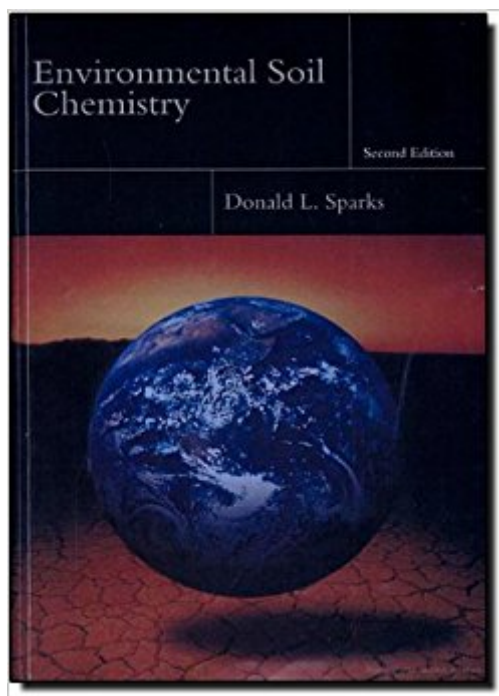


The book was found

Environmental Soil Chemistry, Second Edition



Synopsis

Environmental Soil Chemistry illustrates fundamental principles of soil chemistry with respect to environmental reactions between soils and other natural materials and heavy metals, pesticides, industrial contaminants, acid rain, and salts. Timely and comprehensive discussions of applications to real-world environmental concerns are a central focus of this established text. Provides students with both sound contemporary training in the basics of soil chemistry and applications to real-world environmental concerns. Timely and comprehensive discussion of important concepts including: sorption/desorption, oxidation-reduction of metals and organics, and effects of acidic deposition and salinity on contaminant reactions. Boxed sections focus on sample problems and explanations of key terms and parameters. Extensive tables on elemental composition of soils, rocks and sediments, pesticide classes, inorganic minerals, and methods of decontaminating soils. Clearly written for all students and professionals in environmental science and environmental engineering as well as soil science.

Book Information

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Mineralogy #276 in Books > Politics & Social Sciences > Social Sciences > Library & Information Science > Library Management

Customer Reviews

"Environmental Soil Chemistry is the only text available that covers the essentials of the topic plus provides information on the latest technological advances that represent the cutting edge of the science." --Gary M. Pierzynski, Professor at Kansas State University and Editor of Journal of Environmental Quality "Professor Sparks does an excellent job in relating environmental applications to the more theoretical topics of soil chemistry. The second edition has been notably

expanded for several topics including advanced analytical methods. Students in environmental sciences, environmental geochemistry, and soil science will find the book a highly instructive resource." --Harvey E. Doner, University of California at Berkeley "This text is a concise and authoritative introduction to the field of Environmental Soil Chemistry that is very suitable for a one semester course. The second edition is replete with crisp graphics and real world examples that lay out the foundations of soil chemistry, while providing a firm basis for illustrating the emergence in our field of cutting-edge techniques in molecular spectroscopy and kinetics." --Jon Chorover, University of Arizona, Tucson

Environmental Soil Chemistry Second Edition By Donald L. Sparks Department of Plant and Soil Science University of Delaware Clearly and concisely written for undergraduate and beginning graduate students of soil science, *Environmental Soil Chemistry, 2nd Edition* is accessible to all students and professionals of environmental engineering and science. Chapters cover background information useful to students new to the discipline, including the chemistry of inorganic and organic soil components, soil acidity and salinity, and ion exchange and redox phenomena. Discussion also extends to sorption/desorption, oxidation-reduction of metals and organic chemicals, rates of pollutant reactions as well as technologies for remediation of contaminated soils. New to the 2nd Edition is discussion of several important developments in soil chemistry such as synchrotron-based spectroscopic & microscopic techniques and molecular environmental science. Supplementary reading lists, sample problems, and extensive tables and figures make this textbook accessible to readers.

Key Features:

- Provides students with both sound contemporary training in the basics of soil chemistry and applications to real-world environmental concerns
- Timely and comprehensive discussion of important concepts including:
 - o Sorption/desorption
 - o Oxidation-reduction of metals and organics
 - o Effects of acidic deposition and salinity on contaminant reactions
 - o Molecular environmental science including synchrotron radiation, and spectroscopic and microscopic techniques
- Boxed sections focus on sample problems and explanations of key terms and parameters
- Extensive tables on elemental composition of soils, rocks and sediments, pesticide classes, inorganic minerals, and methods of decontaminating soils
- Clearly written for all students and professionals in environmental science and environmental engineering as well as soil science

