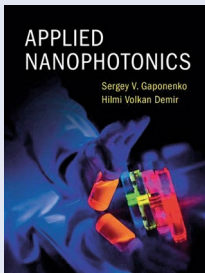


Integrated Nanophotonic Devices

By Zeev Zalevsky and Ibrahim Abdulhalim

ELSEVIER: 2018. 336PP. US\$140.00.

Nanointegrated photonic modulation devices and sensors are the components that will bring nanophotonics out of the lab into a new generation of products and services. Aiming to be comprehensive to readers from a broad range of scientific backgrounds, this book introduces the scientific principles of integrated nanophotonic devices and details application-based approaches for the design, fabrication and experimentation of integrated photonic modulation circuits. In this second edition, all chapters have been expanded and updated to reflect this rapidly advancing field, with a newly added chapter to cover liquid crystals integrated with nanostructures.

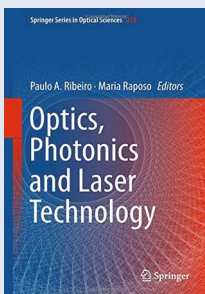


Applied Nanophotonics

By Sergey V. Gaponenko and Hilmi Volkan Demir

CAMBRIDGE UNIVERSITY PRESS: 2018. 440PP. £64.99.

Composed of 12 chapters, this text is divided into two parts: the first introduces the basic principles, and the second provides details on technology, applications of nanophotonics and the challenges ahead. Topics covered are electrons in potential wells and in solids, quantum confinement effects in semiconductors, light waves in restricted geometries, spontaneous emission of photons and lifetime engineering, stimulated emission and lasing, energy transfer processes, lighting with nanostructures, lasers, photonic circuitry, photovoltaics, and emerging nanophotonics. This book also discusses the fundamentals of semiconductor optics, optical material properties, light propagation, colloidal photonics, silicon-based photonics, nanoplasmonics, and bioinspired photonics.

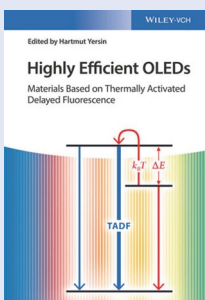


Optics, Photonics and Laser Technology

Edited by Paulo A. Ribeiro and Maria Raposo

SPRINGER: 2018. 246PP. US\$149.99.

This book addresses optical instrumentation and metrology, photonic and optoelectronic materials and devices, nanophotonics, organic and bio-photonics, and high-field phenomena. It contains 11 chapters covering a diverse range of topics, including fluorescence and scattering microscopy, digital holographic interferometric microscopes, CMOS silicon photomultiplier development, coherent hemodynamics spectroscopy and photochromic materials towards energy harvesting.



Highly Efficient OLEDs

Edited by Hartmut Yersin

WILEY: 2018. 608PP. £165.00.

This title provides detailed information on the working principle of organic light-emitting diodes (OLEDs) and on new types of organic and inorganic emitting materials. It explores the application of new thermally activated delayed fluorescence (TADF) materials on the development of efficient OLED displays and lighting systems. OLEDs that use the singlet-harvesting mechanism based on the molecular property of TADF work according to a new exciton harvesting principle. For this reason, low-cost emitter materials, such as Cu(I) or Ag(I) complexes, and metal-free organic molecules have the potential to replace high-cost rare metal complexes currently applied in OLED technology. This book will be useful for materials scientists, solid-state chemists, solid-state physicists and electronics engineers.

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