

Contents

1	Introduction to Nano-Biosensing.....	1
	Sandro Carrara	
2	Nano-scale Force Spectroscopy Applied to Biological Samples.....	23
	Sandor Kasas, Charles Roduit, and Giovanni Dietler	
3	Surface Nano-patterning of Polymers for Mass-Sensitive Biodetection.....	45
	Adnan Mujahid and Franz L. Dickert	
4	Surface Plasmon Resonance on Nanoscale Organic Films.....	83
	Willem M. Albers and Inger Vikholm-Lundin	
5	Nanotechnology to Improve Electrochemical Bio-sensing	127
	Sandro Carrara	
6	Nano-Photonics and Opto-Fluidics on Bio-Sensing	151
	Ming C. Wu and Arash Jamshidi	
7	Nano-metric Single-Photon Detector for Biochemical Chips	177
	Edoardo Charbon and Yuki Maruyama	
8	Energy Harvesting for Bio-sensing by Using Carbon Nanotubes	195
	Koushik Maharatna, Karim El Shabrawy, and Bashir Al-Hashimi	
9	Integrated Nano-Bio-VLSI Approach for Designing Error-Free Biosensors	217
	Shantanu Chakrabartty, Evangelyn C. Alcilja, and Yang Liu	
	Index.....	241



<http://www.springer.com/978-1-4419-6168-6>

Nano-Bio-Sensing

Carrara, S. (Ed.)

2011, X, 248 p., Hardcover

ISBN: 978-1-4419-6168-6