



Semiconductor Material and Device Characterization

By Dieter K. Schroder

Download now

Read Online 

Semiconductor Material and Device Characterization By Dieter K. Schroder

This *Third Edition* updates a landmark text with the latest findings

The Third Edition of the internationally lauded *Semiconductor Material and Device Characterization* brings the text fully up-to-date with the latest developments in the field and includes new pedagogical tools to assist readers. Not only does the *Third Edition* set forth all the latest measurement techniques, but it also examines new interpretations and new applications of existing techniques.

Semiconductor Material and Device Characterization remains the sole text dedicated to characterization techniques for measuring semiconductor materials and devices. Coverage includes the full range of electrical and optical characterization methods, including the more specialized chemical and physical techniques. Readers familiar with the previous two editions will discover a thoroughly revised and updated *Third Edition*, including:

- Updated and revised figures and examples reflecting the most current data and information
- 260 new references offering access to the latest research and discussions in specialized topics
- New problems and review questions at the end of each chapter to test readers' understanding of the material

In addition, readers will find fully updated and revised sections in each chapter.

Plus, two new chapters have been added:

- Charge-Based and Probe Characterization introduces charge-based measurement and Kelvin probes. This chapter also examines probe-based measurements, including scanning capacitance, scanning Kelvin force, scanning spreading resistance, and ballistic electron emission microscopy.
- Reliability and Failure Analysis examines failure times and distribution functions, and discusses electromigration, hot carriers, gate oxide integrity, negative bias temperature instability, stress-induced leakage current, and electrostatic discharge.

Written by an internationally recognized authority in the field, *Semiconductor Material and Device Characterization* remains essential reading for graduate students as well as for professionals working in the field of semiconductor devices and materials.

An Instructor's Manual presenting detailed solutions to all the problems in the book is available from the Wiley editorial department.

 [Download Semiconductor Material and Device Characterization ...pdf](#)

 [Read Online Semiconductor Material and Device Characterizati ...pdf](#)

Semiconductor Material and Device Characterization

By Dieter K. Schroder

Semiconductor Material and Device Characterization By Dieter K. Schroder

This *Third Edition* updates a landmark text with the latest findings

The Third Edition of the internationally lauded *Semiconductor Material and Device Characterization* brings the text fully up-to-date with the latest developments in the field and includes new pedagogical tools to assist readers. Not only does the *Third Edition* set forth all the latest measurement techniques, but it also examines new interpretations and new applications of existing techniques.

Semiconductor Material and Device Characterization remains the sole text dedicated to characterization techniques for measuring semiconductor materials and devices. Coverage includes the full range of electrical and optical characterization methods, including the more specialized chemical and physical techniques. Readers familiar with the previous two editions will discover a thoroughly revised and updated *Third Edition*, including:

- Updated and revised figures and examples reflecting the most current data and information
- 260 new references offering access to the latest research and discussions in specialized topics
- New problems and review questions at the end of each chapter to test readers' understanding of the material

In addition, readers will find fully updated and revised sections in each chapter.

Plus, two new chapters have been added:

- Charge-Based and Probe Characterization introduces charge-based measurement and Kelvin probes. This chapter also examines probe-based measurements, including scanning capacitance, scanning Kelvin force, scanning spreading resistance, and ballistic electron emission microscopy.
- Reliability and Failure Analysis examines failure times and distribution functions, and discusses electromigration, hot carriers, gate oxide integrity, negative bias temperature instability, stress-induced leakage current, and electrostatic discharge.

Written by an internationally recognized authority in the field, *Semiconductor Material and Device Characterization* remains essential reading for graduate students as well as for professionals working in the field of semiconductor devices and materials.

An Instructor's Manual presenting detailed solutions to all the problems in the book is available from the Wiley editorial department.

Semiconductor Material and Device Characterization By Dieter K. Schroder Bibliography

- Sales Rank: #1870701 in eBooks
- Published on: 2008-05-02
- Released on: 2008-05-02
- Format: Kindle eBook

 [Download Semiconductor Material and Device Characterization ...pdf](#)

 [Read Online Semiconductor Material and Device Characterizati ...pdf](#)

Download and Read Free Online Semiconductor Material and Device Characterization By Dieter K. Schroder

Editorial Review

Review

"I strongly recommend this book for those who want to learn device characterization." (*IEEE Circuits & Devices Magazine*, November/December 2006)

From the Publisher

The first book devoted to modern techniques of semiconductor characterization, this comprehensive guide to semiconductor measurement methods is detailed enough for a two-term graduate course. Organized for quick access so that it can be used as a handbook of specific characterization techniques. Processes are characterized through the use of test structures and the main techniques used within the semiconductor industry are thoroughly explained. While the majority of the book is devoted to widely used electrical characterization methods, the more specialized optical, chemical and physical methods are also covered. Contains over 1,300 references.

