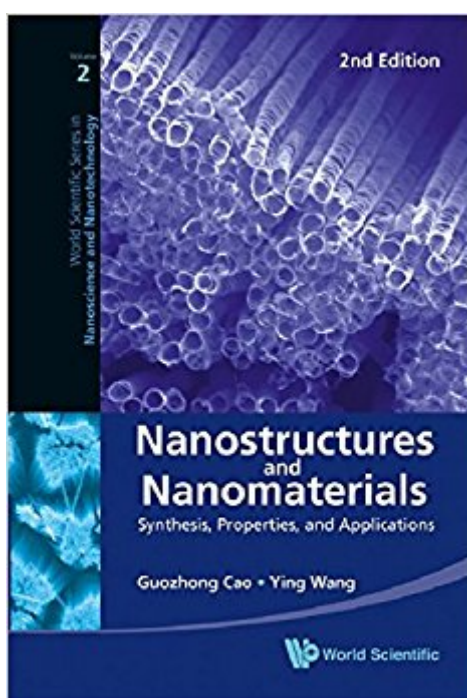


The book was found

Nanostructures And Nanomaterials: Synthesis, Properties, And Applications (2nd Edition) (World Scientific Series In Nanoscience And Nanotechnology)



Synopsis

This is the 2nd edition of the original "Nanostructures and Nanomaterials" written by Guozhong Cao and published by Imperial College Press in 2004. This important book focuses not only on the synthesis and fabrication of nanostructures and nanomaterials, but also includes properties and applications of nanostructures and nanomaterials, particularly inorganic nanomaterials. It provides balanced and comprehensive coverage of the fundamentals and processing techniques with regard to synthesis, characterization, properties, and applications of nanostructures and nanomaterials. Both chemical processing and lithographic techniques are presented in a systematic and coherent manner for the synthesis and fabrication of 0-D, 1-D, and 2-D nanostructures, as well as special nanomaterials such as carbon nanotubes and ordered mesoporous oxides. The book will serve as a general introduction to nanomaterials and nanotechnology for teaching and self-study purposes.

Book Information

Series: World Scientific Series in Nanoscience and Nanotechnology (Book 2)

Paperback: 596 pages

Publisher: World Scientific Publishing Company; 2 edition (January 3, 2011)

Language: English

ISBN-10: 9814324558

ISBN-13: 978-9814324557

Product Dimensions: 6 x 1.2 x 9 inches

Shipping Weight: 1.9 pounds (View shipping rates and policies)

Average Customer Review: 4.1 out of 5 stars 14 customer reviews

Best Sellers Rank: #88,944 in Books (See Top 100 in Books) #8 in [Books > Science & Math > Technology > Nanotechnology](#) #20 in [Books > Science & Math > Physics > Nanostructures](#) #94 in [Books > Engineering & Transportation > Engineering > Materials & Material Science > Materials Science](#)

Customer Reviews

"This book does an excellent job of assembling a wide variety of synthetic techniques and describing how they can be applied to a range of materials for design on the nanoscale. The references range from the classic to the very recent, giving a broad perspective of the area, and an index provides cross-referencing." -- Acta Physica Slovaca "This book can be recommended to both students and researchers. It gives the basic information on fabrication and properties of nanostructures in a coherent way ... The relatively large number of figures makes the understanding

of the subject easier. The reader has to also appreciate the extended list of references for each chapter ..." --Journal of the American Chemical Society" This book can be recommended to both students and researchers. It gives the basic information on fabrication and properties of nanostructures in a coherent way ... The relatively large number of figures makes the understanding of the subject easier. The reader has to also appreciate the extended list of references for each chapter ..." --Journal of the American Chemical Society

This is the 2nd edition of the original "Nanostructures and Nanomaterials" written by Guozhong Cao and published by Imperial College Press in 2004. This important book focuses not only on the synthesis and fabrication of nanostructures and nanomaterials, but also includes properties and applications of nanostructures and nanomaterials, particularly inorganic nanomaterials. It provides balanced and comprehensive coverage of the fundamentals and processing techniques with regard to synthesis, characterization, properties, and applications of nanostructures and nanomaterials. Both chemical processing and lithographic techniques are presented in a systematic and coherent manner for the synthesis and fabrication of 0-D, 1-D, and 2-D nanostructures, as well as special nanomaterials such as carbon nanotubes and ordered mesoporous oxides. The book will serve as a general introduction to nanomaterials and nanotechnology for teaching and self-study purposes.

