

Free pdf Dangerous doses a true story of cops counterfeiters and the contamination of americas drug supply [PDF]

cultures of contamination legacies of pollution in russia and the united states is the outcome of a cross national research and study exchange sponsored by the trust for mutual understanding the goal was to contrast how two respective nations societies and cultures created and then addressed the contamination of their respective environments twenty chapters reflecting original contributions by russian and american scholars examine this topic particularly emphasizing the social and psychological dimensions of contamination issues résumé de l éditeur this book focuses on the mechanistic microscopic understanding of radionuclide uptake by plants in contaminated soils and potential use of phytoremediation the key features concern radionuclide toxicity in plants how the radioactive materials are absorbed by plants and how the plants cope with the toxic responses the respective chapters examine soil classification natural plant selection speciation of actinides kinetic modeling and case studies on cesium uptake after radiation accidents radionuclide contaminants pose serious problems for biological systems due to their chemical toxicity and radiological effects the processes by which radionuclides can be incorporated into vegetation can either originate from activity interception by external plant surfaces either directly from the atmosphere or from resuspended material or through uptake of radionuclides via the root system subsequent transfer of toxic elements to the human food chain is a concrete danger therefore the molecular mechanisms and genetic basis of transport into and within plants needs to be understood for two reasons the effectiveness of radionuclide uptake into crop plants so called transfer coefficient is a prerequisite for the calculation of dose due to the food path on the other hand efficient radionuclide transfer into plants can be made use of for decontamination of land so called phytoremediation the direct use of living green plants for in situ removal of pollutants from the environment or to reduce their concentrations to harmless levels the trajectories of pollution in global capitalism from the toxic waste of early tanneries to the poisonous effects of pesticides in the twentieth century through the centuries the march of economic progress has been accompanied by the spread of industrial pollution as our capacities for production and our aptitude for consumption have increased so have their byproducts chemical contamination from fertilizers and pesticides diesel emissions oil spills a vast plastic continent found floating in the ocean the contamination of the earth offers a social and political history of industrial pollution mapping its trajectories over three centuries from the toxic wastes of early tanneries to the fossil fuel energy

regime of the twentieth century although valuable resources in river basins and other aqueous environments sediments often receive much less attention from researchers policymakers and other professionals than other components of the ecosystem until now highlighting the important role that sediments play in the geoenvironment sediments contamination and sustainable remediat this volume examines every potential means of exposure to water contaminants provides in depth discussions on toxicology and explains up to date techniques for evaluating human health risk it develops a methodology for assessing the cumulative absorbed dose of contaminants through all routes of exposure including ingestion inhalation and dermal federal and state efforts to monitor and treat water are examined while innovative technologies in remediation need to be developed so do innovative ways of site assessment this monograph describes the development testing and performance of a new laser induced fluorescence soil probe a screening tool for site characterization this probe has the potential to provide an economical rapid assessment of contaminated sites cone penetrometer testing equipment advances the probe into the subsurface the probe identifies hydrocarbon classes using a multi channel excitation emission matrix this technique facilitates the collection of significant amounts of subsurface information surpassing conventional data collection methods that can be used to rapidly identify areas of concern beneath a site the technology has significant application for the following rapid environmental site assessment monitoring remediation programs monitoring manufacturing processes and industrial waste water operations subsurface contamination monitoring using laser fluorescence provides comprehensive reference material for researchers and engineers as well as engineering consultants interested in subsurface monitoring techniques or further development of this technology it describes innovative technology that focuses on finding cost effective solutions for site assessment and remediation this book is based mainly on invited and offered papers presented at the second international symposium on bacterial and bacteria like contaminants of plant tissue cultures held at university college cork ireland in september 1996 with additional invited papers the first international symposium on bacterial and bacteria like contaminants of plant tissue cultures was held at the same venue in 1987 and was published as acta horticulturae volume 225 1988 in the intervening years there have been considerable advances in both plant disease diagnostics and in the development of structured approaches to the management of disease and microbial contamination in micropropagation these approaches have centred on attempts to separate spatially the problems of disease transmission and laboratory contamination disease control is best achieved by establishing pathogen free cultures while laboratory contamination is based on subsequent good working practice control of losses due to pathogens and microbial contamination in vitro addresses arguably the most importance causes of losses in the industry nevertheless losses at and post establishment can also be considerable due to poor quality microplants or micro shoots in this symposium a holistic approach to pathogen and microbial contamination control is evident with the recognition that micropropagators must address pathogen and microbial contamination in vitro and

