

Advanced Nanomaterials for Water Engineering, Treatment, and Hydraulics

Part of the Advances in Environmental Engineering and Green Technologies Book Series

Tawfik A. Saleh (King Fahd University of Petroleum & Minerals, Saudi Arabia)

Description:

While nanotechnology has been a booming research field for years, the study of how it can be used alongside water engineering has not been deeply explored. By examining the ways in which nanomaterials can aid hydraulics, these tools can be used for water purification, water treatments, and a vast array of other uses that will make water engineering easier and safer.

Advanced Nanomaterials for Water Engineering, Treatment, and Hydraulics is a comprehensive reference source for the latest research-based material on the use of progressive nanotechnologies for water technologies. Features coverage on relevant topics such as water purification, nano-metal oxides, chitosan nanoparticles, and contaminated waste water.

Readers:

This is an ideal reference source for engineers, students, academics, and researchers seeking innovative perspectives on the use of nanomaterials in water engineering.

ISBN: 9781522521365

Release Date: May, 2017

Copyright: 2017

Pages: 323

Topics Covered:

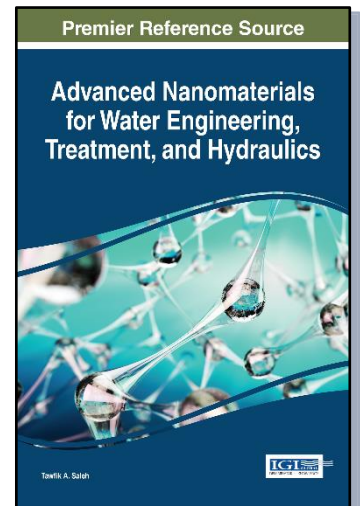
- Biomaterials
- Chemical Substance Removal
- Chitosan Nanoparticles
- Environmental Concerns
- Hexavalent Chromium
- Pollutants Degradation
- Waste Water

Hardcover + Free E-Book:

\$200.00

E-Book Only:

\$200.00



Order Information

Phone: 717-533-8845 x100

Toll Free: 1-866-342-6657

Fax: 717-533-8661 or 717-533-7115

Online Bookstore: www.igi-global.com

TABLE OF CONTENTS

- Chapter 1
An Overview of Nanomaterials for Water technology
- Chapter 2
Scientific Insights into Modified and non-modified biomaterials for sorption of heavy metals from water
- Chapter 3
Principles and advantages of Microwave-assisted methods for the Synthesis of Nanomaterials for water purification
- Chapter 4
Fundamentals and sources of magnetic nanocomposites and their sorption properties
- Chapter 5
Advanced Nanomaterials for Water Engineering and Treatment: Nano-Metal Oxides and their Nanocomposites
- Chapter 6

Advanced Nanomaterials for the Removal of Chemical Substances and Microbes from Contaminated and Waste Water

Chapter 7
Biomass-Derived Activated Carbon: Synthesis, Functionalized, and Photocatalysis Application

Chapter 8
Polymer consumption, environmental concerns, possible disposal options and recycling for water treatment

Chapter 9
Characteristics of Chitosan Nanoparticles for Water and Wastewater Treatment

Chapter 10
Performance of chitosan micro/nanoparticles to remove hexavalent chromium from residual water

Chapter 11
Applications of Nanomaterials for water treatment: A Future Avenue