



Electrical, Electronic and Magnetic Properties of Solids (Springer Series in Materials Science)

By D. B. Sirdeshmukh, L. Sirdeshmukh, K. G. Subhadra, C. S. Sunandana

Download now

Read Online 

Electrical, Electronic and Magnetic Properties of Solids (Springer Series in Materials Science) By D. B. Sirdeshmukh, L. Sirdeshmukh, K. G. Subhadra, C. S. Sunandana

This book about electrical, electronic and magnetic properties of solids gives guidance to understand the electrical conduction processes and magnetism in a whole range of solids: ionic solids, metals, semiconductors, fast-ion conductors and superconductors. The experimental discussion is enriched by related theories like the free electron theory and the band theory of solids. A large spectrum of topics is presented in this book: Hall effect, magnetoresistance, physics of semiconductors, functioning of semiconductor devices, fast-ion conduction, classical and modern aspects of superconductivity. The book explains the magnetic properties of solids and theoretical and experimental aspects of the various manifestations of magnetism, dia-, para-, ferro-, antiferro- and ferri-magnetism. The consideration of magnetic symmetry, magnetic structures and their experimental determination completes the spectrum of the book. Theories, techniques and applications of NMR and ESR complete the analytical spectrum presented. Some of these topics are not represented in standard books. Each topic is thoroughly treated. There are historical remarks and a discussion of the role of symmetry in the book. The book lays great emphasis on principles and concepts and is written in a comprehensive way. It contains much new information. This book complements an earlier book by the same authors (Atomistic properties of solids - Springer, 2011).

 [Download Electrical, Electronic and Magnetic Properties of ...pdf](#)

 [Read Online Electrical, Electronic and Magnetic Properties o ...pdf](#)

Electrical, Electronic and Magnetic Properties of Solids (Springer Series in Materials Science)

By D. B. Sirdeshmukh, L. Sirdeshmukh, K. G. Subhadra, C. S. Sunandana

Electrical, Electronic and Magnetic Properties of Solids (Springer Series in Materials Science) By D. B. Sirdeshmukh, L. Sirdeshmukh, K. G. Subhadra, C. S. Sunandana

This book about electrical, electronic and magnetic properties of solids gives guidance to understand the electrical conduction processes and magnetism in a whole range of solids: ionic solids, metals, semiconductors, fast-ion conductors and superconductors. The experimental discussion is enriched by related theories like the free electron theory and the band theory of solids. A large spectrum of topics is presented in this book: Hall effect, magnetoresistance, physics of semiconductors, functioning of semiconductor devices, fast-ion conduction, classical and modern aspects of superconductivity. The book explains the magnetic properties of solids and theoretical and experimental aspects of the various manifestations of magnetism, dia-, para-, ferro-, antiferro- and ferri-magnetism. The consideration of magnetic symmetry, magnetic structures and their experimental determination completes the spectrum of the book. Theories, techniques and applications of NMR and ESR complete the analytical spectrum presented. Some of these topics are not represented in standard books. Each topic is thoroughly treated. There are historical remarks and a discussion of the role of symmetry in the book. The book lays great emphasis on principles and concepts and is written in a comprehensive way. It contains much new information. This book complements an earlier book by the same authors (Atomistic properties of solids - Springer, 2011).

Electrical, Electronic and Magnetic Properties of Solids (Springer Series in Materials Science) By D. B. Sirdeshmukh, L. Sirdeshmukh, K. G. Subhadra, C. S. Sunandana Bibliography

- Sales Rank: #5675729 in Books
- Published on: 2014-10-20
- Original language: English
- Number of items: 1
- Dimensions: 9.21" h x 1.13" w x 6.14" l, .0 pounds
- Binding: Hardcover
- 508 pages

 [Download Electrical, Electronic and Magnetic Properties of ...pdf](#)

 [Read Online Electrical, Electronic and Magnetic Properties o ...pdf](#)

Editorial Review

Review

“This is an excellent book and gives very good fundamental knowledge for beginners in the field of solid-state physics. This book is written for bachelor’s and master’s level students in various disciplines, such as physics, materials sciences, and chemistry. ... the fundamentals of electrical, electronic, and magnetic materials are well discussed in this book. I strongly recommend this book to all undergraduate and postgraduate students interested in solid-state physics.” (K. Kamala Bharathi, MRS Bulletin, Vol. 40, July, 2015)

From the Back Cover

This book about electrical, electronic and magnetic properties of solids gives guidance to understand the electrical conduction processes and magnetism in a whole range of solids: ionic solids, metals, semiconductors, fast-ion conductors and superconductors. The experimental discussion is enriched by related theories like the free electron theory and the band theory of solids. A large spectrum of topics is presented in this book: Hall effect, magnetoresistance, physics of semiconductors, functioning of semiconductor devices, fast-ion conduction, classical and modern aspects of superconductivity. The book explains the magnetic properties of solids and theoretical and experimental aspects of the various manifestations of magnetism, dia-, para-, ferro-, antiferro- and ferri-magnetism. The consideration of magnetic symmetry, magnetic structures and their experimental determination completes the spectrum of the book. Theories, techniques and applications of NMR and ESR complete the analytical spectrum presented. Some of these topics are not represented in standard books. Each topic is thoroughly treated. There are historical remarks and a discussion of the role of symmetry in the book. The book lays great emphasis on principles and concepts and is written in a comprehensive way. It contains much new information. This book complements an earlier book by the same authors (Atomistic properties of solids - Springer, 2011).