diseases and microplant failure at establishment there is increasing interest in establishing beneficial bacterial and mycorrhizal association with microplants in vitro and in vivo in the tradition of the great investigative classics dangerous doses exposes the dark side of america s pharmaceutical trade stolen compromised and counterfeit medicine increasingly makes its way into a poorly regulated distribution system where it may reach unsuspecting patients who stake their lives on its effectiveness katherine eban s hard hitting exploration of america s secret ring of drug counterfeiters takes us to florida where tireless investigators follow the trail of medicine stolen in a seemingly minor break in as it funnels into a sprawling national network of drug polluters their pursuit stretches from a strip joint in south miami to the halls of congress as they battle entrenched political interests and uncover an increasing threat to america s health with the conscience of a crusading reporter eban has crafted a riveting narrative that shows how when we most need protection we may be most at risk aquatic contamination authoritative resource presenting techniques and technologies to sustainably neutralize environmental contamination in aquatic plants microorganisms and more two thirds of the earth is covered with aquatic habitats that play a key role in stabilizing the global environment and providing a wide variety of services to increasing human needs nevertheless anthropogenic activities are rapidly destroying the quality of both fresh and marine waters globally due to excessive use of chemicals fertilizers and pollution from suburban and industrial areas eventually making their way into the aquatic world aquatic contamination tolerance and bioremediation presents the broader spectrum of biological applicability of microbes with better understanding of cellular mechanisms for remediation of aquatic contaminants the book also focuses on practices involved in molecular and genetic approaches necessary to achieve targets of bioremediation and phytoremediation to solve global water contamination problems such approaches pave the way for the utilization of biological assets to design new efficient and environmentally sound remediation strategies by inculcating genomic techniques at cellular and molecular levels with model assessment aquatic contamination provides a comprehensive background for readers interested in all perspectives of the contamination of aquatic environs it covers various research aspects which are being carried out globally to understand simulation models in the assessment of xenobiotics role of genomics transgenic plants and microbial enzymes for degradation and removal of toxic substances in aquatic environs key features include extensive coverage of interactions between plants metals and microbes including the influence of biotic and abiotic factors comprehensive discussion of the details of molecular mechanisms from assimilation to detoxification levels exploration of the enzymatic approaches of potential plants acting as hyper accumulators for contaminants in aquatic environs details of sustainable tools such as transgenic plants for the manipulation of important functional microbial genes to achieve higher certainty of bioremediation details of advances in tools and models like micro arrays and simulation models for the complete assessment of xenobiotic compounds from cellular to degradation hierarchies aquatic contamination tolerance and bioremediation will be substantially

helpful to environmentalists microbiologists biotechnologists and scientists providing essential information on various modern technologies for the remediation of contaminants in aquatic ecosystems environmental contamination and remediation practices at former and present military bases outlines the different strategies that are useful in the investigation and subsequent remediation of military bases particular attention is paid to the pollution of groundwater the book contains an excellent review of useful remediation techniques and several examples of their application to polluted military bases several mathematical models are demonstrated showing their predictive value for real examples a detailed list is given of chemical pollutants that can be found on a military base strategies are described for the investigation and determination of the future of a polluted military site examples are given obtained from practical experience of dealing with old contaminated sites the australasia pacific region supports approximately 50 of the world s population the last half century has witnessed a rapid increase in the regional population agricultural productivity industrial activities and trade within the region both the demand for increased food production and the desire to improve the economic conditions have affected regional environmental quality this volume presents an overview of the fate of contaminants in the soil environment current soil management factors used to control contaminant impacts issues related to sludge and effluent disposals in the soil environment legal health and social impacts of contaminated land remediation approaches and strategies to manage contaminated land some of the problems associated with environmental degradation in the australasia pacific region and steps that we need to take to safeguard our environment fundamental aspects of pollution control and environmental science 1 trace element contamination of the environment investigates the global biological consequences of dispersal of trace elements that are mined from localized limited deposits in the environment it considers the problem of trace element contamination of the biosphere as an environmental pollution and as part of the ecological crisis as a whole comprised of eight chapters this volume begins with an overview of trace element contaminants such as lead cadmium and mercury it then discusses factors affecting the trace element composition of soils including sulfur lime and fertilizers it explains as well the trace element contamination of the atmosphere and hydrosphere the sources of trace element contamination of soils and the availability of trace elements in the soil the consequences of trace element contamination of the soil including its effects on crops and animals are also discussed the book also provides ways to prevent dispersal of metals in the environment this book will be an essential reading for undergraduates law students and those who are interested about environmental pollution caused by trace elements rajiv kohli and kash mittal have brought together the work of experts from different industry sectors and backgrounds to provide a state of the art survey and best practice guidance for scientists and engineers engaged in surface cleaning or handling the consequences of surface contamination topics covered include a systems analysis approach to contamination control physical factors that influence the behavior of particle deposition in enclosures an overview

