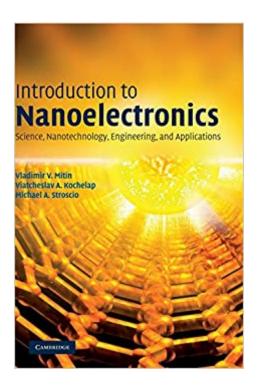


The book was found

Introduction To Nanoelectronics: Science, Nanotechnology, Engineering, And Applications





Synopsis

This textbook is a comprehensive, interdisciplinary account of the technology and science underpinning nanoelectronics, covering the underlying physics, nanostructures, nanomaterials, and nanodevices. It provides a unifying framework for the basic ideas needed to understand the developments in the field. After introducing the recent trends in semiconductor and device nanotechnologies, as well as novel device concepts, the methods of growth, fabrication and characterization of materials for nanoelectronics are discussed. Coverage then moves to an analysis of nanostructures including recently-discovered nanoobjects, and concludes with a discussion of devices that use a 'simple' scaling-down approach to copy well-known microelectronic devices, and nanodevices based on new principles that cannot be realized at the macroscale. With numerous illustrations and homework problems, this textbook is suitable for advanced undergraduate and graduate students in electrical and electronic engineering, nanoscience, materials, bioengineering and chemical engineering. Addtional resources, including instructor-only solutions and Java applets, are available from www.cambridge.org/9780521881722.

Book Information

Hardcover: 346 pages

Publisher: Cambridge University Press; 1 edition (January 14, 2008)

Language: English

ISBN-10: 0521881722

ISBN-13: 978-0521881722

Product Dimensions: 6.8 x 0.8 x 9.7 inches

Shipping Weight: 1.8 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #897,775 in Books (See Top 100 in Books) #59 in A A Books > Engineering &

Transportation > Engineering > Electrical & Electronics > Electronics > Optoelectronics #152

inĀ Ä Books > Science & Math > Technology > Nanotechnology #2734 inĀ Â Books >

Engineering & Transportation > Engineering > Telecommunications & Sensors

Customer Reviews

Review of the hardback: '... it is to be hoped that the authors succeed in their aim of spreading the word of nanoelectronics to the wide audience who they identify. One strong point in their favour has been provided by the economic price tag which is attached to this well-produced hardcover book.'

Contemporary Physics

A comprehensive textbook covering the underlying physics, nanostrucutres, nanomaterials and nanodevices of nanoelectronics. Provides a unifying framework for the basic ideas needed to understand recent developments. For advanced undergraduates and graduates in electrical and electronic engineering, nanoscience, materials, bioengineering and chemical engineering. Instructor-only solutions and Java applets available from www.cambridge.org/9780521881722.

Download to continue reading...

Introduction to Nanoelectronics: Science, Nanotechnology, Engineering, and Applications Quantum Nanoelectronics: An introduction to electronic nanotechnology and quantum computing Freezing Colloids: Observations, Principles, Control, and Use: Applications in Materials Science, Life Science, Earth Science, Food Science, and Engineering (Engineering Materials and Processes) Plasma Engineering: Applications from Aerospace to Bio and Nanotechnology Lessons from Nanoelectronics: A New Perspective on Transport (Lessons from Nanoscience: A Lecture Note) (Volume 1) Titanium in Medicine: Material Science, Surface Science, Engineering, Biological Responses and Medical Applications (Engineering Materials) Nanostructures and Nanomaterials: Synthesis, Properties, and Applications (2nd Edition) (World Scientific Series in Nanoscience and Nanotechnology) Cancer Nanotechnology: Principles and Applications in Radiation Oncology (Imaging in Medical Diagnosis and Therapy) Tissue Engineering II: Basics of Tissue Engineering and Tissue Applications (Advances in Biochemical Engineering/Biotechnology) Scanning Microscopy for Nanotechnology: Techniques and Applications Nanotechnology in Endodontics: Current and Potential Clinical Applications 3D Bioprinting and Nanotechnology in Tissue Engineering and Regenerative Medicine Nanotechnology: Understanding Small Systems, Third Edition (Mechanical and Aerospace Engineering Series) Nanotechnology: Understanding Small Systems, Second Edition (Mechanical and Aerospace Engineering Series) Introduction to Medical Imaging: Physics, Engineering and Clinical Applications (Cambridge Texts in Biomedical Engineering) Nanoimprint Lithography: Principles, Processes and Materials (Nanotechnology Science and Technology) Introduction to Biomaterials: Basic Theory with Engineering Applications (Cambridge Texts in Biomedical Engineering) Introduction to Coastal Engineering and Management (Advanced Series on Ocean Engineering) (Advanced Series on Ocean Engineering (Paperback)) Nanophysics and Nanotechnology: An Introduction to Modern Concepts in Nanoscience (No Longer Used) Introduction to Nanoscience and Nanotechnology

DMCA

Privacy

FAQ & Help