise de la Ramee). Unabridged in easy to read type. Dover Children's Thrift Classic....

Read ePub

>>



Prevent-Teach-Reinforce for Young Children: The Early Childhood Model of Individualized Positive Behavior Support

Brookes Publishing Co. Paperback. Book Condition: new. BRAND NEW, Prevent-Teach-Reinforce for Young Children: The Early Childhood Model of Individualized Positive Behavior Support, Glen Dunlap, Kelly Wilson, Phillip S. Strain, Janice K. Lee, "Learn more about...

Read ePub

>>



Grandpa Spanielson's Chicken Pox Stories: Story #1: The Octopus (I Can Read Book 2)

HarperCollins, 2005. Book Condition: New. Brand New, Unread Copy in Perfect Condition. A+ Customer Service! Summary: Foreword by Raph Koster. Introduction. I. EXECUTIVE CONSIDERATIONS. 1. The Market. Do We Enter the Market? Basic Considerations. How...

Read ePub

..



Adobe Indesign CS/Cs2 Breakthroughs

Peachpit Press, 2005. Softcover. Book Condition: Neu. Gebraucht - Sehr gut Unbenutzt. Schnelle Lieferung, Kartonverpackung. Abzugsfähige Rechnung. Bei Mehrfachbestellung werden die Versandkosten anteilig erstattet. - Adobe InDesign is taking the publishing world by storm and...

Read ePub

»



The Preschool Inclusion Toolbox: How to Build and Lead a High-Quality Program

Brookes Publishing Co, United States, 2015. Paperback. Book Condition: New. 274 x 213 mm. Language: English . Brand New Book. Filled with tips, tools, and strategies, this book is the comprehensive, practical toolbox preschool administrators...

Read ePub

»