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Titolo	Transport phenomena : an introduction to advanced topics / / Larry A. Glasgow
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ISBN	9780470626610 9780470626603 0470626607
Descrizione fisica	1 online resource
Disciplina	530.4/75
Soggetti	Energy transfer Transport theory - Mathematics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
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Nota di bibliografia	Includes bibliographical references and index.
Sommario/riassunto	<p>Enables readers to apply transport phenomena principles to solve advanced problems in all areas of engineering and science. This book helps readers elevate their understanding of, and their ability to apply, transport phenomena by introducing a broad range of advanced topics as well as analytical and numerical solution techniques. Readers gain the ability to solve complex problems generally not addressed in undergraduate-level courses, including nonlinear, multidimensional transport, and transient molecular and convective transport scenarios. Avoiding rote memorization, the author emphasizes a dual approach to learning in which physical understanding and problem-solving capability are developed simultaneously. Moreover, the author builds both readers' interest and knowledge by:</p> <ul style="list-style-type: none"> * Demonstrating that transport phenomena are pervasive, affecting every aspect of life * Offering historical perspectives to enhance readers' understanding of current theory and methods * Providing numerous examples drawn from a broad range of fields in the physical and life sciences and engineering * Contextualizing problems in scenarios so that their rationale and significance are clear * This text generally avoids the use of commercial software for problem solutions, helping readers

cultivate a deeper understanding of how solutions are developed. References throughout the text promote further study and encourage the student to contemplate additional topics in transport phenomena. Transport Phenomena is written for advanced undergraduates and graduate students in chemical and mechanical engineering. Upon mastering the principles and techniques presented in this text, all readers will be better able to critically evaluate a broad range of physical phenomena, processes, and systems across many disciplines.