of current yield models and description of advanced models types of strippable coatings their properties and applications of these coatings for removal of surface contaminants in depth coverage of ultrasonic cleaning contamination and cleaning issues at the nanoscale experimental results illustrating the impact of model parameters on the removal of particle contamination the expert contributions in this book provide a valuable source of information on the current status and recent developments in surface contamination and cleaning the book will be of value to industry government and academic personnel involved in research and development manufacturing process and quality control and procurement specifications across sectors including microelectronics aerospace optics xerography and joining adhesive bonding about the editors rajiv kohli is a leading expert with the aerospace corporation in contaminant particle behavior surface cleaning and contamination control at the nasa johnson space center in houston texas he provides technical support for contamination control related to ground based and manned spaceflight hardware for the space shuttle the international space station and the new constellation program that is designed to meet the united states vision for space exploration kashmiri lal kash mittal was associated with ibm from 1972 to 1994 currently he is teaching and consulting in the areas of surface contamination and cleaning and in adhesion science and technology he is the editor in chief of the journal of adhesion science and technology and is the editor of 98 published books many of them dealing with surface contamination and cleaning also available developments in surface contamination and cleaning volume 1 fundamentals and applied aspects edited by rajiv kohli k l mittal isbn 9780815515555 provides guidance on best practice cleaning techniques and the avoidance of surface contamination covers contamination and cleaning issues at the nanoscale includes an in depth look at ultrasonic cleaning contamination of foods and agricultural commodities by various types of toxigenic fungi is a concerning issue for human and animal health moulds naturally present in foods can produce mycotoxins and contaminate foodstuffs under favourable conditions of temperature relative humidity ph and nutrient availability mycotoxins are in general stable molecules that are difficult to remove from foods once they have been produced therefore the prevention of mycotoxin contamination is one of the main goals of the agriculture and food industries chemical control or decontamination techniques may be quite efficient however the more sustainable and restricted use of fungicides the lack of efficiency in some foods and the consumer demand for chemical residue free foods require new approaches to control this hazard therefore food safety demands continued research efforts for exploring new strategies to reduce mycotoxin contamination this special issue contains original contributions and reviews that advance the knowledge about the most current promising approaches to minimize mycotoxin contamination including biological control agents phytochemical antifungal compounds enzyme detoxification and the use of novel technologies the book focuses on the relationships between technological and social innovations and the new opportunities and challenges that the education system is facing the authors explore the intertwines between the educational scenarios and the

contemporary social economic and cultural contexts by discussing the contamination lab clab experience which set out in italian universities with the purpose of promoting entrepreneurial and innovation culture the cross fertilization of various disciplines and between the academic and entrepreneurial worlds in particular is the starting point of the clab naples training model the clab naples was promoted by the university of naples federico ii taking advantage of the opportunities offered by digital technologies the development of scientific and applied research and the creativity of the youth universe since the beginning its mission has been to bring new skills and promote the creation of innovative enterprises or startups starting from the relevant technological and cultural transformations that today are affecting both the workplace and knowledge the experience of the clab naples stands as a powerful link between research and enterprises laboratory and territory education and jobs creative innovation and the development of new digital technologies reviews of environmental contamination and toxicology attempts to provide concise critical reviews of timely advances philosophy and significant areas of accomplished or needed endeavor in the total field of xenobiotics in any segment of the environment as well as toxicological implications developments in surface contamination and cleaning methods for assessment and verification of cleanliness of surfaces and characterization of surface contaminants volume twelve the latest release in the developments in surface contamination and cleaning series provides best practices on determining surface cleanliness chapters include an introduction to the nature and size of particles a discussion of cleanliness levels detailed coverage of measurement methods characterization methods and analytical methods for evaluating surfaces and an overview of analysis methods for various contaminants as a whole the series creates a unique and comprehensive knowledge base for those in research and development in a variety of industries manufacturing quality control and procurement specification professionals in the aerospace automotive biomedical defense energy manufacturing microelectronics optics and xerography industries will find this book to be very helpful in addition researchers in an academic setting will also find these volumes excellent source books includes an extensive listing with a description of available methods for the assessment of surface cleanliness provides a single source of information on methods for verification of surface cleanliness serves as a guide to the selection assessment and verification of methods for specific applications reviews of environmental contamination and toxicology provides detailed review articles concerned with aspects of chemical contaminants including pesticides in the total environment with toxicological considerations and consequences this comprehensive reference describes investigations of the fate of toxic chemicals emanating from hazardous waste sites and contaminating groundwater discussing the hydrogeochemistry at us canadian australian and german sites to reflect the different approaches used around the world written by over 30 international experts in the field groundwater contamination and analysis at hazardous waste sites presents case histories spanning 30 years of activities by the united states geological survey s organics in water project including studies of pesticide munition and wood preservative

residues contaminating groundwater outlines the u s environmental protection agency s sw 846 methods of analysis for groundwater samples taken at hazardous waste sites details the analytical requirements for qualitative surveys regulatory compliance and research programs examines the use of statistics at site investigations and waste disposal facilities as well as data interpretation techniques such as multivariate plots covers the application of a portable gas chromatograph in studying a vapor phase plume of trichloroethylene giving tips about problems that may lead to variability in the data and explores dense nonaqueous phase liquid dissolution using raoult s law biotransformation of the dissolved constituents and their sorption to aquifer materials extensively illustrated with more than 250 figures tables and display equations groundwater contamination and analysis at hazardous waste sites is a practical tool for pollution control and environmental engineers hydrogeologists analytical chemists and upper level undergraduate and graduate students in these disciplines contamination of water supplies and the immediate availability of appropriate emergency responses to chemical biological radiological or nuclear cbrn events which result in contaminated water are becoming increasingly relevant and significant issues in the water industry and in the wider world consequently new strategies and technologies are being constantly evolved and refined by leading experts in the field in order to achieve rapid and effective responses to water contamination events water contamination emergencies enhancing our response brings together contributions from leading scientists and experts from both academia and industry in the field of water contamination and emergency planning the book covers a wide range of topics including responses to water contamination emergencies impacts on public health and commerce risk assessment analysis and monitoring emergency planning control and planning and threats to the water industry this book is ideal for specialists in the field of water contamination and emergency response planning especially researchers and professionals in industry and government who require an authoritative and highly specialised resource on water contamination management the reader will gain an appreciation of the activities supporting the development of responses to contamination events emergency actions required in response to the contamination of drinking water and incident management also discussed are the importance of communication between organisations and the public consumer perceptions and the need for robust and rapid screening of samples taken in response to potential contamination events in order to help answer the key question is this water safe to drink how do we assess and manage the actual risks from water contamination can we learn from previous experiences what can be done in future this book is the proceedings of the fifth conference on this topic and addresses these issues relating to drinking water and drinking water systems with emphasis on effectively and efficiently managing the risks and threats and sharing experiences it provides information on successful use of leading edge technologies and best practice both now and for the future with contributions from leading scientists and experts in academia and industry it offers a truly international perspective on our ability to deal with water contamination emergencies emphasis is given to prevention strategy and unusual emergency