Related Titles

Kassem & Nannipieri (eds.) - *Methods in Applied Soil Microbiology and Biochemistry* (1995, ISBN: 0-12-513840-7)

Coleman & Crossley - *Fundamentals of Soil Ecology* (1995, ISBN: 0-12-179725-2)

Paul & Clark - *Soil Microbiology & Biochemistry, 2nd Edition* (1996, ISBN: 0-12-546806-7)

Hillel - *Environmental Soil Physics* (1998, ISBN: 0-12-348525-8)

From Reviews of

the first edition:"... [a] welcome addition to a small but growing number of soil chemistry textbooks available for use in advanced undergraduate and beginning graduate courses... Replete with tables and figures that are effective and that readers will find particularly useful. A great many references are cited in the text, and supplementary readings are provided at the end of each chapter... well written, readable, and provides coverage of the important chemical principles and processes operating in a soil environment. ... a useful reference to students and scientists in the fields of geochemistry, hydrology, soil science, civil and environmental engineering, and related fields."--Soil Science

As advertised

Soil Chemistry by sparks is a strong text. It covers the essentials of soil chemistry and would be an excellent reference book, as it is concise.

I purchased this textbook as required reading for a grad class, and barely used it. It's a short, thin book, seems to be lacking in key topics, and the index is minimally useful. If I had it to do over, I'd purchase a more rigorous soil chem textbook.

Professor Donald L. Sparks has managed to write an excellent and up-to-date book on important topics related to environmental soil chemistry. The book covers all the essential subjects needed for an in-depth understanding of all the complex soil processes that control the fate and transport of both inorganic and organic contaminants in the environment. The book also includes good descriptions of state-of-the-art instrumentations used in environmental soil chemistry such as synchrotron radiation-based X-ray techniques. I use this book in my course entitled "Soil and Environmental Chemistry" and the book has the perfect length for a one semester course and the students like it. I can highly recommend this book for both undergraduate and graduate students as well as professionals.

Dr. Thomas Borch
Assistant Professor of Environmental Soil Chemistry
Department of Soil and Crop Sciences
Colorado State University
Fort Collins, Colorado 80523, USA

I still need more time to read it. But the contents are a little different from what I have expected. It did not discuss more about the chemistry of elements.

This was required reading for a soil water chemistry course that I took. As the course was problem-based learning, this text came in handy as a resource.

Item arrived on time and in great condition. Couldn't ask for more. The book is really great and easy to understand. Great Resource book.

The book is very good. I received the product before the date stipulated by . I am satisfied.

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Methods of Soil Analysis. Part 2. Microbiological and Biochemical Properties (Soil Science Society of America Book, No 5) (Soil Science Society of America Book Series) Environmental Soil Chemistry, Second Edition Environmental Toxicology and Chemistry (Topics in Environmental Chemistry) Environmental Soil Physics: Fundamentals, Applications, and Environmental Considerations Soil and Environmental Chemistry The Soul of Soil: A Soil-Building Guide for Master Gardeners and Farmers, 4th Edition Study Guide: Ace Organic Chemistry I - The EASY Guide to Ace Organic Chemistry I: (Organic Chemistry Study Guide, Organic Chemistry Review, Concepts, Reaction Mechanisms and Summaries) Ace General Chemistry I and II (The EASY Guide to Ace General Chemistry I and II): General Chemistry Study Guide, General Chemistry Review The Soil Will Save Us: How Scientists, Farmers, and Ranchers Are Tending the Soil to Reverse Global Warming Start With the Soil: The Organic Gardener's Guide to Improving Soil for Higher Yields, More Beautiful Flowers, and a Healthy, Easy-Care Garden Improving Your Soil: A Practical Guide to Soil Management for the Serious Home Gardener Taylor's Weekend Gardening Guide to Soil and Composting: The Complete Guide to Building Healthy, Fertile Soil (Taylor's Weekend Gardening Guides (Houghton Mifflin)) The living soil;: Evidence of the importance to human health of soil vitality, with special reference to post-war planning, Soil Water and Agronomic Productivity (Advances in Soil Science) Dynamics of Wheel- ∞ Soil Systems: A Soil Stress and Deformation-Based Approach (Ground Vehicle Engineering) Balancing Soil Nutrients and Acidity: The Real Dirt on Cultivating Crops, Compost, and a Healthier Home (The Ultimate Guide to Soil Book 3) The Soil Will Save Us: How Scientists, Farmers, and Foodies Are Healing the Soil to Save the Planet Soil and Water Chemistry: An Integrative Approach, Second Edition Environmental and Ecological Statistics with R, Second Edition (Chapman & Hall/CRC Applied Environmental Statistics) Environmental Engineering: Prevention and Response to Water-, Food-, Soil-, and Air-borne Disease and Illness

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