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Altri autori (Persone)	CrespilhoFrank N
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Nota di contenuto	Nanoscience-based electrochemical sensors and arrays for detection of cancer biomarker proteins -- Nanomaterials for Biosensors and Implantable Biodevices -- Nanomaterials for enzyme biofuel cells -- Biosensors based on Field-Effect Devices -- Using supramolecular chemistry strategy for mapping electrochemical phenomena on the nanoscale -- DNA AND ENZYME-BASED ELECTROCHEMICAL BIOSENSORS: ELECTROCHEMISTRY AND AFM SURFACE CHARACTERIZATION -- Electrochemical-Surface Plasmon Resonance: Concept and Bioanalytical Applications.
Sommario/riassunto	Nanobioelectrochemistry covers the modern aspects of bioelectrochemistry, nanoscience and materials science. The combination of nanostructured materials and biological molecules enables the development of biodevices capable to detect specific substances. Furthermore, by using the bioelectrochemistry approach, the interaction between bio-systems and nanostructured materials can be studied at the molecular level, where several mechanisms of molecular behavior are elucidate from redox reactions. The combination of biological molecules and novel nanomaterials components is of great importance in the process of developing new nanoscale devices for future biological, medical and electronic applications. This book describes some of the different electrochemical

techniques that can be used to study new strategies for patterning electrode surfaces with enzymes, organelles, cells and biomimetic systems. Also, it focuses on how enzymes and microorganisms can be used as biological catalysts in fuel cells for green power generation. By bringing together these different aspects of nanobioelectrochemistry, this book provides a valuable source of information for many students and scientists.

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