Engineering Biosensors: Kinetics and Design Applications

Ajit Sadana
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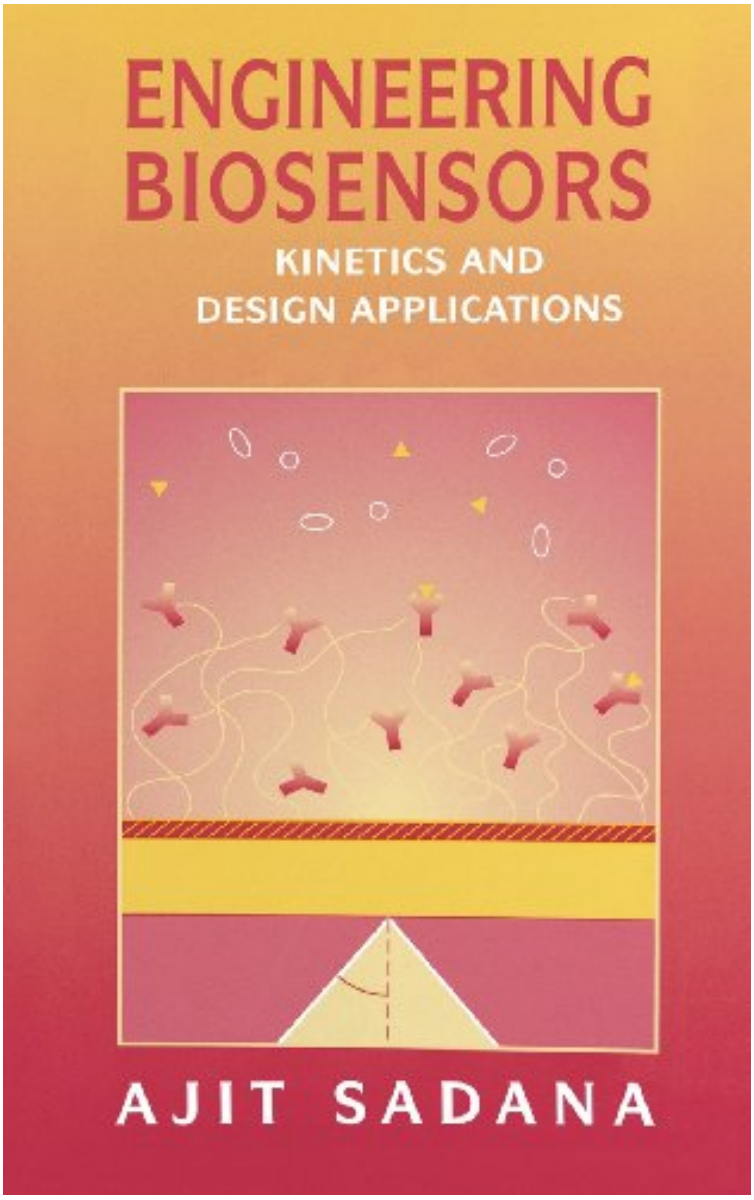

#6613120 in Books 2001-10-11Original language:EnglishPDF # 1 9.02 x .94 x 5.98l, 1.73 #File Name: 0126137633404 pages | File size: 43.Mb

Ajit Sadana : Engineering Biosensors: Kinetics and Design Applications before purchasing it in order to gage whether or not it would be worth my time, and all praised Engineering Biosensors: Kinetics and Design Applications:

0 of 0 people found the following review helpful. The author often presents equations without proof but the worse thing is that explanation of concepts is very poorBy David MusokeI use this book for my graduate level class called Biosensors and had hoped it'd teach me how to design a modern day biosensor. Unfortunately, this book is far from it.

It's filled with strange arcane equations you can't source anywhere on the internet. It's very difficult to understand the presented material. The author often presents equations without proof but the worse thing is that explanation of concepts is very poor and not understandable. The language structure is painful, difficult and tough to understand. I know this is meant for a grduate level course but at least it'd been nice of the material was easily readable and digestable.Also, the book seems to use very dated knowledge from the 1980s and before. Equation symbols are dated and hard, if not impossible to find on google or Wikipedia if you need further help to understand them.

Biosensors are becoming increasingly important bioanalytical tools in the pharmaceutical, biotechnology, food, and other consumer oriented industries. The technology, though well developed in Europe, is slowly developing and has begun to generate interest in the United States only over the past couple of years. Research is now being directed toward the development of biosensors that are versatile, economical, and simple to use.Engineering Biosensors is a comprehensive introduction to biosensors that includes numerous illustrations to further explain the main concepts and practical examples from existing literature. It describes what biosensors are, where they are used, and how their performance is affected by existing surface characteristics.A better understanding of biosensors, as provided by this book, will greatly assist in the design of new as well as the improvement of existing biosensors. Readers are also provided with invaluable and hard-to-find data on the economics of the biosensor market to assist them in better understanding the market and where it is heading.

From the Back CoverAnalysis of the binding between an analyte and a receptor is a key step in the design of immunodiagnostic assays and biosensors. This book describes and makes more quantitative the binding kinetics between an analyte and a receptor using a technique based on fractals. Actual examples from the existing literature are provided to illustrate the simplicity and the wide applicability of the technique. A better understanding of the binding interactions on the biosensor surface will greatly assist in the design as well as in the improvement of existing biosensors. In addition, the book deals with the economics of the biosensor market, and its past, present, and future trends.KEY FEATURES: Describes a simple, rapid, and robust technique for evaluating binding kinetics in biosensors Includes a large number of examples illustrating the mathematical techniques Contains difficult to find data on existing biosensor industry economics Provides comprehensive introduction to biosensors, including illustrations to better explain the main concepts Includes recommendations to help design and improve existing biosensors Supplies useful information for biologists, chemists, and mathematicians Draws a distinction between classical modeling techniques and fractal models The techniques described will provide chemists, biologists, and mathematicians with an alternative technique for better modeling and describing complex analyte-receptor binding kinetics. This book should help those in the biosensor industry to better understand the existing market and to predict where the market is heading.