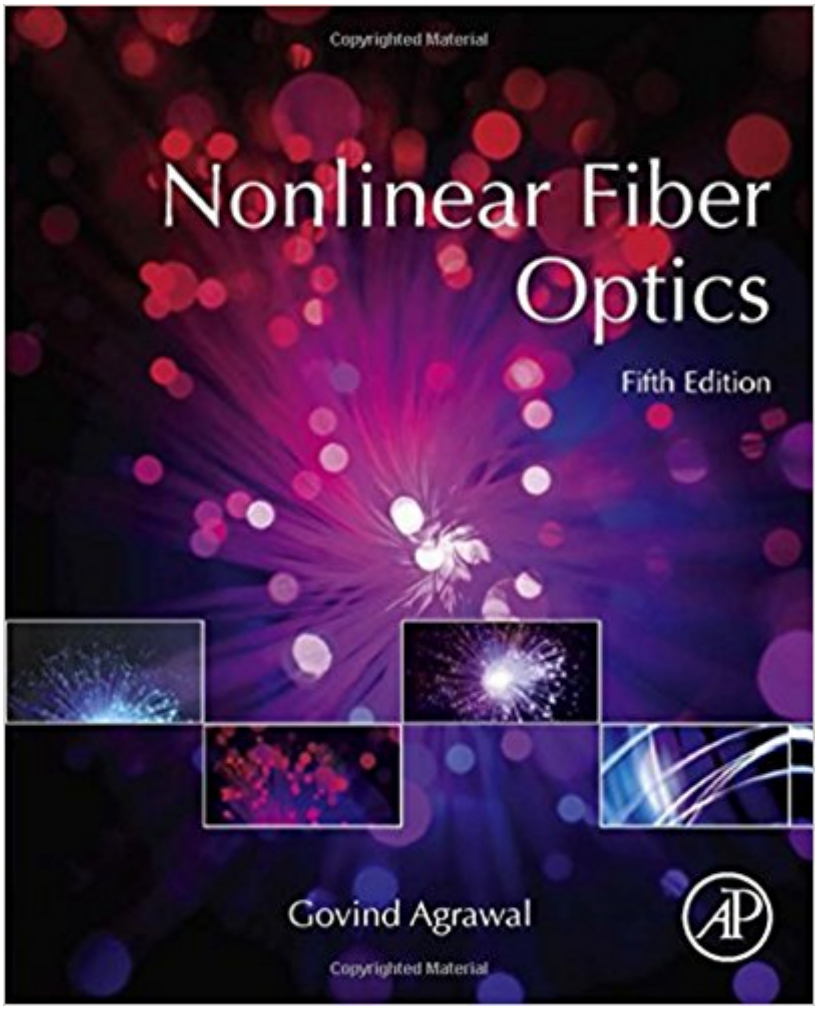
Nonlinear Fiber Optics, Fifth Edition (Optics And Photonics)



Synopsis

Since the 4e appeared, a fast evolution of the field has occurred. The 5e of this classic work provides an up-to-date account of the nonlinear phenomena occurring inside optical fibers, the basis of all our telecommunications infastructure as well as being used in the medical field. Reflecting the big developments in research, this new edition includes major new content: slow light effects, which offers a reduction in noise and power consumption and more ordered network traffic-stimulated Brillouin scattering; vectorial treatment of highly nonlinear fibers; and a brand new chapter on supercontinuum generation in optical fibers. Continues to be industry bestseller providing unique source of comprehensive coverage on the subject of nonlinear fiber optics Updated coverage of intrapulse Raman scattering, four-wave mixing, and Harmonic Generation Includes a new chapter excusively devotedÂ to supercontinuum generation in optical fibers