incident situations relating to drinking water the book will appeal across a diverse group from public health professionals water companies and water security experts and regulators groundwater contamination in coastal aquifers assessment and management first describes groundwater contamination in coastal aquifers and then delves into specific topics surrounding various hydrogeochemical processes next the book covers case studies of groundwater quality assessment using recent techniques explains the various pollutants and contaminants in coastal aquifers and covers management and remediation methods to control contamination in coastal aquifers this key reference encompasses various topics in broader perspectives on groundwater contamination in coastal aquifers providing a significant contribution to the field of hydrogeology presents global case studies that show the reader how this issue is affecting sites around the world includes a remediation plan that solves problems surrounding the management of groundwater water treatment techniques and the management of available groundwater resources provides advanced techniques that can be applied and used as methodologies for solving groundwater issues reviews of environmental contamination and toxicology provides concise critical reviews of timely advances philosophy and significant areas of accomplished or needed endeavor in the total field of xenobiotics in any segment of the environment as well as toxicological implications it facilitates the task of accessing and interpreting cogent scientific data and will be of interest to researchers resource managers and policy administrators dan and quinn lowery may have escaped the initial infection but their journey is far from over their once safe location has been compromised overrun by the agents and the infected now in order to survive they must first escape also available in the series contamination book zero contamination 1 the onset contamination 2 crossroads contamination 3 wasteland contamination 4 escape contamination 5 survival contamination 6 sanctuary contamination dead instinct the global medical and scientific communities need to standardize methodologies and agree on minimum criteria to permit inter study comparisons this book develops such standards presenting a series of recommendations that represent the first codification of the manner in which studies should be executed contamination in tissue culture covers the sources prevention detection and elimination of contamination in tissue culture composed of 12 chapters the book describes the frequency of occurrence of contamination and the many different effects of contamination on cultured cells after introducing the intraspecies contamination of cell cultures the book explains a specific type of contamination such as bacterial fungal viral and parasitic contamination a chapter in this book describes the reversible and irreversible alterations of cultured fl human amnion cells after experimental mycoplasmal infection chapters 9 and 10 examine the occurrence of tissue culture contaminants by electron microscopy and procedures for isolating and identifying viral contaminants the concluding chapter covers sterility tests of media and solutions for tissue culture and the use of antibiotics it also summarizes the major developments made as well as future challenges in the field this book will be helpful to investigators teachers students and technicians within the many disciplines of cell biology physiology cytology virology immunology

genetics oncology molecular biology biochemistry and biophysics in which tissue and cell cultures are used either as the primary object of research or as tools the technology for preventing and mitigating contamination of electronic products is reviewed in four major ways the types and sources of contaminants typical contamination effects contamination removal methods and contamination prevention through design process product protection and testing

Cultures of Contamination

2007

cultures of contamination legacies of pollution in russia and the united states is the outcome of a cross national research and study exchange sponsored by the trust for mutual understanding the goal was to contrast how two respective nations societies and cultures created and then addressed the contamination of their respective environments twenty chapters reflecting original contributions by russian and american scholars examine this topic particularly emphasizing the social and psychological dimensions of contamination issues résumé de l éditeur

Radionuclide Contamination and Remediation Through Plants

2014-07-14

this book focuses on the mechanistic microscopic understanding of radionuclide uptake by plants in contaminated soils and potential use of phytoremediation the key features concern radionuclide toxicity in plants how the radioactive materials are absorbed by plants and how the plants cope with the toxic responses the respective chapters examine soil classification natural plant selection speciation of actinides kinetic modeling and case studies on cesium uptake after radiation accidents radionuclide contaminants pose serious problems for biological systems due to their chemical toxicity and radiological effects the processes by which radionuclides can be incorporated into vegetation can either originate from activity interception by external plant surfaces either directly from the atmosphere or from resuspended material or through uptake of radionuclides via the root system subsequent transfer of toxic elements to the human food chain is a concrete danger therefore the molecular mechanisms and genetic basis of transport into and within plants needs to be understood for two reasons the effectiveness of radionuclide uptake into crop plants so called transfer coefficient is a prerequisite for the calculation of dose due to the food path on the other hand efficient radionuclide transfer into plants can be made use of for decontamination of land so called phytoremediation the direct use of living green plants for in situ removal of pollutants from the environment or to reduce their concentrations to harmless levels

