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Titolo	Electrochemical Biosensors for Whole Blood Analysis / / edited by Fan Xia, Hui Li, Shaoguang Li, Xiaoding Lou
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Descrizione fisica	1 online resource (0 pages)
Disciplina	610.28
Soggetti	Materials Detectors Analytical chemistry Sensors and biosensors Analytical Chemistry Bioanalytical Chemistry
Lingua di pubblicazione	Inglese
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction -- Electrochemical biosensors and the signaling -- Electrochemical biosensors for ions detection -- Electrochemical biosensors for neurotransmitters detection -- Electrochemical biosensors for metabolites detection -- Electrochemical biosensors for drugs detection -- Electrochemical biosensors for amino acids detection -- Electrochemical biosensors for nucleic acids detection -- Electrochemical biosensors for microRNA detection -- Electrochemical biosensors for hepatic and cardiac biomarkers detection -- Electrochemical biosensors for inflammatory biomarkers detection -- Electrochemical biosensors for tumor biomarkers detection -- Electrochemical biosensors for cells and cell exosomes detection -- Future perspectives of electrochemical biosensors for whole blood analysis.
Sommario/riassunto	This book illustrates recent advances in developing sensitive and selective electrochemical biosensors for their whole blood application. Known to be a cutting-edge and fast-growing technology, electrochemical biosensors demonstrate their potential in laboratories, industries, and healthcare to achieve specific and direct target

detection in complex media, and have become an emerging technology for guiding personalized medicine. The book first demonstrates methods and models to cover the detection of a variety of target molecules in whole blood, including ions, small molecules, nucleic acids, proteins, cells, etc. Then, it provides comments on various detection strategies employed to improve sensors' sensitivity, specificity, selectivity, and reproducibility as well as presenting the laws and principles. In addition, it summarizes achievements and challenges from recent years. Finally, it provides future perspectives and opportunities in electrochemical biosensors including pointof care detection, molecular diagnostics and the integration of this sensor platform with multidisciplinary technologies, towards the ultimate goal of personalized medicine. The book integrates abundant viewpoints from multiple sciences and is helpful and valuable to a wide readership in the various fields of biochemistry, biophysics, bioengineering, and pharmaceuticals.

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