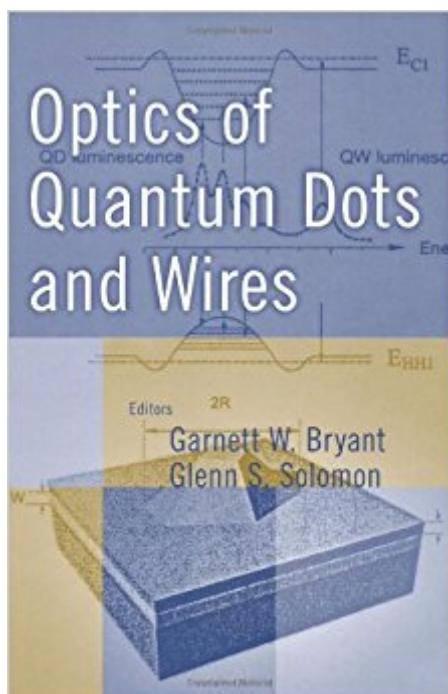


The book was found

# Optics Of Quantum Dots And Wires (Artech House Solid-State Technology Library)



## **Synopsis**

Quantum technology is the key to next-generation fiber optic and laser equipment. This cutting-edge book is an in-depth examination of how this groundbreaking technology is being manufactured and used in optical devices. A panel of leading experts has been assembled to discuss practical design and application issues as well as vanguard research. The book presents a solid tutorial that brings optics and material engineers quickly up to speed on the optical properties of quantum dots and wires. It includes a detailed survey of current fabrication techniques, placing special focus on bottom-up growth methods that have the most potential for fabricating atomically precise structures.

## **Book Information**

Series: Artech House Solid-State Technology Library

Hardcover: 570 pages

Publisher: Artech House Publishers (December 13, 2004)

Language: English

ISBN-10: 1580537618

ISBN-13: 978-1580537612

Product Dimensions: 6.3 x 1.3 x 9.3 inches

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

Average Customer Review: 5.0 out of 5 stars 2 customer reviews

Best Sellers Rank: #700,886 in Books (See Top 100 in Books) #25 in Books > Engineering & Transportation > Engineering > Electrical & Electronics > Electronics > Solid State #42 in Books > Engineering & Transportation > Engineering > Electrical & Electronics > Electronics > Optoelectronics #192 in Books > Engineering & Transportation > Engineering > Industrial, Manufacturing & Operational Systems > Industrial Technology

## **Customer Reviews**

Garnett W. Bryant is a physicist with the National Institute of Standards and Technology. He holds a Ph.D. in physics from Indiana University and a B.S. in physics for the University of Kentucky. Glenn S. Solomon is an assistant professor at Stanford University. He holds a Ph.D. in material science and engineering and a M.S.E. in electrical engineering both from Stanford University.

In the late 1970's the physics and engineering came together to enable the construction of a new generation of optoelectronic devices with enhanced performance such as the quantum well lasers. The physical theory said that this could be done and the mechanical assembly of semiconductors

using the epitaxial growth of planar structures which enabled monolayer thickness made the devices practical. Enhancement of the techniques since has driven down the price of components dramatically downward (the low price of CD-ROM readers and players is the result). While the thickness of the layers has been easy to control, the other two dimensions has proven much more difficult. In the past few years, new techniques have come into being that offer great promise in the fabrication of devices that are not planer (two dimensional) but linear (one dimensional - a wire) or even a single dot (of almost no dimension). This book, edited by Dr. Glenn Solomon of Stanford and Dr. Garnett Bryant of NIST researchers from around the world have contributed chapters that cover the state of the art in how quantum dots and wires are fabricated and applied to optics. This is as cutting-edge a book on the subject as is possible to put together today.

An excellent source of information pertaining to design, fabrication, and testing of quantum dot structures. It includes detailed explanation of the phenomenon that is responsible for the quantum effects. This is what I have been searching for and I am glad I got it! If you deal with Quantum Wells, Dots, Wires and work in the nano-tech field with lasers, modulators, LEDS etc, dont think twice about grabbing this book!

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

Optics of Quantum Dots and Wires (Artech House Solid-State Technology Library) Handbook of Optics, Third Edition Volume V: Atmospheric Optics, Modulators, Fiber Optics, X-Ray and Neutron Optics Handbook of Optics, Third Edition Volume IV: Optical Properties of Materials, Nonlinear Optics, Quantum Optics (set) The Floridas: The Sunshine State \* The Alligator State \* The Everglade State \* The Orange State \* The Flower State \* The Peninsula State \* The Gulf State Photonics Rules of Thumb: Optics, Electro-Optics, Fiber Optics and Lasers Generalized Filter Design by Computer Optimization (Artech House Microwave Library (Hardcover)) Ew 101: A First Course in Electronic Warfare (Artech House Radar Library (Hardcover)) Semiconductors for Solar Cells (Artech House Optoelectronics Library) Introduction to Semiconductor Device Yield Modeling (Artech House Materials Science Library) Optical Fiber Communication Systems (Artech House Optoelectronics Library) An Introduction to U.S. Telecommunications Law, Second Edition (Artech House Telecommunications Library) Integrated Microwave Front-Ends with Avionics Applications (Artech House Microwave Library (Hardcover)) Advanced Molecular Quantum Mechanics: An Introduction to Relativistic Quantum Mechanics and the Quantum Theory of Radiation (Studies in Chemical Physics) Principles and Analysis of Aigaas/GAAS Heterojunction Bipolar Transistors (Solid State Technology & Devices Library) Tiny Houses: Minimalistâ™s Tiny House Living (Floor

Plans Included) (tiny house construction,tiny homes,tiny house design,small houses,small homes,tiny house building,tiny house lifestyle,micro homes) House Plants: A Guide to Keeping Plants in Your Home (House Plants Care, House Plants for Dummies, House Plants for Beginners, Keeping Plants in Your Home, DIY House Plants Book 1) Simulation and Software Radio for Mobile Communications (Artech House Universal Personal Communications) Security, Rights, & Liabilities in E-Commerce (Artech House Computer Security Series) Handbook of Optics, Third Edition Volume I: Geometrical and Physical Optics, Polarized Light, Components and Instruments(set) Molded Optics: Design and Manufacture (Series in Optics and Optoelectronics)

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)