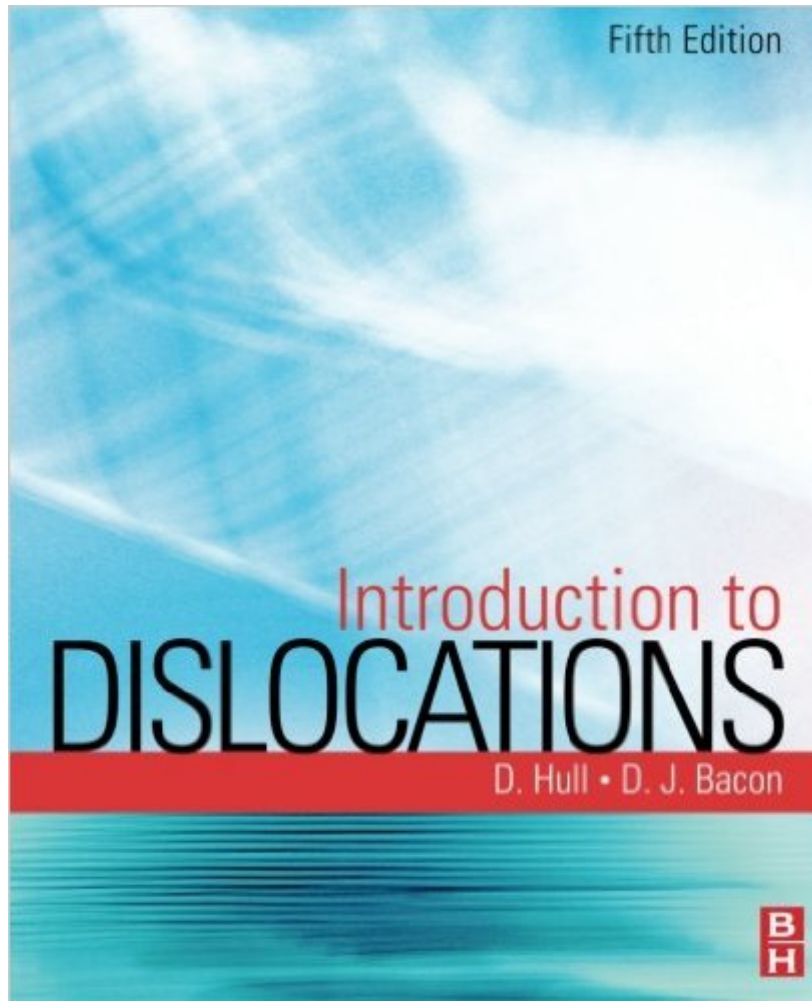


The book was found

Introduction To Dislocations, Fifth Edition



Synopsis

In materials science, dislocations are irregularities within the crystal structure or atomic scale of engineering materials, such as metals, semi-conductors, polymers, and composites. Discussing this specific aspect of materials science and engineering, Introduction to Dislocations is a key resource for students. The book provides students and practitioners with the fundamental principles required to understand dislocations. Comprised of 10 chapters, the text includes advanced computer modeling and very high-resolution electron microscopy to help readers better understand the structure of atoms close to the core of dislocations. It shows that atomic arrangement has a significant effect on the formation of dislocations and thereby on the properties of solids. The first two chapters of the book present an overview of dislocations. The crystal structures and the various defects and dislocations are discussed, and methods of observation and diagnosis of dislocations are covered. Chapters 3 to 5 discuss the behavior of dislocations and explain how changes in the structure and arrangement of atoms can affect the behavior of dislocations. The three chapters also discuss the mechanical properties of dislocations. The remaining chapters offer a detailed discussion of the mechanisms of dislocations and the mechanical strength of crystalline solids. The book is written for undergraduate- and graduate-level students in both materials science and mechanical engineering. Non-experts and novices working on mechanical properties, mechanisms of deformation and fracture, and properties of materials, as well as industrial and academic researchers, will find this book invaluable. Long-established academic reference by an expert author team, highly regarded for their contributions to the field. Uses minimal mathematics to present theory and applications in a detailed yet easy-to-read manner, making this an understandable introduction to a complex topic. Unlike the main competition, this new edition includes recent developments in the subject and up-to-date references to further reading and research sources.

Book Information

Paperback: 272 pages

Publisher: Butterworth-Heinemann; 5 edition (April 18, 2011)

Language: English

ISBN-10: 0080966721

ISBN-13: 978-0080966724

Product Dimensions: 7.5 x 0.6 x 9.2 inches

Shipping Weight: 1.3 pounds (View shipping rates and policies)

Average Customer Review: 5.0 out of 5 stars [See all reviews](#) (4 customer reviews)

Best Sellers Rank: #844,989 in Books (See Top 100 in Books) #24 in Books > Engineering & Transportation > Engineering > Materials & Material Science > Fracture Mechanics #3255 in Books > Engineering & Transportation > Engineering > Mechanical #5008 in Books > Textbooks > Engineering

Customer Reviews

It is an ideal textbook for graduate students in materials science who are interested in the deformation mechanism of polycrystalline metallic materials.

I bought this book to learn more about the subject of dislocations. I've never taken any course in dislocations, but I found this book (at least the first four chapters) relatively simple to read and understand. This book provides a good entry-level introduction to dislocations. It is recommended as a first read if you do not have previous background in dislocations.

This was my test in Grad School - only better with the subsequent revisions. Every engineer should read this book - EE to Environmental Sciences

good

[Download to continue reading...](#)

Introduction to Dislocations, Fifth Edition Slipping Away: Banana Politics and Fair Trade in the Eastern Caribbean (Dislocations) The 36-Hour Day, fifth edition: The 36-Hour Day: A Family Guide to Caring for People Who Have Alzheimer Disease, Related Dementias, and Memory Loss (A Johns Hopkins Press Health Book) 5th (fifth) edition GIS Tutorial for Health, fifth edition: Fifth Edition Theory and Practice of Group Psychotherapy, Fifth Edition 5th (fifth) edition (authors) Yalom, Irvin D., Leszcz, Melyn (2005) published by Basic Books [Hardcover] What Your Fifth Grader Needs to Know: Fundamentals of a Good Fifth-Grade Education (Core Knowledge Series) The Fifth Knight (The Fifth Knight Series Book 1) The Blood of the Fifth Knight (The Fifth Knight Series Book 2) Embedded Systems: Introduction to Arm® Cortex™-M Microcontrollers , Fifth Edition (Volume 1) Fundamentals of Hearing: An Introduction: Fifth Edition Introduction to Naval Architecture, Fifth Edition Introduction to Community-Based Nursing Fifth Edition Testbank The Canadian Regime: An Introduction to Parliamentary Government in Canada, Fifth Edition Introduction to Reference Sources in the Health Sciences, Fifth Edition (Medical Library Association Guides) Biological Psychology: An Introduction to Behavioral, Cognitive, and Clinical Neuroscience, Fifth Edition

Introduction to the Thermodynamics of Materials, Fifth Edition Introduction to Probability and Statistics for Engineers and Scientists, Fifth Edition Discrete and Combinatorial Mathematics: An Applied Introduction, Fifth Edition How to Plan, Contract, and Build Your Own Home, Fifth Edition: Green Edition (How to Plan, Contract & Build Your Own Home) Conquering Headache 5th Edition Fifth Edition

[Dmca](#)