Record Nr. UNINA9911004824303321 **Titolo** Environanotechnology / / edited by Maohong Fan ... [et al.] Pubbl/distr/stampa Oxford, : Elsevier, 2010 **ISBN** 9786612737282 9781282737280 1282737287 9780080915111 0080915116 Edizione [1st edition] Descrizione fisica 1 online resource Altri autori (Persone) FanMaohong Disciplina 620.5 Soggetti Nanotechnology - Environmental aspects Nanostructured materials - Environmental aspects 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 and index. Nota di contenuto Responses of Ceriodaphnia dubia to Photocatalytic Nano-Titanium dioxide particles -- High capacity removal of mercury(II) ions by Poly (hydroxyethyl methacrylate) nanoparticles -- CO2 response of nanostructured CoSb2O6 synthesized by a nonaqueous coprecipitation method -- Capture of CO2 by modified multiwalled carbon nanotubes -- Kinetics, thermodynamics and regeneration of BTEX adsorption in aqueous solutions via NaOCI oxidized carbon nanotubes -- Nanostructured metal oxide gas sensors for air quality monitoring -- Hydrogen storage on carbon adsorbents: review --Treatment of nanodiamonds in supercritical water --Spectrophotometric flow-injection system using multiwalled carbon nanotubes as solid preconcentrator for copper monitoring in water samples -- Application of carbon nanotubes as a solid-phase extraction material for environmental samples -- Fire retarded environmentally friendly flexible foam materials using nanotechnology -- Simulation of hydrogen purification by pressure swing adsorption for application in fuel cells -- On the relationship between social ethics and environmental nanotechnology

Understanding and utilizing the interactions between environment and

Sommario/riassunto

nanoscale materials is a new way to resolve the increasingly challenging environmental issues we are facing and will continue to face. Environanotechnology is the nanoscale technology developed for monitoring the quality of the environment, treating water and wastewater, as well as controlling air pollutants. Therefore, the applications of nanotechnology in environmental engineering have been of great interest to many fields and consequently a fair amount of research on the use of nanoscale materials for dealing with environmental issues has been conducted. The aim of this book is to report on the results recently achieved in different countries. It provides useful technological information for environmental scientists and will assist them in creating cost-effective nanotechnologies to solve critical environmental problems, including those associated with energy production. -Presents research results from a number of countries with various nanotechnologies in multidisciplinary environmental engineering fields -Gives a solid introduction to the basic theories needed for understanding how environanotechnologies can be developed cost-effectively, and when they should be applied in a responsible manner -Includes worked examples that put environmental problems in context to show the actual connections between nanotechnology and environmental engineering