

A Textbook Of Environmental Chemistry And Pollution Control

Environmental chemistry is becoming increasingly crucial in understanding important issues that range from climate change to local pollution problems. It is the study of the chemical and biochemical phenomena that occur in the environment. It also studies the effects of these chemicals on ecosystems, animals, and human health. Advanced Environmental Chemistry discusses environment and its biological cycles. The book provides students and professionals with a clear understanding of the science and its applications. It provides an in depth introduction to the chemical composition of the atmosphere and water. The author also thoroughly explores important concepts such as soil pollution, radioactive pollution, and environment toxicology. All the chapters are followed by multiple choice and short answer questions.

This volume offers up-to-date and comprehensive information on various aspects of the Nile River, which is the main source of water in Egypt. The respective chapters examine the Nile journey; the Aswan High Dam Reservoir; morphology and sediment quality of the Nile; threats to biodiversity; fish and fisheries; rain-fed agriculture, rainfall data, and fluctuations in rainfall; the impact of climate change; and hydrogeology and legal aspects. The book closes with a concise summary of the conclusions and recommendations provided in the preceding chapters, and discusses the requirements for the sustainable development of the Nile River and potential ways to transform conflicts into cooperation. Accordingly, it offers an invaluable source of information for researchers, graduate students and policymakers alike.

This Book Has Been Thoroughly Revised And Updated In Its Present Sixth Edition. Striking A Neat Balance Between Environmental Chemistry And Environmental Chemical Analysis, The Book Explains The Various Dimensions Of Environmental Chemistry Including Latest Concepts And Developments In The Subject With Global And User-Friendly Approach. Notable Additions/Features In The New Edition Are: * New Chapter 5 On Environmental Biochemistry. * Separate Chapter 10 On Waste Treatment And Recycling After Recasting From Chapters 4 And 9. * New Sub-Section (1.1) (Chapter1) On The Dawn Of The Universe And Of Time, Setting A New Tone To The Book. * Carbon Cycle. * Latest Natural Disasters Tsunami, Hurricane Katrina. * Latest About Antarctica And Gangotri Glacier. With All These Inputs, This Book Will Scale New Heights Of Popularity In The Academic Community Comprising B.Sc. And M.Sc. Students Of Chemistry And Biochemistry As Well As Teachers In The Respective Subject. As Before, Scientists, Engineers And

Researchers Will Find It A Valuable Reference Source In Their Profession.

There is no need in the 1970s to explain the writing of a book on "Environmental Chemistry." The despoliation of the environment by man's activities has long been clear to chemists. However, it has been the subject of public debate for a short time-since the late 1960s. Curiously, there has been little reaction in the textbook literature to reflect this concern. Apart from some brief and sketchy paperbacks for schools, there has not yet been published a substantial review of environmental chemistry. One reason for this is the breadth of the chemistry involved: it could scarcely be covered by one or two authors, for it is as wide as chemistry itself. The ideal way to write such a book would be to gather a couple of dozen authors in one place and keep them together for 6 months of discussions and writing. This not being very practical, it was decided to do the next best thing and to attempt to network a number of men together in mutual correspondence and interaction, which would lead to a book that had the advantages of the expertise of a large number of persons, and lacked many of the usual disadvantages of the multi author book. Thus, synopses of the various articles were sent to each author, and they were encouraged to interact with each other in attempting to avoid repetition and in keeping their symbols uniform and their presentation style coordinated.

Textbook of Environmental Chemistry

Fundamentals

Environmental Chemistry in Society

Chemistry for Environmental and Earth Sciences

A Global Perspective

Basic Concepts of Environmental Chemistry, Second Edition provides a theoretical basis for the behavior and biological effects of natural chemical entities and contaminants in natural systems, concluding with a practical focus on risk assessment and the environmental management of chemicals. The text uses molecular properties such as pola

Environmental Organic Chemistry focuses on environmental factors that govern the processes that determine the fate of organic chemicals in natural and engineered systems. The information discovered is then applied to quantitatively assessing the environmental behaviour of organic chemicals. Now in its 2nd edition this book takes a more holistic view on physical-chemical properties of organic compounds. It includes new topics that address aspects of gas/solid partitioning, bioaccumulation, and transformations in the atmosphere. Structures

chapters into basic and sophisticated sections Contains illustrative examples, problems and case studies Examines the fundamental aspects of organic, physical and inorganic chemistry - applied to environmentally relevant problems Addresses problems and case studies in one volume

