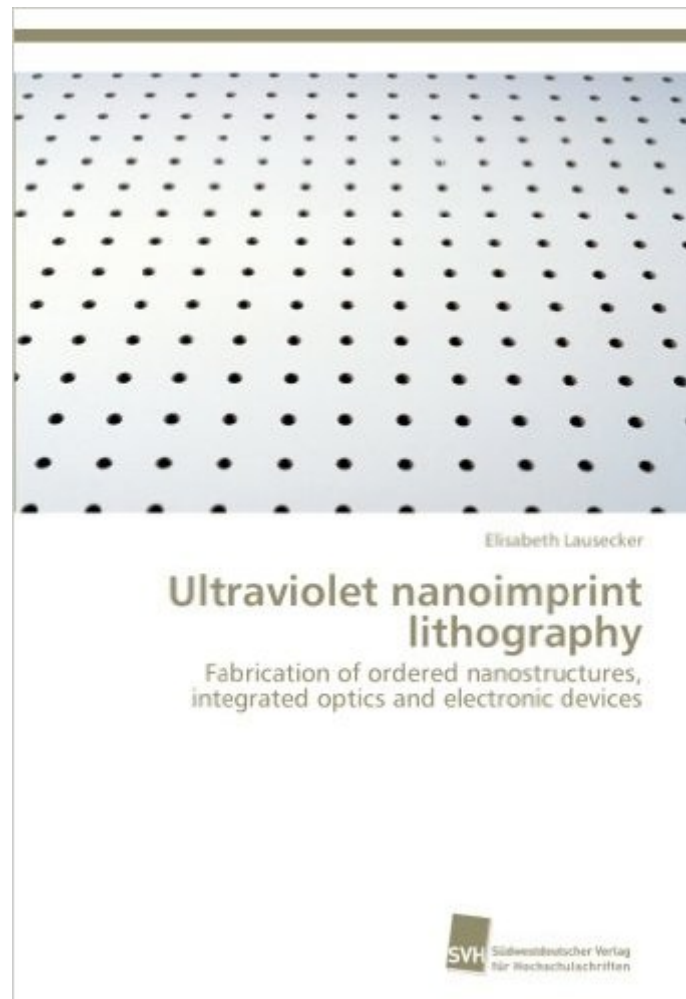


The book was found

Ultraviolet Nanoimprint Lithography: Fabrication Of Ordered Nanostructures, Integrated Optics And Electronic Devices



Synopsis

Nanoimprint lithography (NIL) is a lithographic technique that allows the patterning of substrates with nanostructures over large areas with high density. NIL relies on the simplicity of mechanically deforming a polymeric resist layer by a patterned mold. The author gives a detailed introduction to NIL and developed ultraviolet NIL for the pit-patterning of substrate surfaces. By combining the self-assembled growth of silicon-germanium (SiGe) islands by molecular-beam epitaxy with the pit-patterning of the Si substrate, an ordering of the islands is achieved. Both, a position-control of the SiGe islands and an improvement of their homogeneity and emission efficiency is accomplished. Moreover, the work towards integrating these ordered SiGe islands into a two-dimensional photonic crystal slab was pursued, demanding a second imprinted layer precisely aligned to the first one. Finally, self-aligned imprint lithography was developed at Princeton University, USA, for the fabrication of the first top-gate amorphous Si thin-film transistor. The book contains detailed descriptions of executed process steps.

Book Information

Paperback: 276 pages

Publisher: SÃfÃ dwestdeutscher Verlag fÃfÃ r Hochschulschriften (September 12, 2012)

Language: English

ISBN-10: 3838130804

ISBN-13: 978-3838130804

Product Dimensions: 5.9 x 0.6 x 8.7 inches

Shipping Weight: 13.4 ounces (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #8,045,531 in Books (See Top 100 in Books) #88 inÂ Books > Arts &

Photography > Graphic Design > Lithography #19993 inÂ Books > Textbooks > Science &

Mathematics > Physics #86710 inÂ Books > Science & Math > Physics

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

Ultraviolet nanoimprint lithography: Fabrication of ordered nanostructures, integrated optics and electronic devices Nanoimprint Lithography: Principles, Processes and Materials (Novinka)

Semiconductor Nanostructures: Quantum states and electronic transport Extreme Ultraviolet

Lithography Last-Minute Optics: A Concise Review of Optics, Refraction, and Contact Lenses

Introduction to Microelectronic Fabrication: Volume 5 of Modular Series on Solid State Devices (2nd Edition) How to Start a Electronic Record Label: Never Revealed Secrets of Starting a Electronic

Record Label (Electronic Record Label Business Guide): How to ... a Eletr Record Label: Never Revealed Secret Micromirror Technology for Maskless Lithography: Dynamics, Control and Fabrication Spatial Light Modulators and Applications: Spatial Light Modulators for Applications in Coherent Communication, Adaptive Optics and Maskless Lithography On the linkage of solar ultraviolet radiation to skin cancer: Final report Electronic Devices and Circuit Theory (11th Edition) Electronic Devices and Circuit Theory (8th Edition) Electronic Devices in Schools (Issues That Concern You) Colour printing. A practical Demonstration of Colour Printing by Letterpress, photo-offset, Lithography and Drawn Lithography with illustrations demonstrating alternative methods of production and including a comprehensive colour chart. Lithography; a complete handbook of modern techniques of lithography Integrated Theory & Knowledge Development in Nursing, 8e (Chinn, Integrated Theory and Knowledge Development in Nursing) Electronic Document Preparation and Management for CSEC Study Guide: Covers latest CSEC Electronic Document Preparation and Management syllabus. EQing Electronic Music: Essential Tips For Producers (Making Electronic Music Book 2) Getting Started with CNC: Personal Digital Fabrication with Shapeoko and Other Computer-Controlled Routers (Make) 3D CAD with Autodesk 123D: Designing for 3D Printing, Laser Cutting, and Personal Fabrication

[Dmca](#)