

## CONTENTS

Preface	vii
1. Surface Plasmon Nanophotonics <i>Pieter G. Kik and Mark L. Brongersma</i>	1
2. Near-Field and Far-Field Properties of Nanoparticle Arrays <i>Andreas Hohenau, Alfred Leitner and Franz R. Aussenegg</i>	11
3. Theory of Light Transmission Through Periodically Structured Nano-Apertures <i>F.J. Garcia-Vidal, F. López-Tejeira, J. Bravo-Abad and L. Martín-Moreno</i>	27
4. Development and Near-Field Characterization of Surface Plasmon Waveguides <i>J.-C. Weeber, A.-L. Baudrion, M. U. González, A. Dereux, Rashid Zia and Mark L. Brongersma</i>	39
5. Numerical Simulations of Long-Range Plasmonic Transmission Lines <i>Aloyse Degiron and David R. Smith</i>	55
6. Surface Plasmon Polariton Guiding in Photonic Bandgap Structures <i>Thomas Søndergaard and Sergey I. Bozhevolnyi</i>	73
7. Subwavelength-Scale Plasmon Waveguides <i>Harry A. Atwater, Jennifer A. Dionne and Luke A. Sweatlock</i>	87
8. Optical Superlens <i>X. Zhang, M. Ambati, N. Fang, H. Lee, Z. Liu, C. Sun and Y. Xiong</i>	105
9. Optical Field Enhancement with Plasmon Resonant Bowtie Nanoantennas <i>G.S. Kino, Arvind Sundaramurthy, P.J. Schuck, D.P. Fromm and W.E. Moerner</i>	125

10. Near-Field Optical Excitation and Detection of Surface Plasmons <i>Alexandre Bouhelier and Lukas Novotny</i>	139
11. Principles of Near-Field Optical Mapping <i>Alain Dereux</i>	155
12. Overview of Simulation Techniques for Plasmonic Devices <i>Georgios Veronis and Shanhui Fan</i>	169
13. Plasmon Hybridization in Complex Nanostructures <i>J.M. Steele, N.K. Grady, P. Nordlander and N.J. Halas</i>	183
14. Sensing Proteins with Adaptive Metal Nanostructures <i>Vladimir P. Drachev, Mark D. Thoreson and Vladimir M. Shalaev</i>	197
15. Integrated Optics Based on Long-Range Surface Plasmon Polaritons <i>Pierre Berini</i>	217
16. Localized Surface Plasmons for Optical Data Storage Beyond the Diffraction Limit <i>Junji Tominaga</i>	235
17. Surface Plasmon Coupled Emission <i>Zygmunt Gryczynski, Evgenia G. Matveeva, Nils Calander, Jian Zhang, Joseph R. Lakowicz and Ignacy Gryczynski</i>	247
Index	267