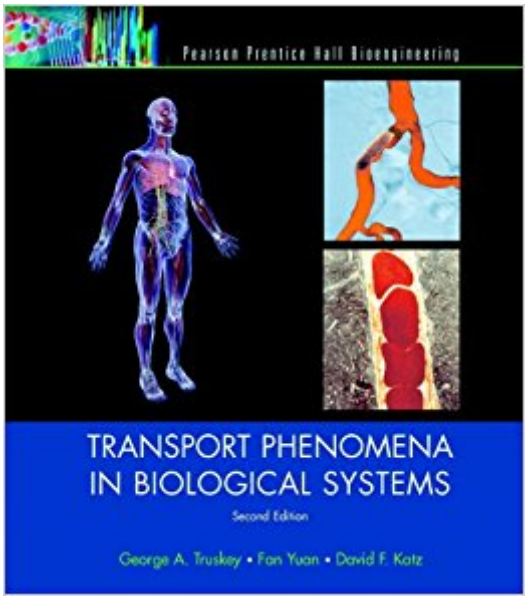
Transport Phenomena In Biological Systems (2nd Edition)



Synopsis

Presenting engineering fundamentals and biological applications in a unified way, this book provides learners with the skills necessary to develop and critically analyze models of biological transport and reaction processes. It covers topics in fluid mechanics, mass transport, and biochemical interactions, with engineering concepts motivated by specific biological problems. For researchers in biomedical engineering.

Book Information

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Customer Reviews

The efficient transport of molecules is essential for the normal function of cells and organs and the design of devices for medical applications and biotechnology. Transport Phenomena in Biological Systems provides an introduction to the integrated study of transport processes and their biological applications. The book consists of four sections, which cover physiological fluid mechanics, mass transport, biochemical interactions and reactions and the effect of mass transfer, and transport in organs and whole organisms. In order to provide students with a firm understanding of biological transport processes, engineering concepts are provided within the context of specific biological problems. Examples and problems elaborate on the concepts in the text or develop new concepts. The introductory chapter presents a brief overview of transport processes at the cell and tissue level and relevant concepts in cell biology and physiology are presented throughout the text. An appendix provides an overview of relevant mathematical concepts used in the text. The problems at the end of each chapter require either analytical solution or numerical solution using MATLABÂ®. This book

can be used for both introductory and advanced courses. Advanced topics covered include transport in the kidney, oxygen transport, receptor-mediated processes, cell adhesion, transport of drugs in tumors, and whole body pharmacokinetic models. References are provided for further study.

The authors are faculty members in the Department of Biomedical Engineering at Duke University.Â The authors are leaders in their respective fields of research and their research has involved various aspects of momentum and mass transport related to biological phenomena and technologies.

Not as many examples and notations is not consistent throughout the book

Excellent condition.

required book

The book’s papers are too bad quality. So, I want either to change or retun the book.

Not terribly easy to understand.

Okay...90% of this book is information that has been around for years and I am just not a fan of the exorbitant price that the publishers extract out of students further burdening them with debt. Further I am thinking this took forever to arrive, but I am not rating based on pathetic service from the vendor.

Had to get this book for a bioengineering transport class. This book is horrible. While it has interesting background physiology info, it’s terrible in the engineering classroom. There are few worked examples in the book, and whatever worked examples there are skip a lot of steps. There are a lot of equation derivations, as can be expected from any engineering book, but the explanations are hit-or-misses, and sometimes difficult to grasp the concept of. There are no answers in the back of the book for you to determine if did the problems right or wrong. The answer key available separately contains a ton of errors, or again, skips a lot of steps. Though I thought it would be impossible, the explanations in the answer key are even worse than the ones available in

the book.All in all, I thought this was a terrible book.

the book was new, but it had a manufacturing problem so I was not pleased with that, but couldn't return it because I needed it in class. Otherwise, came in time, everything else was as described.

Transport Phenomena in Biological Systems (2nd Edition) Transport Phenomena in Biological Systems by George A. Truskey (2009-12-23) Transport Phenomena in Biological Systems by George A. Truskey (2009-07-30) Advanced Transport Phenomena: Fluid Mechanics and Convective Transport Processes (Cambridge Series in Chemical Engineering) Computational Transport Phenomena of Fluid-Particle Systems (Mechanical Engineering Series) Transport Phenomena, Revised 2nd Edition Transport Phenomena, 2nd Edition Analysis of Transport Phenomena (2nd Edition) [Paperback] Laser Interaction and Related Plasma Phenomena (Laser Interaction & Related Plasma Phenomena) Basic Transport Phenomena in Biomedical Engineering,Third Edition Basic Transport Phenomena in Biomedical Engineering, Fourth Edition Basic Transport Phenomena in Biomedical Engineering,Third Edition (500 Tips) Transport Phenomena Fundamentals, Third Edition (Chemical Industries) Introductory Transport Phenomena Analysis of Transport Phenomena (Edn 2) By William M. Deen Analysis of Transport Phenomena (Topics in Chemical Engineering) Transport Phenomena Transport Phenomena by R. Byron Bird (1960-01-15) Transport Phenomena: A Unified Approach Vol. 1 Transport Phenomena: A Unified Aprroach Vol. 2