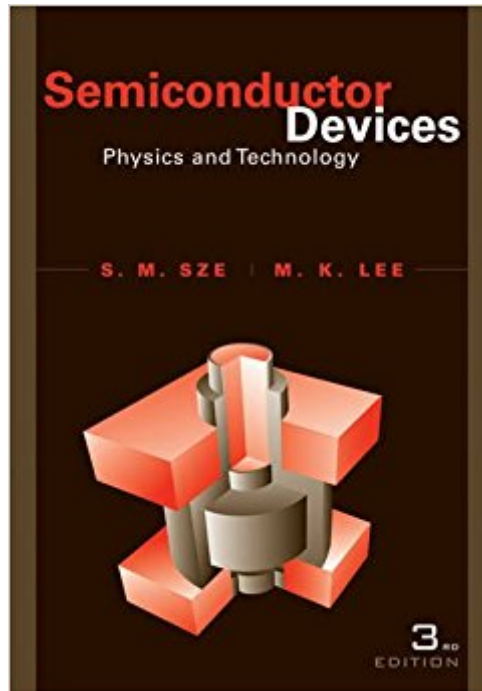




Ebook Directory
the best source of ebook

The book was found

Semiconductor Devices: Physics And Technology



Synopsis

Semiconductor Devices: Physics and Technology, Third Edition is an introduction to the physical principles of modern semiconductor devices and their advanced fabrication technology. It begins with a brief historical review of major devices and key technologies and is then divided into three sections: semiconductor material properties, physics of semiconductor devices and processing technology to fabricate these semiconductor devices.

Book Information

Hardcover: 592 pages

Publisher: Wiley; 3 edition (May 15, 2012)

Language: English

ISBN-10: 0470537949

ISBN-13: 978-0470537947

Product Dimensions: 8.2 x 0.9 x 10 inches

Shipping Weight: 2.5 pounds (View shipping rates and policies)

Average Customer Review: 3.5 out of 5 stars 30 customer reviews

Best Sellers Rank: #89,613 in Books (See Top 100 in Books) #17 in [Books > Science & Math > Physics > Solid-State Physics](#) #23 in [Books > Engineering & Transportation > Engineering > Electrical & Electronics > Electronics > Semiconductors](#) #56 in [Books > Science & Math > Physics > Electromagnetism](#)

Customer Reviews

Solutions Manual and Student's Solutions Manual available. -- The publisher, John Wiley & Sons
--This text refers to an out of print or unavailable edition of this title.

A basic introduction to the physical properties of semiconductor devices and fabrication technology, this work presents the theoretical and practical aspects of every step in device fabrication, with an emphasis on integrated circuits. Divided into three parts, it covers the basic properties of semiconductors and processes, emphasizing silicon and gallium arsenide; the physics and characteristics of semiconductor devices, bipolar and unipolar devices, and special microwave and photonic devices; and the latest processing technologies, from crystal growth to lithographic pattern transfer. --This text refers to an out of print or unavailable edition of this title.

This text book is not readable. It just doesn't have a good layout to it. For instance, the pages don't

contain the chapter number you are in. You have to figure it out based on examples. One of the chapters(I think chapter 12) was labeled as chapter 11 in the problems, which led to massive amounts of confusion when we did that HW. All of the constants that the book expects you to use are buried inside large paragraphs, therefore it usually wasn't easy to scan a section to find what you were looking for. In addition, several constants, despite being crucial components of the concepts about the atomic level operation of semiconductors, were mentioned nonchalantly and rarely had any explanation as to their importance. It usually meant spending half an hour on the internet seeking understanding where this book should have provided. It contains some errors as well. The only reason we know that is because some of the equations were incorrect compared with internet resources and the professor's knowledge himself. All in all this is a terrible book that was written by professors, for professors. It isn't good for students because it is so disorganized and does not do a good job of introducing difficult concepts of semiconductor physics.

I'm currently studying electrical engineering, and was interested in learning about semiconductors, so I signed up for a class. This was the book my professor selected, and so far this experience has been a nightmare. The book only has one or two examples per section, and many of them just skip important details in the derivations. Repeatedly terms are used before they are defined pages later, and the graphs often referenced when solving problems make it almost impossible to get an accurate reading. This book is a giant headache - I'm having to look at renting another textbook to reference to get through this class, which as you know, isn't cheap. I would never recommend this book to anyone.

I bought this book to prepare for my graduate school quals - we're supposed to know something about semiconductor technology. This book is not great - the author doesn't always derive even basic formulas, and the organization leaves something to be desired. If you are looking for an intro to semiconductors, I'd recommend Robert Pierret's book - it's much better.

The answers in the back of the book do not match up with the questions. (the answers match up with the US edition questions, but the international edition has different questions). Overall I felt like the text was hard to follow. Too many equations with too little explanation/theory in between.

This class at least in my opinion is one of the more difficult classes and the book goes into more than enough explanation and detail for my class that I felt I understood the subject and it showed

because I got an A in the class.

As a reference text, this is often a useful book. However, it seems as if a lot of information is left out for many of the problems at the end of chapters.

I feel like this book leaves out necessary explanations on solid state physics to appreciate or fully understand semiconductor devices. Knowing that S.M. Sze's other book "Physics of Semiconductor Devices" is used as the "bible" of semiconductors, I would have preferred that our teacher had used that book instead.

Great Book!!!

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

Semiconductor Physics and Applications (Series on Semiconductor Science and Technology)
Semiconductor Devices: Physics and Technology Semiconductor Physics And Devices: Basic
Principles Semiconductor Physics And Devices Semiconductor Physics and Devices International
Edition Semiconductor Power Devices: Physics, Characteristics, Reliability Physics of
Semiconductor Devices Integrated circuit devices and components (Integrated-circuit technology,
analog and logic circuit design, memory and display devices) Semiconductor Laser Engineering,
Reliability and Diagnostics: A Practical Approach to High Power and Single Mode Devices
Understanding Semiconductor Devices (The Oxford Series in Electrical and Computer Engineering)
Principles of Semiconductor Devices (The Oxford Series in Electrical and Computer Engineering)
Silicon Carbide Biotechnology, Second Edition: A Biocompatible Semiconductor for Advanced
Biomedical Devices and Applications Semiconductor Devices for High-Speed Optoelectronics An
Introduction to Semiconductor Devices Microwave Noise in Semiconductor Devices Semiconductor
Devices Semiconductor Materials and Process Technology Handbook (VLSI and ULSI) Prostheses:
Design, Types, and Complications (Biomedical Devices and Their Applications; Medical Devices
and Equipment) US Army Technical Manual, ARMY DATA SHEETS FOR CARTRIDGES,
CARTRIDGE ACTUATED DEVICES AND PROPELLANT ACTUATED DEVICES, FSC 1377, TM
43-0001-39, 1991 ISO 14971:2007, Medical devices - Application of risk management to medical
devices

Contact Us

DMCA

Privacy

FAQ & Help