The Contamination of the Earth

2021-11-16

the trajectories of pollution in global capitalism from the toxic waste of early tanneries to the poisonous effects of pesticides in the twentieth century through the centuries the march of economic progress has been accompanied by the spread of industrial pollution as our capacities for production and our aptitude for consumption have increased so have their byproducts chemical contamination from fertilizers and pesticides diesel emissions oil spills a vast plastic continent found floating in the ocean the contamination of the earth offers a social and political history of industrial pollution mapping its trajectories over three centuries from the toxic wastes of early tanneries to the fossil fuel energy regime of the twentieth century

Sediments Contamination and Sustainable Remediation

2009-12-16

although valuable resources in river basins and other aqueous environments sediments often receive much less attention from researchers policymakers and other professionals than other components of the ecosystem until now highlighting the important role that sediments play in the geoenvironment sediments contamination and sustainable remediat

Transport and Transformations of Chlorinated-solvent Contamination in a Saprolite and Fractured Rock Aquifer Near a Former Wastewater-treatment Plant, Greenville, South Carolina

1997

this volume examines every potential means of exposure to water contaminants provides in depth discussions on toxicology and explains up to date techniques for evaluating human health risk it develops a methodology for assessing the cumulative absorbed dose of contaminants through all routes of exposure including ingestion inhalation and dermal federal and state efforts to monitor and treat water are examined

Water Contamination and Health

2020-08-26

while innovative technologies in remediation need to be developed so do innovative ways of site assessment this monograph describes the development testing and performance of a new laser induced fluorescence soil probe a screening tool for site characterization this probe has the potential to provide an economical rapid assessment of contaminated sites cone penetrometer testing equipment advances the probe into the subsurface the probe identifies hydrocarbon classes using a multi channel excitation emission matrix this technique facilitates the collection of significant amounts of subsurface information surpassing conventional data collection methods that can be used to rapidly identify areas of concern beneath a site the technology has significant application for the following rapid environmental site assessment monitoring remediation programs monitoring manufacturing processes and industrial waste water operations subsurface contamination monitoring using laser fluorescence provides comprehensive reference material for researchers and engineers as well as engineering consultants interested in subsurface monitoring techniques or further development of this technology it describes innovative technology that focuses on finding cost effective solutions for site assessment and remediation

Removal of Tritium Contamination from Surfaces of Metals

1959

this book is based mainly on invited and offered papers presented at the second international symposium on bacterial and bacteria like contaminants of plant tissue cultures held at university college cork ireland in september 1996 with additional invited papers the first international symposium on bacterial and bacteria like contaminants of plant tissue cultures was held at the same venue in 1987 and was published as acta horticulturae volume 225 1988 in the intervening years there have been considerable advances in both plant disease diagnostics and in the development of structured approaches to the management of disease and microbial contamination in micropropagation these approaches have centred on attempts to separate spatially the problems of disease transmission and laboratory contamination disease control is best achieved by establishing pathogen free cultures while laboratory contamination is based on subsequent good working practice control of losses due to pathogens and microbial contamination in vitro addresses arguably the most importance causes of losses in the industry nevertheless losses at and post establishment can also be considerable due to poor quality microplants or micro

shoots in this symposium a holistic approach to pathogen and microbial contamination control is evident with the recognition that micropropagators must address pathogen and microbial contamination in vitro and diseases and microplant failure at establishment there is increasing interest in establishing beneficial bacterial and mycorrhizal association with microplants in vitro and in vivo

Groundwater Contamination

1888

in the tradition of the great investigative classics dangerous doses exposes the dark side of america s pharmaceutical trade stolen compromised and counterfeit medicine increasingly makes its way into a poorly regulated distribution system where it may reach unsuspecting patients who stake their lives on its effectiveness katherine eban s hard hitting exploration of america s secret ring of drug counterfeiters takes us to florida where tireless investigators follow the trail of medicine stolen in a seemingly minor break in as it funnels into a sprawling national network of drug polluters their pursuit stretches from a strip joint in south miami to the halls of congress as they battle entrenched political interests and uncover an increasing threat to america s health with the conscience of a crusading reporter eban has crafted a riveting narrative that shows how when we most need protection we may be most at risk

Subsurface Contamination Monitoring Using Laser Fluorescence

2019-08-16

aquatic contamination authoritative resource presenting techniques and technologies to sustainably neutralize environmental contamination in aquatic plants microorganisms and more two thirds of the earth is covered with aquatic habitats that play a key role in stabilizing the global environment and providing a wide variety of services to increasing human needs nevertheless anthropogenic activities are rapidly destroying the quality of both fresh and marine waters globally due to excessive use of chemicals fertilizers and pollution from suburban and industrial areas eventually making their way into the aquatic world aquatic contamination tolerance and bioremediation presents the broader spectrum of biological applicability of microbes with better understanding of cellular mechanisms for remediation of aquatic contaminants the book also focuses on practices involved in molecular and genetic approaches necessary to achieve targets of bioremediation and phytoremediation to solve global water