Book Information

Series: Optics and Photonics
Hardcover: 648 pages
Publisher: Academic Press; 5 edition (October 24, 2012)
Language: English
ISBN-10: 0123970237
ISBN-13: 978-0123970237
Product Dimensions: 7.5 x 1.5 x 9.3 inches
Shipping Weight: 3.5 pounds (View shipping rates and policies)
Average Customer Review: 5.0 out of 5 stars 1 customer review
Best Sellers Rank: #1,425,995 in Books (See Top 100 in Books) #50 inÂ Books > Engineering & Transportation > Engineering > Electrical & Electronics > Fiber Optics #553 inÂ Books > Science & Math > Physics > Optics #4113 inÂ Books > Computers & Technology > Networking & Cloud Computing > Internet, Groupware, & Telecommunications

Customer Reviews

Taking into account recent research on polarization, additions have been made to chapters on stimulated Raman scattering and four-wave mixing. Targeted for optical engineers, researchers, scientist and graduate students, the 549-page volume addresses pulse propagation in fibers.-Photonics Spectra, january 2007

Govind P. Agrawal was born on July 24, 1951 in the town of Kashipur of the Nainital district in U.P.

He received his B.Sc. degree from the University of Lucknow in 1969 with honors. He was awarded a gold medal for achieving the top position in the university. Govind joined the Indian Institute of Technology at New Delhi in 1969 and received the M.Sc. and Ph.D. degrees in 1971 and 1974, respectively.After holding positions at the Ecole Polytechnique (France), the City University of New York, and the Laser company, Quantel, Orsay, France, Dr. Agrawal joined in 1981 the technical staff of the world-famous AT&T Bell Laboratories, Murray Hill, N.J., USA, where he worked on problems related to the development of semiconductor lasers and fiber-optic communication systems. He joined in 1989 the faculty of the Institute of Optics at the University of Rochester where he is a Professor of Optics. His research interests focus on quantum electronics, nonlinear optics, and optical communications. In particular, he has contributed signnificantly to the fields of semiconductor lasers, nonlinear fiber optics, and optical communications. He is an author or coauthor of more than 250 research papers, several book chapters and review articles, and four books entitled "Semiconductor Lasers" (Van Nostrand Reinhold, 2nd ed. 1993), "Nonlinear Fiber Optics" (Academic Press, 3rd ed. 2001), "Fiber-Optic Communication Systems" (Wiley, 2nd ed. 1997), and "Applications of Nonlinear Fiber Optics" (Academic Press, 2001). He has also edited the books "Contemporary Nonlinear Optics" (Academic Press, 1992) and "Semiconductor Lasers: Past, Present and Future" (AIP Press, 1995). The books authored by Dr. Agrawal have influenced an entire generation of scientists. Several of them have been translated into Chinese, Japanese, Greek, and Russian.

In a sense I purchased this book by mistake as my interests lie in the field of second harmonic generation and other second order effects and I thought this text would deal with that where it actually doesn’t. This text is focused on third order effects but thats ok for me, more for me to learn and certainly no criticism of the book. Its a hefty text and will take some time to work through.

and Photonics) Optical Fiber Telecommunications Volume VIB: Systems and Networks (Optics and Photonics) Resistant Starch: The Resistant Starch Bible: Resistant Starch - Gut Health, Fiber, Gut Balance (Gut Balance, Glycemic, Natural Antibiotics, Dietary Fiber, SIBO, Soluble FIber, Healthy Gut Book 1) Foods High in Fiber Cookbook: List of High Fiber Foods for a Healthy Lifestyle - Recipes for High Fiber Foods Fiber to the Antenna: Fiber Optics Workshop Fundamentals of Optical Waveguides, Second Edition (Optics and Photonics Series) Photonic Interconnects for Computing Systems: Understanding and Pushing Design Challenges (River Publishers Series in Optics and Photonics) Handbook of Silicon Photonics (Series in Optics and Optoelectronics) Fundamentals of Photonics (Wiley Series in Pure and Applied Optics) Digital Optical Communications (Optics and Photonics) Advances in Chemical Physics: Modern Nonlinear Optics, Volume 119, Part 2, 2nd Edition Advances in Chemical Physics: Modern Nonlinear Optics, Volume 119, Part 1, 2nd Edition Advances in Chemical Physics: Modern Nonlinear Optics, Volume 119, Part 3, 2nd Edition An Introduction to Nonlinear Optics