

Environmental Science And Engineering Henry Heinke

Biological Environmental Science is an introductory textbook for undergraduate students who desire a one semester course or, alternatively, a springboard course for advanced environmental offerings. This book features timely issues such as global warming, air, ground and water pollutions, population growth, species extinction and environmental poli

This book celebrates the contributions of John Weidman and his colleagues to the understanding of student socialization in higher education. It includes innovative chapters reflecting new approaches to higher education student socialization with respect to students of color, gender, STEM, and students in higher education systems outside the USA. Specifically, the book examines socialization between and within in a range of groups, including national, international and minority students, parents, doctoral students, early career faculty, and scholarly practitioners. The book assesses methodological approaches and suggests directions for reformulating theory and practice. Using sociological perspectives to address issues and concerns at both the undergraduate and graduate levels, the book gives renewed life to the college impact literature. It includes revisions and expansions of the original Weidman frameworks based on the synthesis of existing research with new work reflecting unique perspectives by a variety of authors. John Weidman has been an indisputable force in the study and understanding of student socialization in higher education. This new book by Weidman and his coeditor, Linda DeAngelo, represents an undeniably significant and welcomed expansion of the original "Weidman model" of student socialization. In updating and revising the original model, chapter authors give attention to various contemporary issues such as student diversity, gender differences, early career experiences, and internationalism. Whether one samples only some of the articles that constitute this book or reads all of them, the professional payoff will be substantial. Kenneth A. Feldman, Professor of Sociology, Stony Brook University John Weidman has made a number of groundbreaking contributions to our understanding of student socialization in postsecondary education. This book, edited with Linda DeAngelo, brings together a group of fine scholars whose contributions will push our understanding even further. It is a significant addition to the college impact literature. Ernest T. Pascarella, Petersen Chair in Higher Education, University of Iowa

A new book from the National Research Council recommends changes in how the federal government evaluates the efficiency of research at EPA and other agencies. Assessing efficiency should be considered only one part of gauging a program's quality, relevance, and effectiveness. The efficiency of research processes and that of investments should be evaluated using different approaches. Investment efficiency should examine whether an agency's R&D portfolio, including the budget, is relevant, of high quality, matches the agency's strategic plan. These evaluations require panels of experts. In contrast, process efficiency should focus on "inputs" (the people, funds, and facilities dedicated to research) and "outputs" (the services, grants, publications, monitoring, and new techniques produced by research), as well as their timelines and should be evaluated using quantitative measures. The committee recommends that the efficiency of EPA's research programs be evaluated according to the same standards used at other agencies. To ensure this, OMB should train and oversee its budget examiners so that the PART questionnaire is implemented consistently and equitably across agencies.

Environmental Ion Exchange: Principles and Design contains the most important ion exchange-related design and application issues. Using tables, graphs, and conversion tables, this book teaches you the basics, giving you the knowledge to use ion exchange to reuse, recover, and recycle. This hands-on guide explains how to apply ion exchange to reuse wastewaters, recover valuable chemicals, and recycle industrial waters. For anyone who is designing unconventional ion exchange systems, or who needs a fundamental knowledge of ion exchange, this is the perfect working reference. Experts in environmental engineering, the authors hold nine patents related to ion exchange. In this book they share their expertise, taking you through the entire design process. Each chapter stands on its own, allowing rapid access to each topic of interest. Examples are abundant throughout, and most chapters provide reference sections for further reference and research. With Environmental Ion Exchange: Principles and Design, you will learn innovative, cost-effective solutions to water and wastewater problems.

Career profiles include electrical and electronics installer and repairer, geoscience technician, hazardous materials removal worker, hot-cell technician, natural gas processing plant operator, nuclear engineer, oil well driller, petroleum engineer, power distributor and dispatcher, solar engineer, and more.

A ubiquitous, largely overlooked groundwater contaminant, 1,4-dioxane escaped notice by almost everyone until the late 1990s. While some dismissed 1,4-dioxane because it was not regulated, others were concerned and required testing and remediation at sites they oversaw. Drawing years of 1,4-dioxane research into a convenient resource, Environmental Investigation and Remediation: 1,4-Dioxane and other Solvent Stabilizers profiles the nature of 1,4-dioxane and several dozen other solvent stabilizer compounds. The author takes an approach he calls "contaminant archeology", i.e., reviewing the history of the contaminating chemical's use in the industrial workplace at the site of release and how those uses impart chemical characteristics to the waste that affects its fate and transport properties. The book examines the uses, environmental fate, laboratory analysis, toxicology, risk assessment, and treatment of 1,4-dioxane in extensive detail. It provides case studies that document the contaminant migration, regulation, treatment, and legal aspects of 1,4-dioxane releases. It also describes the controversy over interpretation of 1,4-dioxane's toxicology and associated risk, as well as the corresponding disparity in states' regulation of 1,4-dioxane. A final chapter examines the policy implications of emerging contaminants like 1,4-dioxane, with discussion of opportunities to improve the regulatory and remedial response to this persistent contaminant in the face of toxicological uncertainty. Mobility, persistence, and treatment challenges combine to make 1,4-dioxane a particularly vexing contaminant. It is more mobile than any other contaminant you are likely to find at solvent release sites. Filled with case studies, equations, tables, figures, and citations, the book supplies a wide range of information on 1,4-dioxane. It then provides passive and active remediation strategies and treatment technologies for 1,4-dioxane in groundwater and provides you with the technical resources to help you decide which are appropriate for your site. For more information about Thomase Mohr and his book, go to <http://www.The14DioxaneBook.com>

Designed for both professional and student use, the new Second Edition includes recent improvements in the application of new technologies and materials on the environment. It also places greater emphasis on the three environmental media of air, water, and soil and discusses how technology can be used to mitigate contamination of all three.

This well-written reference/text presents a broad overview and analysis of the wastes produced by modern urban societies and how they are managed and disposed of. All aspects of integrated waste management are described, with emphasis on topics such as recycle centres, composting, municipal landfills, nuclear waste disposal, and incineration. Seven case histories — the Fresh Kills (Staten Island, New York), the Guelph Wet-Dry Recycling Centre (Ontario), the East Carbon Landfill (Utah), the Swan Hills