contamination problems such approaches pave the way for the utilization of biological assets to design new efficient and environmentally sound remediation strategies by inculcating genomic techniques at cellular and molecular levels with model assessment aquatic contamination provides a comprehensive background for readers interested in all perspectives of the contamination of aquatic environs it covers various research aspects which are being carried out globally to understand simulation models in the assessment of xenobiotics role of genomics transgenic plants and microbial enzymes for degradation and removal of toxic substances in aquatic environs key features include extensive coverage of interactions between plants metals and microbes including the influence of biotic and abiotic factors comprehensive discussion of the details of molecular mechanisms from assimilation to detoxification levels exploration of the enzymatic approaches of potential plants acting as hyper accumulators for contaminants in aquatic environs details of sustainable tools such as transgenic plants for the manipulation of important functional microbial genes to achieve higher certainty of bioremediation details of advances in tools and models like micro arrays and simulation models for the complete assessment of xenobiotic compounds from cellular to degradation hierarchies aquatic contamination tolerance and bioremediation will be substantially helpful to environmentalists microbiologists biotechnologists and scientists providing essential information on various modern technologies for the remediation of contaminants in aquatic ecosystems

Pathogen and Microbial Contamination Management in Micropropagation

1997-10-31

environmental contamination and remediation practices at former and present military bases outlines the different strategies that are useful in the investigation and subsequent remediation of military bases particular attention is paid to the pollution of groundwater the book contains an excellent review of useful remediation techniques and several examples of their application to polluted military bases several mathematical models are demonstrated showing their predictive value for real examples a detailed list is given of chemical pollutants that can be found on a military base strategies are described for the investigation and determination of the future of a polluted military site examples are given obtained from practical experience of dealing with old contaminated sites

Dangerous Doses

2006-05-01

the australasia pacific region supports approximately 50 of the world s population the last half century has witnessed a rapid increase in the regional population agricultural productivity industrial activities and trade within the region both the demand for increased food production and the desire to improve the economic conditions have affected regional environmental quality this volume presents an overview of the fate of contaminants in the soil environment current soil management factors used to control contaminant impacts issues related to sludge and effluent disposals in the soil environment legal health and social impacts of contaminated land remediation approaches and strategies to manage contaminated land some of the problems associated with environmental degradation in the australasia pacific region and steps that we need to take to safeguard our environment

Aquatic Contamination

2023-09-26

fundamental aspects of pollution control and environmental science 1 trace element contamination of the environment investigates the global biological consequences of dispersal of trace elements that are mined from localized limited deposits in the environment it considers the problem of trace element contamination of the biosphere as an environmental pollution and as part of the ecological crisis as a whole comprised of eight chapters this volume begins with an overview of trace element contaminants such as lead cadmium and mercury it then discusses factors affecting the trace element composition of soils including sulfur lime and fertilizers it explains as well the trace element contamination of the atmosphere and hydrosphere the sources of trace element contamination of soils and the availability of trace elements in the soil the consequences of trace element contamination of the soil including its effects on crops and animals are also discussed the book also provides ways to prevent dispersal of metals in the environment this book will be an essential reading for undergraduates law students and those who are interested about environmental pollution caused by trace elements

Agricultural Drainage Problems and Contamination at Kesterson Reservoir

1985

rajiv kohli and kash mittal have brought together the work of experts from different industry sectors and backgrounds to provide a state of the art survey and best practice guidance for scientists and engineers engaged in surface cleaning or handling the consequences of surface contamination topics covered include a systems analysis approach to contamination control physical factors that influence the behavior of particle deposition in enclosures an overview of current yield models and description of advanced models types of strippable coatings their properties and applications of these coatings for removal of surface contaminants in depth coverage of ultrasonic cleaning contamination and cleaning issues at the nanoscale experimental results illustrating the impact of model parameters on the removal of particle contamination the expert contributions in this book provide a valuable source of information on the current status and recent developments in surface contamination and cleaning the book will be of value to industry government and academic personnel involved in research and development manufacturing process and quality control and procurement specifications across sectors including microelectronics aerospace optics xerography and joining adhesive bonding about the editors rajiv kohli is a leading expert with the aerospace corporation in contaminant particle behavior surface cleaning and contamination control at the nasa johnson space center in houston texas he provides technical support for contamination control related to ground based and manned spaceflight hardware for the space shuttle the international space station and the new constellation program that is designed to meet the united states vision for space exploration kashmiri lal kash mittal was associated with ibm from 1972 to 1994 currently he is teaching and consulting in the areas of surface contamination and cleaning and in adhesion science and technology he is the editor in chief of the journal of adhesion science and technology and is the editor of 98 published books many of them dealing with surface contamination and cleaning also available developments in surface contamination and cleaning volume 1 fundamentals and applied aspects edited by rajiv kohli k l mittal isbn 9780815515555 provides guidance on best practice cleaning techniques and the avoidance of surface contamination covers contamination and cleaning issues at the nanoscale includes an in depth look at ultrasonic cleaning

Environmental Contamination and Remediation Practices at Former and Present Military Bases

