



# Nanophysics and Nanotechnology: An Introduction to Modern Concepts in Nanoscience

By Wolf, Edward L.

Wiley-VCH, 2006. Book Condition: New. Brand New, Unread Copy in Perfect Condition. A+ Customer Service! Summary: Preface. Preface to 1st Edition. 1. Introduction. 1.1 Nanometers, Micrometers, Millimeters. 1.2 Moore's Law. 1.3 Esaki's Quantum Tunneling Diode. 1.4 Quantum Dots of Many Colors. 1.5 GMR 100Gb Hard Drive "Read" Heads. 1.6 Accelerometers in your Car. 1.7 Nanopore Filters. 1.8 Nanoscale Elements in Traditional Technologies. 2. Systematics of Making Things Smaller, Pre-quantum. 2.1 Mechanical Frequencies Increase in Small Systems. 2.2 Scaling Relations Illustrated by a Simple Harmonic Oscillator. 2.3 Scaling Relations Illustrated by Simple Circuit Elements. 2.4 Thermal Time Constants and Temperature Differences Decrease. 2.5 Viscous Forces Become Dominant for Small Particles in Fluid Media. 2.6 Frictional Forces can Disappear in Symmetric Molecular Scale Systems. 3. What are Limits to Smallness? 3.1 Particle (Quantum) Nature of Matter: Photons, Electrons, Atoms, Molecules. 3.2 Biological Examples of Nanomotors and Nanodevices. 3.2.1 Linear Spring Motors. 3.2.2 Linear Engines on Tracks. 3.2.3 Rotary Motors. 3.2.4 Ion Channels, the Nanotransistors of Biology. 3.3 How Small can you Make it? 3.3.1 What are the Methods for Making Small Objects? 3.3.2 How Can you See What you Want to Make? 3.3.3 How Can you Connect it to the Outside World? 3.3.4 If you Can't See it or Connect to it, Can you Make it Self-assemble and Work on its Own? 3.3.5 Approaches to Assembly of Small Three-dimensional Objects. 3.3.6 Use of DNA Strands in...

## Reviews

*This publication is definitely worth buying. It can be loaded with wisdom and knowledge I am easily could possibly get a satisfaction of looking at a composed publication.*

-- **Rhiannon Steuber**

*Very helpful to all type of individuals. It really is rally interesting throgh looking at time. Its been designed in an extremely basic way which is just soon after i finished reading this pdf through which basically modified me, change the way i believe.*

-- **Tyshawn Brekke**

## See Also



### **Grandpa Spanielson's Chicken Pox Stories: Story #1: The Octopus (I Can Read Book 2)**

HarperCollins, 2005. Book Condition: New. Brand New, Unread Copy in Perfect Condition. A+ Customer Service! Summary: Foreword by Raph Koster. Introduction. I. EXECUTIVE CONSIDERATIONS. 1. The Market. Do We Enter the Market? Basic Considerations. How and Which Niche? Market Analysis: Who Are...



### **Star Flights Bedtime Spaceship: Journey Through Space While Drifting Off to Sleep**

CreateSpace Independent Publishing Platform, 2013. Book Condition: New. Brand New, Unread Copy in Perfect Condition. A+ Customer Service! Summary: "Star Flights Bedtime Spaceship" is a charming and fun story with the purpose to help children unwind and go to sleep. The underlying...



### **The Web Collection Revealed, Premium Edition: Adobe Dreamweaver CS6, Flash CS6, and Photoshop CS6 (Stay Current with Adobe Creative Cloud)**

Cengage Learning, 2012. Book Condition: New. Brand New, Unread Copy in Perfect Condition. A+ Customer Service! Summary: You can now maximize and integrate the design and development power of Adobe Creative Suite 6 with WEB COLLECTION REVEALED PREMIUM EDITION. This one of...



### **Maisy's Christmas Tree**

Candlewick, 2014. Book Condition: New. Brand New, Unread Copy in Perfect Condition. A+ Customer Service! Summary: The final scene of the gang caroling around the tree, complete with paper crowns from British Christmas crackers, is delightful. Toddlers celebrating the holiday will enjoy...



### **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 Youth Pre-employment Training software download generated pictures...



### **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 Youth Pre-employment Training software download generated pictures...