"With a focus on quantitative measurements, Environmental Chemistry provides the reader with the essential chemical principles that drive environmental processes. The author puts the state of the current environment in the context of the formation and evolution of the planet while reviewing chemical fundamentals. To prepare students for quantitative measurements, an entire chapter is devoted to measurement statistics and quantitative methods of analysis. A concise yet detailed explanation of the chemistry that underlies the atmosphere, lithosphere and hydrosphere gives students the requisite knowledge to understand issues such as ozone formation, the greenhouse effect, soil chemistry and water quality. Each chapter concludes with descriptions of the methods used in the analysis of environmentally significant chemicals. In-chapter and end-of-chapter problems train the students in analysis techniques and develop a chemically rigorous understanding of the environment. An appendix provides a detailed description of major chemical instruments students are likely to use in an undergraduate laboratory"--

As the author states in his Preface, this book is written at a time when scientific and lay communities recognize that knowledge of environmental chemistry is fundamental in understanding and predicting the fate of pollutants in soils and waters, and in making sound decisions about remediation of contaminated soils. Environmental Soil Chemistry presents the fundamental concepts of soil science and applies them to environmentally significant reactions in soil. Clearly and concisely written for undergraduate and beginning graduate students of soil science, the book is likewise 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. However, discussion also extends to sorption/desorption, oxidation-reduction of metals and organic chemicals, rates of pollutant reactions as well as technologies for remediating contaminated soils. 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: * Sorption/desorption * Oxidation-reduction of metals and organics * 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

Environmental Organic Chemistry

Environmental Chemistry

Textbook Of Environmental Chemistry

Introductory Chemistry for the Environmental Sciences

Environmental Chemistry and Toxicology of Mercury

Offers an accessible introduction to chemical principles and concepts and makes the subject accessible to those with little or no previous knowledge of chemistry. It is highly-illustrated, with global case studies, figures and tables.

"Biogeochemistry considers how the basic chemical conditions of the Earth—from atmosphere to soil to seawater—have been and are being affected by the existence of life. Human activities in particular, from the rapid consumption of resources to the destruction of the rainforests and the expansion of smog-covered cities, are leading to rapid changes in the basic chemistry of the Earth. This expansive text pulls together the numerous fields of study encompassed by biogeochemistry to analyze the increasing demands of the growing human population on limited resources and the resulting changes in the planet's chemical makeup. The book helps students extrapolate small-scale examples to the global level, and also discusses the instrumentation being used by NASA and its role in studies of global change. With extensive cross-referencing of chapters, figures and tables, and an interdisciplinary coverage of the topic at hand, this updated edition provides an excellent framework for courses examining global change and environmental chemistry, and is also a useful self-study guide."--Publisher's website.

Key Concepts in Environmental Chemistry provides a modern and concise introduction to environmental chemistry principles and the dynamic nature of environmental systems. It offers an intense, one-semester examination of selected concepts encountered in this field of study and provides integrated tools in explaining complex chemical problems of environmental importance. Principles typically covered in more comprehensive textbooks

are well integrated into general chapter topics and application areas. The goal of this textbook is to provide students with a valuable resource for learning the basic concepts of environmental chemistry from an easy to follow, condensed, application and inquiry-based perspective. Additional statistical, sampling, modeling and data analysis concepts and exercises will be introduced for greater understanding of the underlying processes of complex environmental systems and fundamental chemical principles. Each chapter will have problem-oriented exercises (with examples throughout the body of the chapter) that stress the important concepts covered and research applications/case studies from experts in the field. Research applications will be directly tied to theoretical concepts covered in the chapter. Overall, this text provides a condensed and integrated tool for student learning and covers key concepts in the rapidly developing field of environmental chemistry.

Intense, one-semester approach to learning Application-based approach to learning theoretical concepts In depth analysis of field-based and in situ analytical techniques Introduction to environmental modeling

This book is a very comprehensive project designed to provide complete information about environmental chemistry, including air, water, soil and all life forms on earth. The complete chemical composition and all the essential components of the atmosphere, hydrosphere, geosphere, lithosphere and biosphere are discussed in detail. Numerous forms of pollutants and their toxic effects along with sustainable solutions are provided. Not just covering the basics of environmental chemistry, the authors discuss many specific areas and issues, and they provide practical solutions. The problems of non-renewable energy processes and the merits of renewable energy processes along with future fuels are discussed in detail, making this volume a comprehensive collaboration of many other relevant fields which tries to fill the knowledge gap of all previously available books on the market. It also thoroughly covers all environment-related issues, internationally recognized standard values, and the socioeconomic impacts on society for the short and long term. A valuable reference for engineers, scientists, chemists, and students, this volume is applicable to many different fields, across many different industries, at all levels. It is a must-have for any library.

