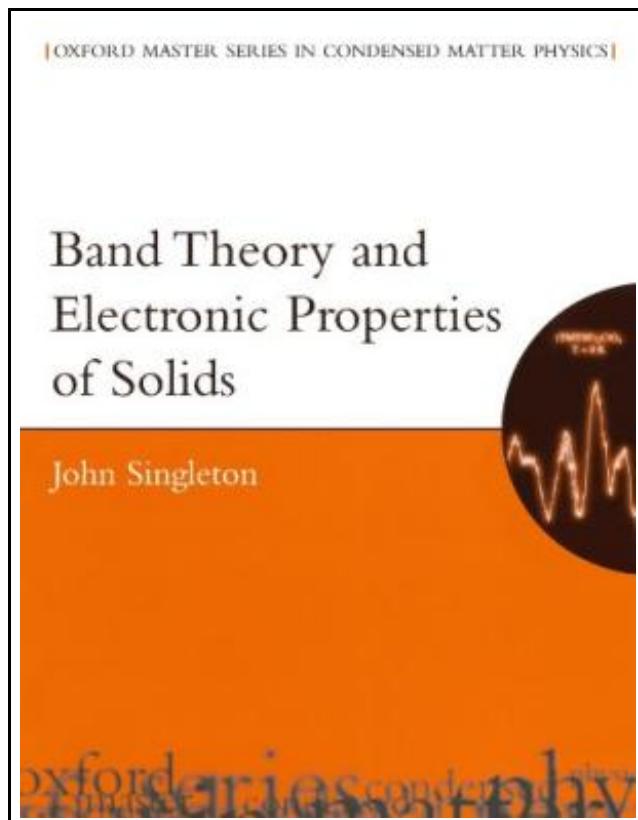


## Band Theory and Electronic Properties of Solids



Filesize: 9.66 MB

### Reviews

*I actually started out looking at this publication. it was actually written really perfectly and useful. Its been written in an extremely simple way and it is only soon after i finished reading through this pdf by which really modified me, change the way i really believe.*  
*(Breanna Kerluke)*

## BAND THEORY AND ELECTRONIC PROPERTIES OF SOLIDS

[DOWNLOAD PDF](#)

Oxford University Press, United Kingdom, 2001. Paperback. Book Condition: New. 246 x 186 mm. Language: English . Brand New Book. This book provides an introduction to band theory and the electronic properties of materials at a level suitable for final-year undergraduates or first-year graduate students. It sets out to provide the vocabulary and quantum-mechanical training necessary to understand the electronic, optical and structural properties of the materials met in science and technology and describes some of the experimental techniques which are used to study band structure today. In order to leave space for recent developments, the Drude model and the introduction of quantum statistics are treated synoptically. However, Bloch's theorem and two tractable limits, a very weak periodic potential and the tight-binding model, are developed rigorously and in three dimensions. Having introduced the ideas of bands, effective masses and holes, semiconductor and metals are treated in some detail, along with the newer ideas of artificial structures such as super-lattices and quantum wells, layered organic substances and oxides. Some recent hot topics in research are covered, e.g. the fractional Quantum Hall Effect and nano-devices, which can be understood using the techniques developed in the book. In illustrating examples of e.g. the de Haas-van Alphen effect, the book focuses on recent experimental data, showing that the field is a vibrant and exciting one. References to many recent review articles are provided, so that the student can conduct research into a chosen topic at a deeper level. Several appendices treating topics such as phonons and crystal structure make the book self-contained introduction to the fundamentals of band theory and electronic properties in condensed matter physics today.

[Read Band Theory and Electronic Properties of Solids Online](#)[Download PDF Band Theory and Electronic Properties of Solids](#)

## Related Kindle Books

---



### **TJ new concept of the Preschool Quality Education Engineering the daily learning book of: new happy learning young children (3-5 years) Intermediate (3)(Chinese Edition)**

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment.Paperback. Pub Date :2005-09-01 Publisher: Chinese children before making Reading: All books are the...

[Download Book »](#)

---



### **TJ new concept of the Preschool Quality Education Engineering the daily learning book of: new happy learning young children (2-4 years old) in small classes (3)(Chinese Edition)**

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment.Paperback. Pub Date :2005-09-01 Publisher: Chinese children before making Reading: All books are the...

[Download Book »](#)

---



### **Hands Free Mama: A Guide to Putting Down the Phone, Burning the To-Do List, and Letting Go of Perfection to Grasp What Really Matters!**

ZONDERVAN, United States, 2014. Paperback. Book Condition: New. 211 x 137 mm. Language: English . Brand New Book. Rachel Macy Stafford's post The Day I Stopped Saying Hurry Up was a true phenomenon on...

[Download Book »](#)

---



### **Decameron and the Philosophy of Storytelling: Author as Midwife and Pimp (Hardback)**

Columbia University Press, United States, 2005. Hardback. Book Condition: New. New.. 236 x 155 mm. Language: English . Brand New Book. In this creative and engaging reading, Richard Kuhns explores the ways in which Decameron...

[Download Book »](#)

---



### **After Such Knowledge: Memory, History, and the Legacy of the Holocaust**

PublicAffairs. PAPERBACK. Book Condition: New. 1586483048 12+ Year Old paperback book- Never Read-may have light shelf or handling wear-has a price sticker or price written inside front or back cover-publishers mark-Good Copy- I ship FAST with...

[Download Book »](#)