Modeling, Analysis and Optimization of Process and Energy Systems

F. Carl Knopf
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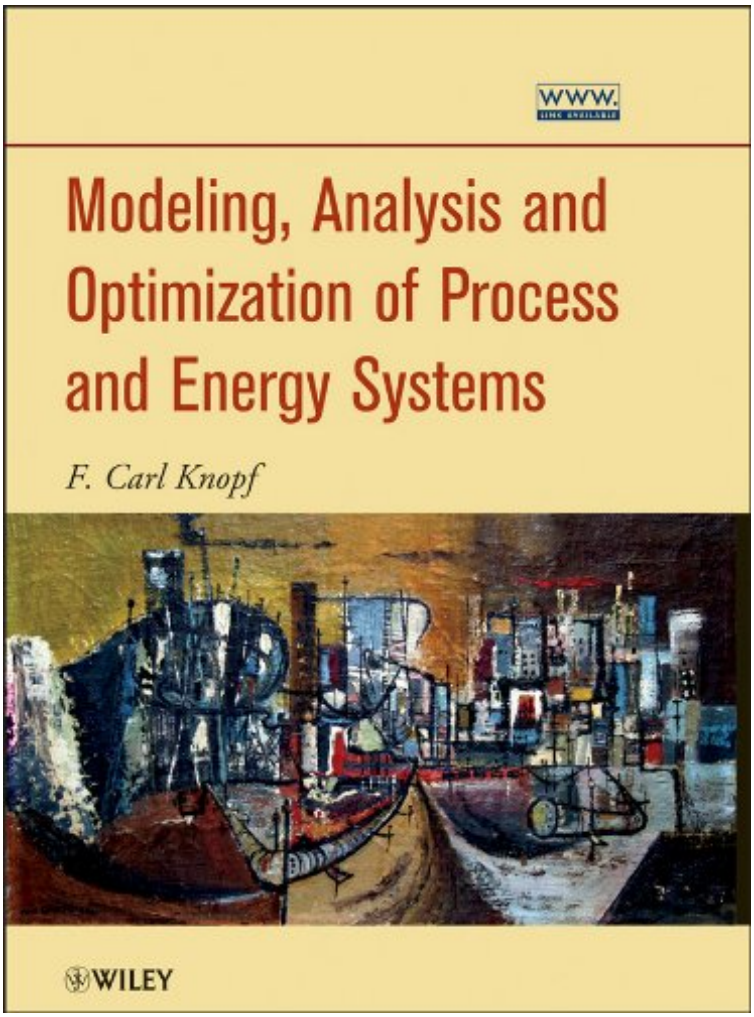

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F. Carl Knopf : Modeling, Analysis and Optimization of Process and Energy Systems before purchasing it in order to gage whether or not it would be worth my time, and all praised Modeling, Analysis and Optimization of Process and Energy Systems:

0 of 0 people found the following review helpful. Starts easy and digs deeper as each chapter progressesBy BudI am a practical Excel user and have been working as a production engineer of metal concentrating (milling and flotation from ore) since 1994. I have been looking for refreshers in mass balancing methods as it is applied to our common desktop spreadsheet software and I have to admit that this book has been easy to follow so far (I have been following especially chapter 3 for material balancing). Chapter 3 starts from the concepts of conservation of masses and linked successfully to substitution methods in Excel that is easy to follow. Although I have only followed less than 20% of the book, I can so far only see strengths (Kindle Edition - even though it is cheaper) at : 1) link to codes and

spreadsheet files to follow along 2) a pdf link to the figures (so that we could print this and take notes pertaining a subject or example. If you want to strengthen your modeling ability in Excel in a practical and easy way, look no further.0 of 0 people found the following review helpful. Five StarsBy Domenico MarcheseExcellent0 of 1 people found the following review helpful. Five StarsBy Nabeel AlabbasCute

Energy costs impact the profitability of virtually all industrial processes. Stressing how plants use power, and how that power is actually generated, this book provides a clear and simple way to understand the energy usage in various processes, as well as methods for optimizing these processes using practical hands-on simulations and a unique approach that details solved problems utilizing actual plant data. Invaluable information offers a complete energy-saving approach essential for both the chemical and mechanical engineering curricula, as well as for practicing engineers.

From the Back CoverA systematic, integrated, and complete approach for minimizing energy use and reducing costs in processing plantsEnergy costs impact the profitability of virtually all industrial facilities, particularly those in the chemical and bulk materials processing fields, where everyday operations call for a high demand of power. To allow readers to better understand how energy flows work in a processing plant, Modeling, Analysis, and Optimization of Process and Energy Systems follows a logical instructional path to instill basic fundamentals, while stressing the need for stronger coupling of the supply and demand sides of the energy equation. Its goal is to encourage industrial processing practices that are both environmentally and fiscally responsible. Modeling, Analysis, and Optimization of Process and Energy Systems:Offers a clear and simple way to understand energy use in existing and emerging processes, and provides practical "hands-on" simulationsPresents a targeted plan for minimizing cost and optimizing the design of a processing plant using cogeneration as an exampleDiffers from other texts in this area in that all problems are completely solved, with many problems utilizing actual plant dataProvides online videos and a detailed solutions manual Includes thermodynamic and energy analysis software tools provided as open source code, which encourages further development by usersAn indispensable guide for solving energy optimization problems, Modeling,Analysis, and Optimization of Process and Energy Systems is an ideal resource for anyone interested in discovering new methods for minimizing energy costs and maximizing profitability. Individual chapters can be used to establish an "Energy Thread" in several engineering courses. The text is also an ideal resource for an elective course on process and energy systems engineering.About the AuthorF. Carl Knopf is the Robert D. and Adele Anding Professor of Chemical Engineering and Associate Director of the Center for Energy Studies' Minerals Processing Research Institute at Louisiana State University.