Basic Concepts of Environmental Chemistry

Environmental Chemistry and Recent Pollution Control Approaches

An Introduction to Environmental Chemistry

Fundamentals of Environmental Chemistry, Second Edition

Sampling and Analysis of Environmental Chemical Pollutants

This book provides comprehensive coverage of the theoretical developments and technological breakthroughs that have deepened our understanding of environmental pollution and human health, while also promoting a comprehensive strategy to address these problems. The respective chapters highlight groundbreaking concepts fueling the development of environmental chemistry and toxicology; revolutionary analytical and computational approaches providing novel insights into environmental health; and nature-inspired, innovative engineering solutions for tackling complex hazardous exposures. The book also features a forward-looking perspective on emerging environmental issues that call for new research and regulatory paradigms, laying the groundwork for future advances in the broad field of environmental chemistry and toxicology. Written by respected authorities in the field, A New Paradigm for Environmental Chemistry and Toxicology - From Concepts to Insights will offer an invaluable reference guide for concerned researchers and professional practitioners for years to come.

A Textbook of Environmental Chemistry and Pollution Controls. Chand Publishing

The basics of environmental chemistry and a toolbox for solving problems Elements of Environmental Chemistry uses real-world examples to help readers master the quantitative aspects of environmental chemistry. Complex environmental issues are presented in simple terms to help readers grasp the basics and solve relevant problems. Topics covered include: steady- and non-steady-state modeling, chemical kinetics, stratospheric ozone, photochemical smog, the greenhouse effect, carbonate equilibria, the application of partition coefficients, pesticides, and toxic metals. Numerous sample problems help readers apply their skills. An interactive textbook for students, this is also a great refresher course for practitioners. A solutions manual is available for Academic Adopters. Please click the solutions manual link on the top left side of this page to request the manual.

Textbook of Environmental Chemistry has been designed to provide fundamental knowledge of the principles related to environment and its chemistry so as to meet the challenging requirements of students as well as teachers of Environmental Sciences, Environmental Chemistry and Environmental Studies at graduate, postgraduate, polytechnic, and engineering levels at all Indian Universities. This book is also useful for the students and professors of general science. The book explores biological resources and their relationship with physical and chemical aspects of the environment. Due emphasis has been given to the regional as well as global environmental problems like water, air, soil and noise pollution, their types and sources, effects on the ecosystem. Key Features * The book deals with principles and chemical reactions that govern the behaviour of water, air and soil environment. * The book emphasizes on the origin of various pollutants and their control. * New and current fields of environmental science - Green Chemistry, Environmental Biotechnology,

Polymers for Environment. * It covers environmental impact, planning and laws to help readers understand how policies and plans are formulated to protect our environment. * Environmental pollution abatement engineering and technology has been discussed in-depth

An Analysis of Global Change

A Complete Guide

A Textbook Of Environmental Chemistry

Environmental Chemistry Solutions Manual

Chemistry and the Environment

Comprehensive introductory textbook for students and specialists in ecology, environmental science, and chemistry.

This book presents chemical analyses of the most pressing waste, pollution, and resource problems for the undergraduate or graduate student. Its distinctive holistic approach provides a solid introduction to theory as well as a practical laboratory manual detailing beginning and advanced experimental applications. It presents laboratory procedures at microscale conditions, for minimum waste and maximum economy.

An excellent introduction to the real world of environmental work, this book covers all phases of data collection, (planning, field sampling, laboratory analysis, and data quality assessment), and is a single source comprehensive reference for the resolution of the most common problems that environmental professionals face daily in their work. (Midwest).

