Transport Phenomena in Biological Systems

This book presents the basic principles of the transport phenomena in biological systems. It is a comprehensive resource for students, researchers, and professionals working in the fields of biology, chemistry, engineering, and materials science.

The book is organized into five parts: mass conservation, charge conservation, energy conservation, mass and energy transport, and applications. Each part covers fundamental concepts and principles, as well as applications and case studies. The book also includes appendices on mathematical methods, scaling and asymptotic methods, and computer simulations.

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Part III: Energy Conservation
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Appendices
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Appendix B: Scaling and Asymptotic Methods
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This book is an essential resource for students, researchers, and professionals in the fields of biology, chemistry, engineering, and materials science. It provides a comprehensive overview of the fundamental principles and applications of transport phenomena in biological systems.
analyses, focuses on the cardiovascular system with common arterial diseases, organ systems, targeted drug delivery, and stem-cell implants. Armed with Biomechanics Dynamics, students will be ready to solve basic biomechanics problems, gain new physical insight, and analyze biomechanics aspects of...