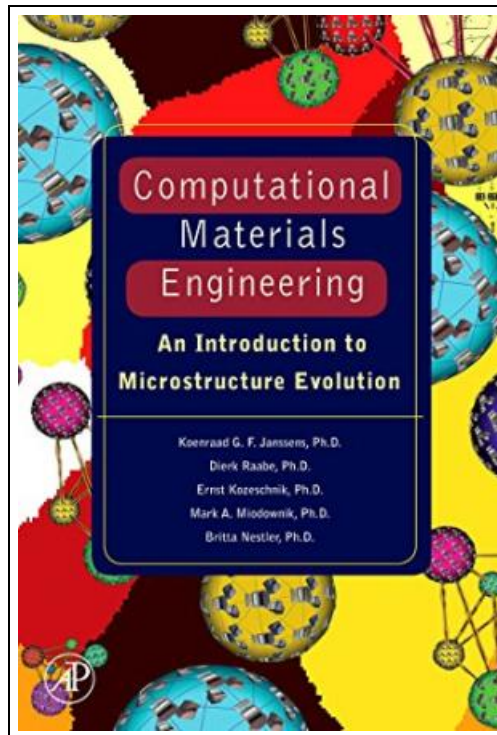


## Computational Materials Engineering: An Introduction to Microstructure Evolution



Filesize: 7.58 MB

### **Reviews**

*A brand new e-book with a new viewpoint. I actually have read and so i am certain that i am going to gonna read again once more later on. I am quickly could get a pleasure of studying a published ebook.*  
**(Anastasia Kerluke)**

## COMPUTATIONAL MATERIALS ENGINEERING: AN INTRODUCTION TO MICROSTRUCTURE EVOLUTION



Academic Press. Hardcover. Condition: New. 360 pages. Dimensions: 10.3in. x 7.3in. x 0.9in. Computational Materials Engineering is an advanced introduction to the computer-aided modeling of essential material properties and behavior, including the physical, thermal and chemical parameters, as well as the mathematical tools used to perform simulations. Its emphasis will be on crystalline materials, which includes all metals. The basis of Computational Materials Engineering allows scientists and engineers to create virtual simulations of material behavior and properties, to better understand how a particular material works and performs and then use that knowledge to design improvements for particular material applications. The text displays knowledge of software designers, materials scientists and engineers, and those involved in materials applications like mechanical engineers, civil engineers, electrical engineers, and chemical engineers. Readers from students to practicing engineers to materials research scientists will find in this book a single source of the major elements that make up contemporary computer modeling of materials characteristics and behavior. The reader will gain an understanding of the underlying statistical and analytical tools that are the basis for modeling complex material interactions, including an understanding of computational thermodynamics and molecular kinetics; as well as various modeling systems. Finally, the book will offer the reader a variety of algorithms to use in solving typical modeling problems so that the theory presented herein can be put to real-world use. . Balanced coverage of fundamentals of materials modeling, as well as more advanced aspects of modeling, such as modeling at all scales from the atomic to the molecular to the macro-material. Concise, yet rigorous mathematical coverage of such analytical tools as the Potts type Monte Carlo method, cellular automata, phase field, dislocation dynamics and Finite Element Analysis in statistical and analytical modeling. Companion web site will offer ample workable programs, along with suggested projects, resources...



[Read Computational Materials Engineering: An Introduction to Microstructure Evolution Online](#)

[Download PDF Computational Materials Engineering: An Introduction to Microstructure Evolution](#)

## Other Books

---



### **Some of My Best Friends Are Books : Guiding Gifted Readers from Preschool to High School**

Book Condition: Brand New. Book Condition: Brand New.

[Read Book »](#)

---



### **Kidz Bop - A Rockin' Fill-In Story: Play Along with the Kidz Bop Stars - and Have a Totally Jammin' Time!**

Adams Media. PAPERBACK. Book Condition: New. 144050573X.

[Read Book »](#)

---



### **Art appreciation (travel services and hotel management professional services and management expertise secondary vocational education teaching materials supporting national planning book)(Chinese Edition)**

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment. Pages Number: 146 Publisher: Higher Education Pub. Date :2009-07-01 version 2. This book is...

[Read Book »](#)

---



### **Applied Undergraduate Business English family planning materials: business knowledge REVIEW (English) (Chinese Edition)**

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment. Paperback. Pub Date: 2012 Pages: 240 Language: English Publisher: Foreign Economic and Trade University...

[Read Book »](#)

---



### **On the seventh grade language - Jiangsu version supporting materials - Tsinghua University Beijing University students efficient learning**

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment. Pages Number: 116 Publisher: Beijing Education Press Pub. Date :2009-6-1. Colorful three-dimensional law degree...

[Read Book »](#)