2012-12-06

contamination of foods and agricultural commodities by various types of toxigenic fungi is a concerning issue for human and animal health moulds naturally present in foods can produce mycotoxins and contaminate foodstuffs under favourable conditions of temperature relative humidity ph and nutrient availability mycotoxins are in general stable molecules that are difficult to remove from foods once they have been produced therefore the prevention of mycotoxin contamination is one of the main goals of the agriculture and food industries chemical control or decontamination techniques may be quite efficient however the more sustainable and restricted use of fungicides the lack of efficiency in some foods and the consumer demand for chemical residue free foods require new approaches to control this hazard therefore food safety demands continued research efforts for exploring new strategies to reduce mycotoxin contamination this special issue contains original contributions and reviews that advance the knowledge about the most current promising approaches to minimize mycotoxin contamination including biological control agents phytochemical antifungal compounds enzyme detoxification and the use of novel technologies

Contaminants and the Soil Environment in the Australasia-Pacific Region

2012-12-06

the book focuses on the relationships between technological and social innovations and the new opportunities and challenges that the education system is facing the authors explore the intertwines between the educational scenarios and the contemporary social economic and cultural contexts by discussing the contamination lab clab experience which set out in italian universities with the purpose of promoting entrepreneurial and innovation culture the cross fertilization of various disciplines and between the academic and entrepreneurial worlds in particular is the starting point of the clab naples training model the clab naples was promoted by the university of naples federico ii taking advantage of the opportunities offered by digital technologies the development of scientific and applied research and the creativity of the youth universe since the beginning its mission has been to

bring new skills and promote the creation of innovative enterprises or startups starting from the relevant technological and cultural transformations that today are affecting both the workplace and knowledge the experience of the club naples stands as a powerful link between research and enterprises laboratory and territory education and jobs creative innovation and the development of new digital technologies

Trace Element Contamination of the Environment

2012-12-02

reviews of environmental contamination and toxicology attempts to provide concise critical reviews of timely advances philosophy and significant areas of accomplished or needed endeavor in the total field of xenobiotics in any segment of the environment as well as toxicological implications

Developments in Surface Contamination and Cleaning - Vol 2

2009-10-02

developments in surface contamination and cleaning methods for assessment and verification of cleanliness of surfaces and characterization of surface contaminants volume twelve the latest release in the developments in surface contamination and cleaning series provides best practices on determining surface cleanliness chapters include an introduction to the nature and size of particles a discussion of cleanliness levels detailed coverage of measurement methods characterization methods and analytical methods for evaluating surfaces and an overview of analysis methods for various contaminants as a whole the series creates a unique and comprehensive knowledge base for those in research and development in a variety of industries manufacturing quality control and procurement specification professionals in the aerospace automotive biomedical defense energy manufacturing microelectronics optics and xerography industries will find this book to be very helpful in addition researchers in an academic setting will also find these volumes excellent source books includes an extensive listing with a description of available methods for the assessment of surface cleanliness provides a single source of information on methods for verification of surface cleanliness serves as a guide to the selection assessment and verification of methods for specific applications

Environmental cleanup costs : NASA is making progress in identifying contamination, but more effort is needed : report to Congressional requesters

1982

reviews of environmental contamination and toxicology provides detailed review articles concerned with aspects of chemical contaminants including pesticides in the total environment with toxicological considerations and consequences

Potential for Saturated Ground-water System Contamination at the Lawrence Livermore National Laboratory

1990

this comprehensive reference describes investigations of the fate of toxic chemicals emanating from hazardous waste sites and contaminating groundwater discussing the hydrogeochemistry at us canadian australian and german sites to reflect the different approaches used around the world written by over 30 international experts in the field groundwater contamination and analysis at hazardous waste sites presents case histories spanning 30 years of activities by the united states geological survey s organics in water project including studies of pesticide munition and wood preservative residues contaminating groundwater outlines the u s environmental protection agency s sw 846 methods of analysis for groundwater samples taken at hazardous waste sites details the analytical requirements for qualitative surveys regulatory compliance and research programs examines the use of statistics at site investigations and waste disposal facilities as well as data interpretation techniques such as multivariate plots covers the application of a portable gas chromatograph in studying a vapor phase plume of trichloroethylene giving tips about problems that may lead to variability in the data and explores dense nonaqueous phase liquid dissolution using raoult s law biotransformation of the dissolved constituents and their sorption to aquifer materials extensively illustrated with more than 250 figures tables and display equations groundwater contamination and analysis at hazardous waste sites is a practical tool for pollution control and environmental engineers hydrogeologists analytical chemists and upper level undergraduate and graduate students in these

disciplines

Selected Factors Related to the Potential for Contamination of the Principal Aquifer, Salt Lake Valley, Utah