From the Back Cover

This Third Edition updates a landmark text with the latest findings

The Third Edition of the internationally lauded Semiconductor Material and Device Characterization brings the text fully up-to-date with the latest developments in the field and includes new pedagogical tools to assist readers. Not only does the Third Edition set forth all the latest measurement techniques, but it also examines new interpretations and new applications of existing techniques.

Semiconductor Material and Device Characterization remains the sole text dedicated to characterization techniques for measuring semiconductor materials and devices. Coverage includes the full range of electrical and optical characterization methods, including the more specialized chemical and physical techniques. Readers familiar with the previous two editions will discover a thoroughly revised and updated Third Edition, including:

- Updated and revised figures and examples reflecting the most current data and information
- 260 new references offering access to the latest research and discussions in specialized topics
- New problems and review questions at the end of each chapter to test readers' understanding of the material

In addition, readers will find fully updated and revised sections in each chapter.

Plus, two new chapters have been added:

- Charge-Based and Probe Characterization introduces charge-based measurement and Kelvin probes. This chapter also examines probe-based measurements, including scanning capacitance, scanning Kelvin force, scanning spreading resistance, and ballistic electron emission microscopy.
- Reliability and Failure Analysis examines failure times and distribution functions, and discusses electromigration, hot carriers, gate oxide integrity, negative bias temperature instability, stress-induced leakage current, and electrostatic discharge.

Written by an internationally recognized authority in the field, Semiconductor Material and Device Characterization remains essential reading for graduate students as well as for professionals working in the field of semiconductor devices and materials.

Users Review

From reader reviews:

Danny Nehring:

Information is provisions for individuals to get better life, information these days can get by anyone at everywhere. The information can be a expertise or any news even an issue. What people must be consider while those information which is in the former life are challenging to be find than now's taking seriously which one is appropriate to believe or which one typically the resource are convinced. If you receive the unstable resource then you obtain it as your main information we will see huge disadvantage for you. All of those possibilities will not happen inside you if you take Semiconductor Material and Device Characterization as your daily resource information.

James Miguel:

Spent a free time and energy to be fun activity to accomplish! A lot of people spent their leisure time with their family, or all their friends. Usually they carrying out activity like watching television, about to beach, or picnic inside the park. They actually doing ditto every week. Do you feel it? Would you like to something different to fill your current free time/ holiday? Might be reading a book is usually option to fill your totally free time/ holiday. The first thing that you will ask may be what kinds of publication that you should read. If you want to try look for book, may be the reserve untitled Semiconductor Material and Device Characterization can be good book to read. May be it could be best activity to you.

Marisa Reber:

Exactly why? Because this Semiconductor Material and Device Characterization is an unordinary book that the inside of the guide waiting for you to snap this but latter it will zap you with the secret the item inside. Reading this book next to it was fantastic author who have write the book in such remarkable way makes the content inside easier to understand, entertaining way but still convey the meaning thoroughly. So , it is good for you for not hesitating having this any more or you going to regret it. This book will give you a lot of positive aspects than the other book have got such as help improving your proficiency and your critical thinking way. So , still want to delay having that book? If I had been you I will go to the publication store hurriedly.

Philip Newman:

As we know that book is very important thing to add our expertise for everything. By a e-book we can know everything we would like. A book is a set of written, printed, illustrated or even blank sheet. Every year was exactly added. This reserve Semiconductor Material and Device Characterization was filled concerning science. Spend your time to add your knowledge about your scientific disciplines competence. Some people has various feel when they reading some sort of book. If you know how big benefit of a book, you can sense enjoy to read a e-book. In the modern era like right now, many ways to get book which you wanted.

**Download and Read Online Semiconductor Material and Device
Characterization By Dieter K. Schroder #Z8JSOV0GI1M**

Read Semiconductor Material and Device Characterization By Dieter K. Schroder for online ebook

Semiconductor Material and Device Characterization By Dieter K. Schroder Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Semiconductor Material and Device Characterization By Dieter K. Schroder books to read online.

Online Semiconductor Material and Device Characterization By Dieter K. Schroder ebook PDF download

Semiconductor Material and Device Characterization By Dieter K. Schroder Doc

Semiconductor Material and Device Characterization By Dieter K. Schroder Mobipocket

Semiconductor Material and Device Characterization By Dieter K. Schroder EPub

Z8JSOV0GI1M: Semiconductor Material and Device Characterization By Dieter K. Schroder