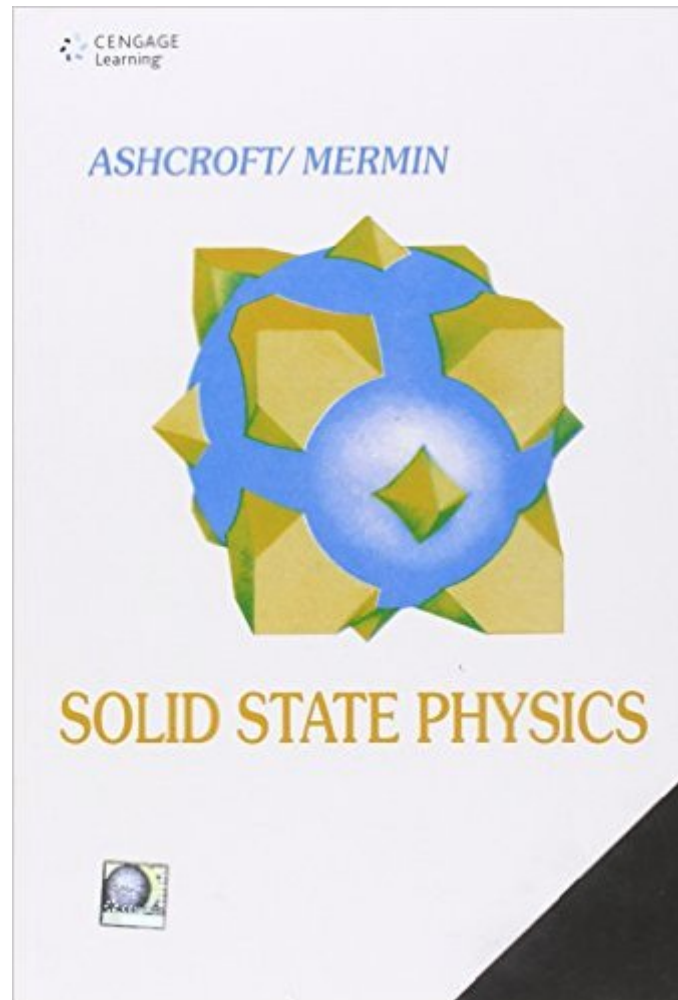


The book was found

Solid State Physics



Synopsis

This book provides a comprehensive introduction to the field of solid state physics for undergraduate students in physics, chemistry, engineering, and materials science. --This text refers to the Hardcover edition.

Book Information

Paperback: 848 pages

Publisher: Thomson Press (India) Ltd; 1 edition (December 1, 2003)

Language: English

ISBN-10: 8131500527

ISBN-13: 978-8131500521

Product Dimensions: 8.7 x 6.1 x 1.3 inches

Shipping Weight: 1.9 pounds

Average Customer Review: 4.0 out of 5 stars [See all reviews](#) (49 customer reviews)

Best Sellers Rank: #97,479 in Books (See Top 100 in Books) #19 in [Books > Science & Math > Physics > Solid-State Physics](#) #23 in [Books > Engineering & Transportation > Engineering > Electrical & Electronics > Electronics > Semiconductors](#) #258 in [Books > Textbooks > Science & Mathematics > Physics](#)

Customer Reviews

The Ashcroft text is superior to other Solid State texts because of its readability. It is not over-written like some texts, and its presentation of fundamentals is appropriate for a graduate course in solid state physics. It is not fair to under-rate the book simply because it is "old". Despite having several decades to write a better book, few authors have. There are advanced chapters toward the end of the book that lay the foundations for superconductivity and vibrations in solids, among other things. Like most physics books, the direct application of the physics to real world tools is an afterthought, as it took me 5 years of experience to finally realize that Ashcroft's treatment of phonons in later chapters could be used to describe the piezoelectric efficiency of acoustic sensors. Perhaps this is because the book is dated, or perhaps it is because many physics texts fail to make the link between consumer technologies and fundamental breakthroughs in understanding, as if it is beneath the moral integrity of physics to worry about the engineering that follows. The work in superconductivity is advanced for a typical solid state course and might be better for a special topics series, as it was when I was a graduate student. Ashcroft will serve as a good primer for most solid state topics, and it is well augmented with Kittel. A lesser book by Ibach and Luth, while it has just a

few positive qualities, will fail a student unless they have Ashcroft on hand. Between Ashcroft and Kittel, a student would have a strong reference library. As a side note, while it seems to be par for the course for most solid state texts, little is done to address the fundamentals of crystalline structure that have led to the growth and evolution of the field of materials science.

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