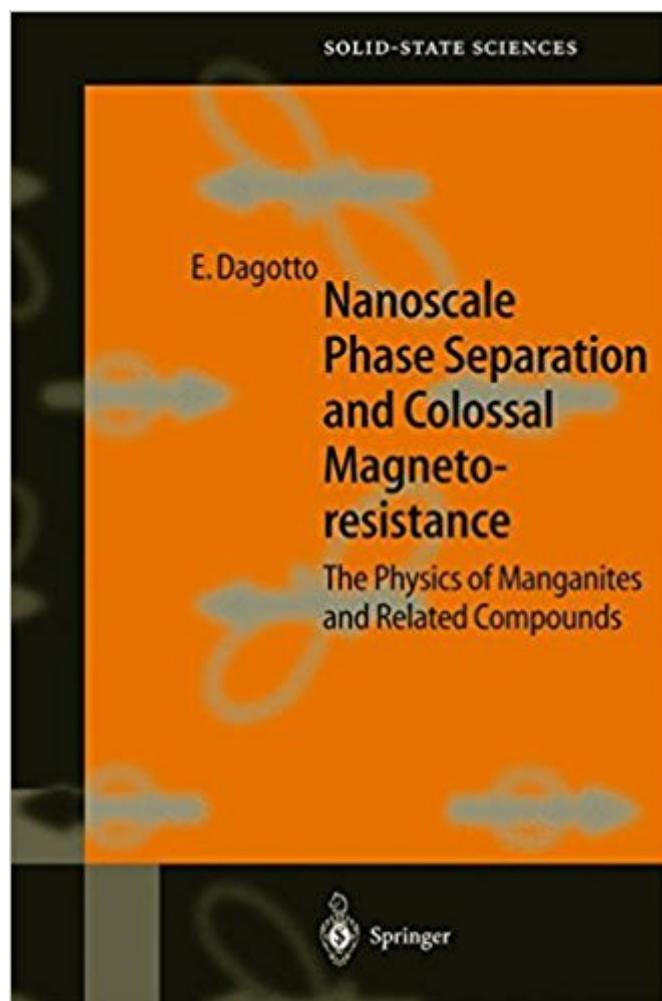


The book was found

Nanoscale Phase Separation And Colossal Magnetoresistance



Synopsis

The study of the spontaneous formation of nanostructures in single crystals of several compounds is now a major area of research in strongly correlated electrons. These structures appear to originate in the competition of phases. The book addresses nanoscale phase separation, focusing on the manganese oxides known as manganites that have the colossal magnetoresistance (CMR) effect of potential relevance for device applications. It is argued that the nanostructures are at the heart of the CMR phenomenon. The book contains updated information on manganite research directed to experts, both theorists and experimentalists. However, graduate students or postdocs will find considerable introductory material, including elements of computational physics.

Book Information

Series: Springer Series in Solid-State Sciences (Book 136)

Hardcover: 459 pages

Publisher: Springer; 2003 edition (January 17, 2003)

Language: English

ISBN-10: 3540432450

ISBN-13: 978-3540432456

Product Dimensions: 9.2 x 1.1 x 6.1 inches

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

Average Customer Review: Be the first to review this item

Best Sellers Rank: #1,239,540 in Books (See Top 100 in Books) #60 in Books > Engineering & Transportation > Engineering > Electrical & Electronics > Superconductivity #130 in Books > Science & Math > Physics > Electromagnetism > Magnetism #180 in Books > Science & Math > Physics > Nanostructures

Customer Reviews

From the reviews: "Dagotto has authored a fascinating book that comprehensively presents both the physical properties of manganites and our theoretical understanding of these unusual properties. The publishers have, as usual, produced a durable volume which is well bound, nicely typeset, and nicely illustrated with many useful figures. This is a volume that will prove useful for many years and that will also survive extensive use. As such it is highly recommended to the reader who wants an in-depth view of the manganites." (Gary J. Long and Fernande Grandjean, *Physicalia*, Vol. 57 (2), 2005) "The book of E. Dagotto, being an original introduction to the physics of manganites, is focused mainly on the problem of nanoscale phase

separation of these materials. The book provides a solid knowledge of the foundations of the correlation effects and the present status of the field. This book will be also of a great value for researchers already working in the field of strongly correlated systems as well as for those who are interested in new materials for the spintronics." (G. B.

Teitelbaum, Applied Magnetic Resonance, Vol. 24 (2), 2003)

The study of the spontaneous formation of nanostructures in single crystals is rapidly developing into a dominant field of research in the subject area known as strongly correlated electrons. The structures appear to originate in the competition of phases. This book addresses nanoscale phase separation, focusing on the manganese oxides with colossal magnetoresistance (CMR). The text argues that nanostructures are at the heart of the CMR phenomenon. Other compounds are also addressed, such as high-temperature superconductors, where similar nanostructures exist. Brief contributions by distinguished researchers are also included. The book contains updated information directed at experts, both theorists and experimentalists. Beginning graduate students or postdocs will also benefit from the introductory material of the early chapters, and the book can be used as a reference for an advanced graduate course.

[Download to continue reading...](#)

Nanoscale Phase Separation and Colossal Magnetoresistance Separation Anxiety: A Parent's Guide for Dealing with a Child's Separation Anxiety ~ (Separation Anxiety Disorder | Separation Anxiety in Children or Toddlers) Star Wars Miniatures AT-At Imperial Walker Colossal Pack (1 Colossal Figure & Battle Grid) PeriAnesthesia Nursing Core Curriculum: Preprocedure, Phase I and Phase II PACU Nursing, 2e PeriAnesthesia Nursing Core Curriculum: Preoperative, Phase I and Phase II PACU Nursing, 1e PeriAnesthesia Nursing Core Curriculum: Preprocedure, Phase I and Phase II PACU Nursing, 3e MEMS and Microsystems: Design, Manufacture, and Nanoscale Engineering Fabrication Engineering at the Micro- and Nanoscale (The Oxford Series in Electrical and Computer Engineering) Introduction to Nanoscale Science and Technology (Nanostructure Science and Technology) Nanoscale Energy Transport and Conversion: A Parallel Treatment of Electrons, Molecules, Phonons, and Photons (MIT-Pappalardo Series in Mechanical Engineering) Micro- and Nanoscale Fluid Mechanics: Transport in Microfluidic Devices Nanoscale Technology for Advanced Lithium Batteries (Nanostructure Science and Technology) Nanoscale CMOS VLSI Circuits: Design for Manufacturability No Small Matter: Science on the Nanoscale Too Good To Be True: The Colossal Book of Urban Legends (Revised and with a new chapter) The Colossal Book of

Mathematics: Classic Puzzles, Paradoxes, and Problems The Colossal Book of Short Puzzles and Problems
Brilliant Blunders: From Darwin to Einstein - Colossal Mistakes by Great Scientists That Changed Our Understanding of Life and the Universe
Giants!: A Colossal Collection of Tales and Tunes
Comic & Fantasy Artist's Photo Reference: Colossal Collection of Action Poses

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)