

1. Record Nr.	UNINA9910523714003321
Titolo	Modified Nanomaterials for Environmental Applications : Electrochemical Synthesis, Characterization, and Properties // edited by Onoyivwe Monday Ama, Suprakas Sinha Ray, Peter Ogbemudia Osifo
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
ISBN	3-030-85555-4
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (242 pages)
Collana	Engineering Materials, , 1868-1212
Classificazione	UHMZFEUPP
Disciplina	620.115
Soggetti	Composite materials Green chemistry Materials Chemistry Electrochemistry Nanoscience Environmental chemistry Composites Green Chemistry Materials Chemistry Nanophysics Environmental Chemistry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Electrochemical Synthesis of Nanomaterials -- Electrochemical Characterization of Nanomaterials -- Electrochemical Detection of Heavy Metals -- Sensing the Presence of Inorganic Ions in Water: The Use of Electrochemical Sensors -- Corrosion Prevention: The Use of Nanomaterials -- Application of Surface-Modified Electrode Materials In Wastewater Treatment.
Sommario/riassunto	This book focuses on the electrochemical and nanostructural properties of new photoanode/electrolyte combinations used in the development of novel surface-modified nanomaterials for environmental

applications. As water treatment is rapidly becoming a global challenge due to the increasing complexity and number of the various pollutants present, the book explores fundamental issues relating to environmental applications of nanomaterials. It addresses relevant topics ranging from electrochemical synthesis and characterization, to applications of photoanodes in corrosion prevention and biosensors for wastewater treatment. Featuring up-to-date experimental results on nanomaterials for detection of pharmaceuticals and heavy metals in wastewater, this contributed volume is useful to electrochemical researchers, materials scientists, and chemical and civil engineers interested in advanced photoelectrochemical research for environmental applications.