Many books in this area are too concerned with the nano hype and less focused on the science behind it. Others present several chapters, each written by a specific set of authors, that are not necessarily correlated and seem more like a collection of review papers instead of a book. In this context, in my opinion, this book is one of the best books covering the subject (together with ozin's nano chemistry). It covers the real fundamentals and the science that drives the field together with current relevant advances and applications. The only negative aspect of the book is the illustrations, that could be colored and more eye-catching....I was hoping for that in this new edition...Even then, I will give it 5 stars...

There are so many typos in this book. It's clear the authors are not native English speakers and that the book never got edited by anyone (or if it did, they did a terrible job). However, it does provide a great overview of nanomaterials (like how they are synthesized and characterized) and is an easy read.

Product as described

This book is intended to give an overview to those entering the field on how to fabricate nanostructures and their underlying chemistry. The main focus is on the fundamentals such as synthesis and fabrication and covers a large range of topics: nanoparticles, nanowires, nanorods, thin films, and carbon nanotubes as well as a diverse range of patterning techniques (AFM, self-assembly through conventional lithographic techniques). The last chapter of about 20 pages on applications is a bit short and only gives a general feel. The book should be suitable to both advanced undergrads or grad. students in chemistry, material science, physics, and EE. I myself found it quite accessible for self-study. I especially liked the first ~50 pages explaining the fundamentals such as surface chemistry and excellent explanation of surface tension.

Well-organized book that is good for introducing a person to the subject. Not always the most clear writing though. And there were a lot of grammatical mistakes.

Many errors with grammar, convoluted at certain points. Overall used my lecture notes as opposed to this book. Informative at times though, just a major bother to follow.

This book is beneficial for my study in Nanotechnology.

looks like a good book

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

Nanostructures and Nanomaterials: Synthesis, Properties, and Applications (2nd Edition) (World Scientific Series in Nanoscience and Nanotechnology) Nanostructures & Nanomaterials: Synthesis, Properties & Applications Nanomaterials: An Introduction to Synthesis, Properties and Applications Nanostructures and Nanotechnology Nanotechnology Risk Encyclopedia: Medical, Environmental, Ethical, Legal, and Societal Implications of Nanomaterials Nanophysics and Nanotechnology: An Introduction to Modern Concepts in Nanoscience (No Longer Used) Introduction to Nanoscience and Nanotechnology A Laboratory Course in Nanoscience and Nanotechnology Handbook of Reagents for Organic Synthesis: Reagents for Heteroarene Synthesis (Hdbk of Reagents for Organic Synthesis) Molecular Driving Forces: Statistical Thermodynamics in Biology, Chemistry, Physics, and Nanoscience, 2nd Edition 2nd edition by Ken A. Dill, Sarina Bromberg (2010) Paperback Carbon Nanotubes: Advanced Topics in the Synthesis, Structure, Properties and Applications (Topics in Applied Physics) The Viologens: Physicochemical Properties, Synthesis and

Applications of the Salts of 4,4'-Bipyridine Nanomaterials for Lithium-Ion Batteries: Fundamentals and Applications Sliding Friction: Physical Principles and Applications (NanoScience and Technology) Polymer Nanocomposites: Processing, Characterization, And Applications (McGraw-Hill Nanoscience and Technology) Molecular Driving Forces: Statistical Thermodynamics in Biology, Chemistry, Physics, and Nanoscience, 2nd Edition The Organic Chemistry of Drug Synthesis, Volume 3 (Organic Chemistry Series of Drug Synthesis) Ultraviolet nanoimprint lithography: Fabrication of ordered nanostructures, integrated optics and electronic devices Graphene-based Materials in Health and Environment: New Paradigms (Carbon Nanostructures) Quantum Mechanics for Nanostructures

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)