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Titolo	Nanoscale Surface Modification for Enhanced Biosensing : A Journey Toward Better Glucose Monitoring // by Guigen Zhang
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ISBN	3-319-17479-7
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Descrizione fisica	1 online resource (108 p.)
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Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index at the end of each chapters.
Nota di contenuto	A Brief Overview of Biosensors -- Morphological Surface Modification -- Biochemical Surface Modification -- Adding Nanoparticles in Chemical Modification -- Surface Modified Electrodes in A Microfluidic Biosensor -- Concluding Remarks.
Sommario/riassunto	This book gives a comprehensive overview of electrochemical-based biosensors and their crucial components. Practical examples are given throughout the text to illustrate how the performance of electrochemical-based biosensors can be improved by nanoscale surface modification and how an optimal design can be achieved. All essential aspects of biosensors are considered, including electrode functionalization, efficiency of the mass transport of reactive species, and long term durability and functionality of the sensor. This book also: · Explains how the performance of an electrochemical-based

biosensor can be improved by nanoscale surface modification

- Gives readers the tools to evaluate and improve the performance of a biosensor with a multidisciplinary approach that considers electrical, electrostatic, electrochemical, chemical, and biochemical events
- Links the performance of a sensor to the various governing physical and chemical principles so readers can fully understand how a biosensor with nanoscale modified electrode surface functions
