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Contamination of Water

Health Risk Assessment and Treatment Strategies

Book • 2021

Edited by:
Arif Ahamad, Sharf Ilahi Siddiqui and Pardeep Singh

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Table of contents

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About the book

FEEDBACK

Description

Water containing significant amounts of inorganic and organic contaminants can have serious environmental consequences and serious health implications when ingested. *Contamination of Water: Health Risk Assessment and Treatment Strategies* takes an interconnected look at the various pollutants, the source of contamination, the effects of

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Key Features

- Provides practical case studies of various types and sources of contamination
- Discusses inorganic and organic contaminants and their impact on human health
- Evaluates effective water treatment and remediation technologies to remove toxins from water and minimize risk

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Details

ISBN

978-0-12-824058-8

Language

English

Published

2021

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Imprint

Academic Press

DOI

https://doi.org/10.1016/C2020-0-01554-9

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Editors

Arif Ahamad

Department of Environmental Sciences, Daulat Ram College, University of Delhi, New Delhi, India

Sharf Ilahi Siddiqui

Environmental Research Laboratory, Department of Chemistry, Jamia Millia Islamia, New Delhi, India

Pardeep Singh

Department of Environmental Studies, PGDAV College, University of Delhi, New Delhi, India

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Contamination of Water
Health Risk Assessment and Treatment Strategies

2021, Pages 85-98

Chapter 6 - Contamination of water resources in industrial zones

Gyanendra Tripathi [1], Arbab Husain [2], Suhail Ahmad [1], Ziaul Hasan [3], Alvina Farooqui [1]

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Abstract

Freshwater is a natural valuable resource and can be easily contaminated. The level of the extent of contamination results in it being considered as “polluted.” Increased industrialization and urbanization have stressed water resources; this ultimately results in the contamination of the clean water. In low lying areas dumping of industrial waste increases water contamination chances because of the high rate of percolation through the soil. Contaminants can reach the water resources both by underground and surface waters, by the emission of solid, liquid, or gaseous particulate from different industries. The wastewater discharged from industries may contain contaminants like organic or inorganic matter, highly acidic or basic dyes, heavy metals, and pathogenic bacteria. When these toxic contaminants reach the water resources and contaminate them, it results in the loss of the chemical oxygen demand and biological oxygen demand of water. Many chemical, biological, and physical methods have been designed for the treatment of the contaminated water. Bioremediation of contaminates by algae, fungi, and bacteria is found to be a promising technique. Contaminated water is of great concern for the plants, human, and aquatic organisms. In this chapter we will study the major industrial contaminates, their source, effects, and remediation techniques present in water resources.

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Keywords

Contamination; industrialization; urbanization; wastewater discharge; chemical oxygen demand; biological oxygen demand

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