1. Record Nr. UNINA9910876684503321

Titolo	Biophysico-chemical processes involving natural nonliving organic matter in environmental systems / / edited by Nicola Senesi, Baoshan Xing, Pan Ming Huang
Pubbl/distr/stampa	Hoboken, N.J., : Wiley, c2009
ISBN	1-282-36878-8 9786612368783 0-470-49495-6 0-470-49494-8
Descrizione fisica	1 online resource (905 p.)
Collana	Wiley-IUPAC series in biophysico-chemical processes in environmental systems
Altri autori (Persone)	SenesiN (Nicola) XingBaoshan HuangP. M
Disciplina	577.14
Soggetti	Environmental chemistry Bioorganic chemistry Soil biochemistry Humus
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	BIOPHYSICO-CHEMICAL PROCESSES INVOLVING NATURAL NONLIVING ORGANIC MATTER IN ENVIRONMENTAL SYSTEMS; CONTENTS; Series Preface; Preface; About the Editors; List of Contributors; 1 Evolution of Concepts of Environmental Natural Nonliving Organic Matter; 2 Formation Mechanisms of Humic Substances in the Environment; 3 Organo-Clay Complexes in Soils and Sediments; 4 The Effect of Organic Matter Amendment on Native Soil Humic Substances; 5 Carbon Sequestration in Soil; 6 Storage and Turnover of Organic Matter in Soil 7 Black Carbon and Thermally Altered (Pyrogenic) Organic Matter: Chemical Characteristics and the Role in the Environment8 Biological Activities of Humic Substances; 9 Role of Humic Substances in the Rhizosphere; 10 Dissolved Organic Matter (DOM) in Natural Environments; 11 Marine Organic Matter; 12 Natural Organic Matter in

Atmospheric Particles; 13 Separation Technology as a Powerful Tool for Unfolding Molecular Complexity of Natural Organic Matter and Humic Substances; 14 Analytical Pyrolysis and Soft-Ionization Mass Spectrometry
15 Nuclear Magnetic Resonance Analysis of Natural Organic Matter16 EPR, FTIR, Raman, UV-Visible Absorption, and Fluorescence Spectroscopies in Studies of NOM; 17 Synchrotron-Based Near-Edge X-Ray Spectroscopy of NOM in Soils and Sediments; 18 Thermal Analysis for Advanced Characterization of Natural Nonliving Organic Materials; Index

Sommario/riassunto

An up-to-date resource on natural nonliving organic matter Bringing together world-renowned researchers to explore natural nonliving organic matter (NOM) and its chemical, biological, and ecological importance, Biophysico-Chemical Processes Involving Natural Nonliving Organic Matter in Environmental Systems offers an integrated view of the dynamics and processes of NOM. This multidisciplinary approach allows for a comprehensive treatment encompassing all the formation processes, properties, reactions, environments, and analytical techniques associated with the latest research o