Tackling environmental issues such as global warming, ozone depletion, acid rain, water pollution, and soil contamination requires an understanding of the underlying science and chemistry of these processes in real-world systems and situations. Chemistry for Environmental and Earth Sciences provides a student-friendly introduction to the basic chemistry used for the mitigation, remediation, and elimination of pollutants. Written and organized in a style that is accessible to science as well as non-science majors, this textbook divides its content into four intuitive chapters: Fire, Earth, Water, and Air. The first chapter explains classical concepts in chemistry that occur in nature such as atomic and molecular structures, chemical bonding and reactions, states of matter, phase transitions, and radioactivity. Subsequent chapters focus on the chemistry relating to the geosphere, hydrosphere, and atmosphere—including the chemical aspects of soil, water, and air pollution, respectively. Chemistry for Environmental and Earth Sciences uses worked examples and case studies drawn from current applications along with clear diagrams and concise explanations to illustrate the relevance of chemistry to geosciences. In-text and end-of-chapter questions with complete solutions also help students gain confidence in applying concepts from this book towards solving current, real-world problems.

A New Paradigm for Environmental Chemistry and Toxicology

Environmental Toxicology

The Nile River

Key Concepts in Environmental Chemistry

Microscale Laboratory Experiments

This guide to environmental chemistry covers major topical issues, including the greenhouse effect, the ozone layer, pesticides, and air and water pollution. The text offers an active problem-solving approach, with exercises incorporated throughout each chapter.

Soil and Environmental Chemistry, Second Edition, presents key aspects of soil chemistry in environmental science, including dose responses, risk characterization, and practical applications of calculations using spreadsheets. The book offers a holistic, practical approach to the application of environmental chemistry to soil science and is designed to equip the reader with the chemistry knowledge and problem-solving skills necessary to validate and interpret data. This updated edition features significantly revised chapters, averaging almost a 50% revision overall, including some reordering of chapters. All new problem sets and solutions are found at the end of each chapter, and linked to a companion site that reflects advances in the field, including expanded coverage of such topics as sample collection, soil moisture, soil carbon cycle models, water chemistry simulation, alkalinity, and redox reactions. There is also additional pedagogy, including key term and real-world scenarios. This book is a must-have reference for researchers and practitioners in environmental and soil sciences, as well as intermediate and advanced students in soil science and/or environmental chemistry. Includes additional pedagogy, such as key terms and real-world scenarios Supplemented by over 100 spreadsheets to migrate readers from calculator-based to spreadsheet-based problem-solving that are directly linked from the text Includes example problems and solutions to enhance understanding Significantly revised chapters link to a companion site that reflects advances in the field, including expanded coverage of such topics as sample collection, soil moisture, soil carbon cycle models, water chemistry simulation, alkalinity, and redox reactions

The standard-setting classic just got better! Completely revised and updated since the publication of the sixth edition, Environmental Chemistry, Seventh Edition contains eight new chapters, with significant emphasis on industrial ecology as it relates to the emerging area of "green" chemistry. It also discusses the concept of the anthrosphere as a distinct sphere of the environment. The new chapters in the Seventh Edition include: The Anthrosphere, Industrial Ecosystems, and Environmental Chemistry Principles of Industrial Ecology Industrial Ecology, Resources, and Energy Industrial Ecology for Waste Minimization, Utilization, and Treatment Chemical Analysis of Water and Wastewater Chemical Analysis of Wastes and Solids Air and Gas Analysis Chemical Analysis of Biological Materials Xenobiotics Many professionals in environmental chemistry today began their studies with this definitive textbook. Now this benchmark resource has even more to offer. It gives your students a basic understanding of the science and its applications. In addition to providing updated materials in this rapidly developing field, the Seventh Edition emphasizes the major concepts essential to the practice of environmental chemistry at the beginning of the new millennium.

New edition of an undergraduate textbook introduces the basic chemical concepts underlying environmental science.

Chemical Fate and Transport in the Environment

From Concepts to Insights

Antimony

An Analytical Approach

Environmental Chemistry for a Sustainable World

Planet Earth : rocks, life, and history -- The Earth's atmosphere -- Global warming and climate change -- Chemistry of the troposphere -- Chemistry of the stratosphere -- Analysis of air and air pollutants -- Water resources -- Water pollution and water treatment -- Analysis of water and wastewater -- Fossil fuels : our major source of energy -- Nuclear power -- Energy sources for the future -- Inorganic metals in the environment -- Organic chemicals in the environment -- Insecticides, herbicides, and insect control -- Toxicology -- Asbestos -- The disposal of dangerous wastes.

In recent years, there have been significant advances in the techniques of sampling and analysis, which has allowed the more accurate recording of environmental levels of many substances present in the environment. At the same time, processes for the remediation of contaminated matrices have evolved, through the application and/or combination of biological, physical, and chemical procedures. The purpose of this book is to present new studies aimed at determining levels of environmental pollution in various parts of the world. It also shows new alternatives for the remediation of contaminated matrices.

