Record Nr. UNINA9910298654503321 Autore Seeber Renato Titolo Functional Materials in Amperometric Sensing: Polymeric, Inorganic, and Nanocomposite Materials for Modified Electrodes / / by Renato Seeber, Fabio Terzi, Chiara Zanardi Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, Pubbl/distr/stampa . 2014 ISBN 3-662-45103-4 Edizione [1st ed. 2014.] Descrizione fisica 1 online resource (228 p.) Collana Monographs in Electrochemistry, , 1865-1844 Disciplina 541.3724 Soggetti Electrochemistry Materials - Analysis Analytical chemistry Nanotechnology Characterization and Analytical Technique **Analytical Chemistry** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references. Importance of Modified Electrodes in Amperometric Sensing --Nota di contenuto Intrinsically Conducting Polymers -- Ion Exchange Polymers -- Nonconducting Polymers -- Monolayers -- Nanosized Materials -- Silica-Based Materials and Derivatives. Amperometric sensors, biosensors included, particularly rely on Sommario/riassunto suitable electrode materials. Progress in material science has led to a wide variety of options that are available today. For the first time, these novel functional electrode coating materials are reviewed in this monograph, written by and for electroanalytical chemists. This includes intrinsically conducting, redox and ion-exchange polymers, metal and carbon nanostructures, silica based materials. Monolayers and relatively thick films are considered. The authors critically discuss preparation methods, in addition to chemical and physical characteristics of these new materials. They present various examples of emerging applications in electroanalysis. Due to its comprehensive coverage, the book will

become an indispensable source for researchers working on the

development and even proper use of new amperometric sensor systems