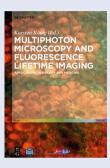
books & arts



Laser Printing of Functional Materials

Edited by Alberto Piqué and Pere Serra WILEY: 2018. 480PP. US\$215.

Organized into 18 chapters, this text first introduces the concept, principles and origin of laser transfer of materials. It then progresses to discuss the types of material that can be processed by laser-induced forward transfer (LIFT) including metals, ceramics, polymers, fluids and soft materials. Finally, it covers the various applications of laser printing including the printing of nanoparticles, 3D structures, electronic materials (semiconductor, dielectric and conducting layers), as well as proteins, biomaterials and cells for tissue engineering.



Multiphoton Microscopy and Fluorescence Lifetime Imaging

Edited by Karsten König

DE GRUYTER: 2018. 421PP. £98.99.

Serving as an introduction to nonlinear microscopy of cells and biological tissue, this monograph is divided into three main parts. Part one provides a brief history of fluorescence lifetime imaging (FLIM) and its evolution. Part two describes the advent of stimulated emission depletion (STED) microscopy, wide-field two-photon microscopy, cryomultiphoton imaging and advanced forms of FLIM imaging as well as femtosecond laser nanoprocessing. Finally, part three covers the medical applications of multiphoton microscopy for imaging of human skin, the brain, the cornea, and cancerous cells and tissue.

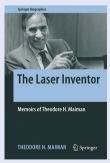


Springer Series in Light Scattering: Volumes 1 and 2

Edited by Alexander Kokhanovsky

SPRINGER: 2018. 363PP and 299PP. £120 (each volume).

Composed of two separate volumes dedicated to the topic of light scattering, this series aims to provide a better understanding of light scattering phenomena in various random media and the associated theories, techniques and applications. Volume 1 consists of five chapters explaining the vector radiative transfer equation, multiple scattering of light, models of trace gas and cloud properties, the application of neural networks to cloud sensing and the stereogrammatic shapes of mineral dust particles. Volume 2 features six chapters covering optically active light scattering media, advances in spectro-polarimetric light scattering, light scattering by large bubbles, the scattering function of seawater, remote sensing of ice clouds, and the role of light scattering in combustion processes.



The Laser Inventor

By Theodore H. Maiman

SPRINGER: 2018. 312PP. €36.39.

As part of Springer's Biography series, this book is an updated version of Ted Maiman's memoirs (first published in 2001 under the title *Laser Odyssey*) describing the history and events that led up to his demonstration of the ruby laser at Hughes Research Laboratories in the US in 1960. Featuring new photographs and documents, the book provides a fascinating portrayal of Maiman's early life and the various myths, patent wrangles, scientific battles, media reaction and awards that are associated with the experimental demonstration of the first laser.

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