This book addresses key topics related to the broad subject of Environmental Chemistry . The book tries to present the topics that are essential to understand the chemical process in our environment involving air,, water, and soil. Chapters that are very

This self-contained text offers all the information necessary for readers to understand the topics surrounding environmental science and the chemistry underlying various issues. Environmental Chemistry in Society, Third Edition, provides a foundation in science, chemistry, and toxicology, including the laws of thermodynamics, chemical bonding, and environmental toxins. This text allows readers to delve into environmental topics such as energy in society, air quality, global atmospheric concerns, water quality, and solid waste management. The arrangement of the book provides instructors with flexibility in how they present the material, with crucial topics covered first. This Third Edition has been updated throughout. The book provides a statement of learning outcomes at the beginning of every chapter, group work questions to encourage learning and environmental awareness, and discussion questions to develop critical thinking skills. The Third Edition includes more illustrations than previous editions, and the energy chapter of the Second Edition has been divided into two chapters in this edition to make the topic more manageable. An inclusive international approach highlights the contributions of scientists from around the world. Chemical structures are presented with inline figures. FEATURES Offers a user-friendly approach to appeal to students with little or no science background Presents a qualitative approach to the chemistry behind many current environmental issues Updates environmental data Includes a glossary of important terms The environmental data has been updated to include the effects of COVID-19. A test bank is available to instructors upon request.

A Textbook of Environmental Chemistry and Pollution Control

Principles of Environmental Chemistry

A Comprehensive Approach

Advanced Environmental Chemistry

Soil and Environmental Chemistry

This textbook presents the chemistry of the environment using the full strength of physical, inorganic and organic chemistry, in addition to the necessary mathematics and physics. It provides a broad yet thorough description of the environment and the environmental impact of human activity using scientific principles. It gives an

accessible account while paying attention to the fundamental basis of the science, showing derivations of formulas and giving primary references and historical insight. The authors make consistent use of professionally accepted nomenclature (IUPAC and SI), allowing transparent access to the material by students and scientists from other fields. This textbook has been developed through many years of feedback from students and colleagues. It includes more than 400 online student exercises that have been class tested and refined. The book will be invaluable in environmental chemistry courses for advanced undergraduate and graduate students and professionals in chemistry and allied fields.

Environmental chemistry is a fast developing science aimed at deciphering fundamental mechanisms ruling the behaviour of pollutants in ecosystems. Applying this knowledge to current environmental issues leads to the remediation of environmental media, and to new, low energy, low emission, sustainable processes. Nanotechnology applications for alternative energies such as solar power, fuel cells, hydrogen and lithium batteries are reviewed in the first section. Recent investigations on carbon nanotubes, nanocatalysts and cyclodextrins disclose unprecedented techniques to monitor and clean pollutants such as greenhouse gases, heavy metals, pesticides, pathogens occurring in water, air and soil. The second section reviews the risks for human health of critical pollutants such as endocrine disruptors, dioxins and heavy metals contaminating seafood and sediments. An exhaustive review of DDT isomers reveals unexpected mechanisms of DDT transfer to fishes. A chapter on pollutant geochronology using river sedimentary archives provides novel insights on pollution history since the beginning of the anthropocene. This book will be a valuable source of information for engineers and students developing novel applied techniques to monitor and clean pollutants in air, wastewater, soils and sediments. The book that looks at mercury's impact on the planet today Recent research by the EPA has concluded that one in six women of childbearing age have unsafe levels of mercury in their bodies, which puts 630,000 newborn babies each year at risk of neurological impairment. Mercury poses severe risks to the health of animals and ecosystems around the world, and this book provides the essential information that anyone interested

in environmental sciences should know about the fundamentals of the entire mercury cycle. Comprised of four parts that present an overview of mercury in the environment, mercury transformations, transport, and bioaccumulation and toxicology, each chapter of Environmental Chemistry and Toxicology of Mercury includes the basic concepts of the targeted subject, a critical review of that subject, and the future research needs. This book explains the environmental behavior and toxicological effects of mercury on humans and other organisms, and provides a baseline for what is known and what uncertainties remain in respect to mercury cycling. The chapters focus on the fundamental science underlying the environmental chemistry and fate of mercury. This work will be invaluable to a wide range of policy experts, environmental scientists, and other people requiring a comprehensive source for the state of the science in this field.