1985

contamination of water supplies and the immediate availability of appropriate emergency responses to chemical biological radiological or nuclear cbrn events which result in contaminated water are becoming increasingly relevant and significant issues in the water industry and in the wider world consequently new strategies and technologies are being constantly evolved and refined by leading experts in the field in order to achieve rapid and effective responses to water contamination events water contamination emergencies enhancing our response brings together contributions from leading scientists and experts from both academia and industry in the field of water contamination and emergency planning the book covers a wide range of topics including responses to water contamination emergencies impacts on public health and commerce risk assessment analysis and monitoring emergency planning control and planning and threats to the water industry this book is ideal for specialists in the field of water contamination and emergency response planning especially researchers and professionals in industry and government who require an authoritative and highly specialised resource on water contamination management the reader will gain an appreciation of the activities supporting the development of responses to contamination events emergency actions required in response to the contamination of drinking water and incident management also discussed are the importance of communication between organisations and the public consumer perceptions and the need for robust and rapid screening of samples taken in response to potential contamination events in order to help answer the key question is this water safe to drink

Hazardous Waste Contamination of Water Resources

1986

how do we assess and manage the actual risks from water contamination can we learn from previous experiences what can be done in future this book is the proceedings of the fifth conference on this topic and addresses these issues relating to drinking water and drinking water systems with emphasis on effectively and efficiently managing the risks and threats and sharing experiences it provides information on successful use of leading edge

technologies and best practice both now and for the future with contributions from leading scientists and experts in academia and industry it offers a truly international perspective on our ability to deal with water contamination emergencies emphasis is given to prevention strategy and unusual emergency incident situations relating to drinking water the book will appeal across a diverse group from public health professionals water companies and water security experts and regulators

Health Implications of Toxic Chemical Contamination of the Santa Monica Bay

2020-05-22

groundwater contamination in coastal aquifers assessment and management first describes groundwater contamination in coastal aquifers and then delves into specific topics surrounding various hydrogeochemical processes next the book covers case studies of groundwater quality assessment using recent techniques explains the various pollutants and contaminants in coastal aquifers and covers management and remediation methods to control contamination in coastal aquifers this key reference encompasses various topics in broader perspectives on groundwater contamination in coastal aquifers providing a significant contribution to the field of hydrogeology presents global case studies that show the reader how this issue is affecting sites around the world includes a remediation plan that solves problems surrounding the management of groundwater water treatment techniques and the management of available groundwater resources provides advanced techniques that can be applied and used as methodologies for solving groundwater issues

Novel Approaches to Minimising Mycotoxin Contamination

1990

reviews of environmental contamination and toxicology provides concise critical reviews of timely advances philosophy and significant areas of accomplished or needed endeavor in the total field of xenobiotics in any segment of the environment as well as toxicological implications it facilitates the task of accessing and interpreting cogent scientific data and will be of interest to researchers resource managers and policy administrators

A Review of Sources of Ground-water Contamination from Light Industry

2009

dan and quinn lowery may have escaped the initial infection but their journey is far from over their once safe location has been compromised overrun by the agents and the infected now in order to survive they must first escape also available in the series contamination book zero contamination 1 the onset contamination 2 crossroads contamination 3 wasteland contamination 4 escape contamination 5 survival contamination 6 sanctuary contamination dead instinct

Is USDA Accounting for Costs to Farmers Caused by Contamination from Genetically Engineered Plants?

2021-04-22T00:00:00+02:00

the global medical and scientific communities need to standardize methodologies and agree on minimum criteria to permit inter study comparisons this book develops such standards presenting a series of recommendations that represent the first codification of the manner in which studies should be executed

Digital Cultures, Innovation and Startup

1984

contamination in tissue culture covers the sources prevention detection and elimination of contamination in tissue culture composed of 12 chapters the book describes the frequency of occurrence of contamination and the many different effects of contamination on cultured cells after introducing the intraspecies contamination of cell cultures the book explains a specific type of contamination such as bacterial fungal viral and parasitic contamination a chapter in this book describes the reversible and irreversible alterations of cultured fl human amnion cells after experimental mycoplasmal infection chapters 9 and 10 examine the occurrence of tissue culture contaminants by electron microscopy and procedures for isolating and identifying viral contaminants the concluding chapter covers

sterility tests of media and solutions for tissue culture and the use of antibiotics it also summarizes the major developments made as well as future challenges in the field this book will be helpful to investigators teachers students and technicians within the many disciplines of cell biology physiology cytology virology immunology genetics oncology molecular biology biochemistry and biophysics in which tissue and cell cultures are used either as the primary object of research or as tools

Ground Water Contamination

2014-07-08

the technology for preventing and mitigating contamination of electronic products is reviewed in four major ways the types and sources of contaminants typical contamination effects contamination removal methods and contamination prevention through design process product protection and testing

Reviews of Environmental Contamination and Toxicology Volume 228

2019-06-08

Developments in Surface Contamination and Cleaning, Volume 12

2000-05-01

Reviews of Environmental Contamination and Toxicology

1992-08-13

Groundwater Contamination and Analysis at Hazardous Waste Sites

2006

Water Contamination Emergencies

2013-07-01

Water Contamination Emergencies

1964

Contamination of Refractory Metals by Residual Gases in Vacuums Below 10^{-6} TORR

2022-06-22

Groundwater Contamination in Coastal Aquifers

2010-07-07

Reviews of Environmental Contamination and Toxicology 193

2015-05-29

Contamination

1998-10-31

Ocular Radiation Risk Assessment in Populations Exposed to Environmental Radiation Contamination

2012-12-02

Contamination in Tissue Culture

1991-01-07

Contamination Effects on Electronic Products

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