About the Author

D.B. SIRDESHMUKH has more than three decades of experience in research, teaching and University administration. His research interests are in X-ray crystallography, crystal growth, mechanical properties of crystals and lattice dynamics. He has authored more than a hundred research papers including four review papers and two book contributions. He has coauthored four books on different aspects of solid state physics. He was at different times, Fulbright visiting Professor at the University of Rhode Island, Vice-President of The Andhra Pradesh Akademi of Sciences and Acting Vice-chancellor of the Kakatiya University.

L. SIRDESHMUKH obtained her Ph.D degree from the Osmania University. Her initial interest was in molecular spectroscopy. Her recent interests are in dielectric properties of materials. She has published about 80 research papers, co-authored three books and was the Guest Editor of Bulletin of Materials Science (now a Springer Journal). Mrs. Sirdeshmukh has more than 30 years of teaching experience. In 1993, she was chosen by the State Government as the best physics teacher in the Universities in Andhra Pradesh.

K.G. SUBHADRA took her Ph.D. from the Osmania University. Her main interest is in X-ray

crystallography. She has published over 60 research papers and has co-authored four books. She has won a few awards for her conference presentations. She has a long teaching experience of about 35 years. She officiated as the Chairperson of the

School of Physics and Dean, Faculty of Science at the Kakatiya University. She is a Fellow of the Andhra Pradesh Akademi of Science.

C.S. SUNANDANA obtained his Ph.D. Degree in Physics from the I.I.T. Madras. He is currently a Professor of Physics at the University of Hyderabad. His research interests include nanoionics, nanophotonics and fast ion conduction. He has published over 160 papers including 10 review papers. He has coauthored a book published by Lambert Publishers. Prof. Sunandana is on the Editorial Board of the Journal of Nanoenergy and Power Research (American Science Publishers). He is a member of the Materials Research Society of India and a Fellow of the Andhra Pradesh Akademi of Science.

Users Review

From reader reviews:

Barbara Spangler:

In this 21st millennium, people become competitive in every way. By being competitive right now, people have to do something to make these survive, being in the middle of the particular crowded place and notice through surrounding. One thing that oftentimes many people have underestimated it for a while is reading. Yeah, by reading a reserve your ability to survive enhance then having chance to endure than other is high. In your case who want to start reading a new book, we give you that Electrical, Electronic and Magnetic Properties of Solids (Springer Series in Materials Science) book as basic and daily reading reserve. Why, because this book is more than just a book.

Nathaniel Gonzalez:

Hey guys, do you wish to find a new book to see? Maybe the book with the concept Electrical, Electronic and Magnetic Properties of Solids (Springer Series in Materials Science) suitable to you? Often the book was written by renowned writer in this era. The actual book entitled Electrical, Electronic and Magnetic Properties of Solids (Springer Series in Materials Science) is one of several books that everyone reads now. This particular book was inspired a number of people in the world. When you read this reserve you will enter the new dimension that you never know ahead of. The author explained their plan in the simple way, thus all of people can easily be aware of the core of this e-book. This book will give you a large amount of information about this world now. So that you can see the represented of the world on this book.

Tia Sargent:

Don't be worry when you are afraid that this book can fill the space in your house, you may have it in e-book method, more simple and reachable. This kind of Electrical, Electronic and Magnetic Properties of Solids (Springer Series in Materials Science) can give you a lot of good friends because by you taking a look at this one book you have factor that they don't and make a person more like an interesting person. This kind of book can be one of one step for you to get success. This e-book offer you information that might be your

friend doesn't learn, by knowing more than additional make you to be great people. So , why hesitate? We need to have Electrical, Electronic and Magnetic Properties of Solids (Springer Series in Materials Science).

Robert McCauley:

Reading a publication make you to get more knowledge from it. You can take knowledge and information originating from a book. Book is written or printed or highlighted from each source this filled update of news. With this modern era like right now, many ways to get information are available for anyone. From media social similar to newspaper, magazines, science reserve, encyclopedia, reference book, new and comic. You can add your understanding by that book. Do you want to spend your spare time to spread out your book? Or just seeking the Electrical, Electronic and Magnetic Properties of Solids (Springer Series in Materials Science) when you essential it?

Download and Read Online Electrical, Electronic and Magnetic Properties of Solids (Springer Series in Materials Science) By D. B. Sirdeshmukh, L. Sirdeshmukh, K. G. Subhadra, C. S. Sunandana #DXJK5HMFG7N

Read Electrical, Electronic and Magnetic Properties of Solids (Springer Series in Materials Science) By D. B. Sirdeshmukh, L. Sirdeshmukh, K. G. Subhadra, C. S. Sunandana for online ebook

Electrical, Electronic and Magnetic Properties of Solids (Springer Series in Materials Science) By D. B. Sirdeshmukh, L. Sirdeshmukh, K. G. Subhadra, C. S. Sunandana 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 Electrical, Electronic and Magnetic Properties of Solids (Springer Series in Materials Science) By D. B. Sirdeshmukh, L. Sirdeshmukh, K. G. Subhadra, C. S. Sunandana books to read online.

Online Electrical, Electronic and Magnetic Properties of Solids (Springer Series in Materials Science) By D. B. Sirdeshmukh, L. Sirdeshmukh, K. G. Subhadra, C. S. Sunandana ebook PDF download

Electrical, Electronic and Magnetic Properties of Solids (Springer Series in Materials Science) By D. B. Sirdeshmukh, L. Sirdeshmukh, K. G. Subhadra, C. S. Sunandana Doc

Electrical, Electronic and Magnetic Properties of Solids (Springer Series in Materials Science) By D. B. Sirdeshmukh, L. Sirdeshmukh, K. G. Subhadra, C. S. Sunandana Mobipocket

Electrical, Electronic and Magnetic Properties of Solids (Springer Series in Materials Science) By D. B. Sirdeshmukh, L. Sirdeshmukh, K. G. Subhadra, C. S. Sunandana EPub