Written by a leader in the field, the Fundamentals of Environmental Chemistry, Second Edition puts the fundamentals of chemistry and environmental chemistry right at your students' fingertips. Manahan presents the material in an understandable and interesting manner without being overly simplistic. They get basic coverage on: - Matter and the basis of its physical nature and behavior - Organic and biological chemistry - Chemistry of water, soil, and air - Industrial chemistry - Toxicological chemistry as it pertains to occupational health and human exposure to pollutants and toxicants - Energy, nuclear energy, and nuclear waste - Applications of nuclear science in areas such as tracing pesticide degradation and nuclear medicine - More than an introduction to this field, Fundamentals of Environmental Chemistry, Second Edition provides the foundation that gives your students an understanding of the chemical processes of the environment and the effects of pollution on those processes.

Environmental Soil Chemistry

Elements of Environmental Chemistry

Environmental Chemistry, Seventh Edition

Volume 1: Nanotechnology and Health Risk

Antimony (Sb) is an exciting chemical element ubiquitously present in our daily lives. This book provides a

coherent and interdisciplinary picture of our current understanding of this element. Subjects ranging from its mineralogy, mining and environmental chemistry to its potential impact in ecosystems and human health are discussed in this monograph.

This introductory text explains the fundamentals of the chemistry of the natural environment and the effects of mankind's activities on the earth's chemical systems. Retains an emphasis on describing how natural geochemical processes operate over a variety of scales in time and space, and how the effects of human perturbation can be measured. Topics range from familiar global issues such as atmospheric pollution and its effect on global warming and ozone destruction, to microbiological processes that cause pollution of drinking water deltas. Contains sections and information boxes that explain the basic chemistry underpinning the subject covered. Each chapter contains a list of further reading on the subject area. Updated case studies. No prior chemistry knowledge required. Suitable for introductory level courses.

This is a comprehensive textbook for upper level undergraduates which discusses the nature of heterogeneous systems in the natural environment. The links between and within the various environmental compartments - air, water, soil - are emphasized. The book describes the chemistry of natural systems, their composition and the processes and reactions that operate within and between the various compartments. Without focusing specifically on pollution, it also discusses ways in which these systems respond to perturbations, either those that are natural or those that are caused by humans. Background material from subjects such as atmospheric science, limnology, and soil science is provided in order to establish a setting for a description of the relevant chemistry. Emphasis is on general principles that can be applied in a variety of circumstances. At the same time, these principles are illustrated with examples taken from around the world. Because of issues of the environment related to every society, care has been taken to relate the subject material to situations in urban and rural areas in both highly industrialized and low-income countries. This book presents chemical analyses of our most pressing waste, pollution, and resource problems for the undergraduate or graduate student. The distinctive holistic approach provides both a solid ground in theory, as well as a laboratory manual detailing introductory and advanced experimental applications. The laboratory procedures are presented at microscale conditions, for minimum waste and maximum economy. This work fulfills an urgent need for an introductory text in environmental chemistry combining theory and practice, and is a valuable tool for preparing the next generation of environmental scientists.

Biogeochemistry

The third edition of Chemical Fate and Transport in the Environment—winner of a 2015 Textbook Excellence Award (Texty) from The Text and Academic Authors Association—explains the fundamental principles of mass transport, chemical partitioning, and chemical/biological transformations in surface waters, in soil and groundwater, and in air. Each of these three major environmental media is introduced by descriptive overviews,

followed by a presentation of the controlling physical, chemical, and biological processes. The text emphasizes intuitively based mathematical models for chemical transport and transformations in the environment, and serves both as a textbook for senior undergraduate and graduate courses in environmental science and engineering, and as a standard reference for environmental practitioners. Winner of a 2015 Texty Award from the Text and Academic Authors Association Includes many worked examples as well as extensive exercises at the end of each chapter Illustrates the interconnections and similarities among environmental media through its coverage of surface waters, the subsurface, and the atmosphere Written and organized concisely to map to a single-semester course Discusses and builds upon fundamental concepts, ensuring that the material is accessible to readers who do not have an extensive background in environmental science

The Progress and Prosperity of any country mainly depend upon the quality of its human resource, which in turn, depends upon the quality of its educational system. Higher and technical education, being at the apex of the pyramid of education, play a major role in the overall development of any country. One of the major drawbacks of the higher and technical education in our country, is the palpable gap between the world of learning and the world of work.