
Contents

Introduction	
<i>Jürgen Jahns, Karl-Heinz Brenner</i>	V
Microstructure Technology for Optical Component Fabrication	
<i>E.-Bernhard Kley, Lars-Christian Wittig, Andreas Tünnermann</i>	1
Microlithographic Pattern Generation for Optics	
<i>Bernd Schnabel</i>	31
Modeling of Free-Space Microoptics	
<i>Uwe D. Zeitner, Peter Schreiber, Wolfgang Karthe</i>	45
Modeling of Photonic Waveguides and Circuits	
<i>Reinhard März</i>	59
Modeling of Waveguide-Optical Devices by the Method of Lines	
<i>Reinhold Pregla</i>	79
Microoptics using the LIGA Technology	
<i>Ines Frese</i>	101
Modular Fabrication Concept for LIGA-based Microoptics	
<i>Jürgen Mohr, Arndt Last, Ulrike Wallrabe</i>	115
Fabrication of optical waveguides in dielectrics by femtosecond laser pulses	
<i>Stefan Nolte, Matthias Will, Jonas Burghoff, Andreas Tünnermann</i>	127
Integrated Planar Erbium-Doped Waveguide Amplifiers: Technological and Optical Considerations	
<i>Matthias Brinkmann, Steffen Reichel, Joseph S. Hayden</i>	145

Two-Dimensional Photonic Crystal Waveguides <i>Cecile Jamois, Ralf Boris Wehrspohn, Christian Hermann, Ortwin Hess, Lucio Claudio Andreani, Ulrich Gösele</i>	161
Interferometric Measurement of Microlenses Including Cylindrical Lenses <i>Norbert Lindlein, Jürgen Lamprecht, Johannes Schwider</i>	183
The Integrated Microlens – The Development of Vertical and Horizontal Integration <i>Masahiro Oikawa</i>	223
Planar-Integrated Free-Space Optics – from Components to Systems <i>Matthias Gruber, Jürgen Jahns</i>	233
Microoptical Structures for Semiconductor Light Sources <i>Werner Späth</i>	261
Microoptic Sensors <i>Albrecht Brandenburg</i>	269
Fiber Optic Gyros and MEMS Accelerometers <i>Andreas Rasch, Eberhard Handrich, Günter Spahlinger, Martin Hafen, Sven Voigt, Michael Weingärtner</i>	283
Microoptical Applications in Spectrally Encoded Fiber Sensor Systems <i>Hartmut Bartelt</i>	297
Micro-Optical Beam Shaping for Supershort-Pulse Lasers <i>Rüdiger Grunwald, Volker Kebbel</i>	307
Index	321