

Evaluation Of Anti Redeposition Aids On Laundry Detergents

"This book by Lisa Tauxe and others is a marvelous tool for education and research in Paleomagnetism. Many students in the U.S. and around the world will welcome this publication, which was previously only available via the Internet. Professor Tauxe has performed a service for teaching and research that is utterly unique."—Neil D. Opdyke, University of Florida

The role of the textile finisher has become increasingly demanding, and now requires a careful balance between the compatibility of different finishing products and treatments and the application processes used to provide textiles with desirable properties. In one comprehensive book, *Chemical finishing of textiles* details the fundamentals of final chemical finishing, covering the range of effects that result from the interplay between chemical structures and finishing products. After an introductory chapter covering the importance of chemical finishing, the following chapters focus on particular finishing techniques, from softening, easy-care and permanent press, non-slip and soil-release, to flame-retardant, antistatic and antimicrobial. Within each chapter, sections include an introduction, mechanisms, chemistries, applications, evaluations and troubleshooting. The book concludes with a chapter on the future trends in chemical finishing. *Chemical finishing of textiles* is an essential reference for all academic and industrial textile chemists and for those studying textile education programmes. Discusses the advantages and disadvantages of every important type of chemical finish Combines technical understanding and practical experience concisely Essential tool to assist in the demanding challenge of chemical finishing for textiles

Haliburton Fales 2d, former President of the New York State Bar Association and senior partner in the law firm White & Case, has been centrally, until recently, involved during his professional life of the past half century in the on-going changes that have swept through American Law. These changes, no less profound than parallel and similar changes in American society at large, are described in this engaging account of the joys of trying cases. Fales takes the reader behind closed doors at the firm, into judges' chambers, and to government and industry-sponsored roundtables of the 1980's and 90's. From this, a larger story emerges, namely that of the development of corporate law as seen by an American trial lawyer, an evolution from an enterprise primarily local into one that is immensely powerful, broadly diversified, and increasingly global.

In the book *Microbial Biofilms: Importance and applications*, eminent scientists provide an up-to-date review of the present and future trends on biofilm-related research. This book is divided with four subdivisions as biofilm fundamentals, applications, health aspects, and their control. Moreover, this book also provides a comprehensive account on microbial interactions in biofilms, pyocyanin, and extracellular DNA in facilitating *Pseudomonas aeruginosa* biofilm formation, atomic force microscopic studies of biofilms, and biofilms in beverage industry. The book comprises a total of 21 chapters from valued contributions from world leading experts in Australia, Bulgaria, Canada, China, Serbia, Germany, Italy, Japan, the United Kingdom, the Kingdom of Saudi Arabia, Republic of Korea, Mexico, Poland, Portugal, and Turkey. This book may be used as a text or reference for everyone interested in biofilms and their applications. It is also highly recommended for environmental microbiologists, soil scientists, medical microbiologists, bioremediation experts, and microbiologists working in biocorrosion, biofouling, biodegradation, water microbiology, quorum sensing, and many other related areas. Scientists in academia, research laboratories, and industry will also find it of interest.

Includes information on the Kapok tree or *Bombax ceiba*, Vol.2, p. 2847-2848.

Very Good, No Highlights or Markup, all pages are intact.

Emphasis is placed on intuitively based mathematical models for chemical transport and transformations. Although developed for a one-semester graduate course, *Chemical Fate and Transport in the Environment*, Second Edition, is also an essential reference for environmental practitioners in industry, consulting, and government agencies."--BOOK JACKET.

First published in 1996, this volume has been substantially updated to reflect new research in the conservation of stone monuments, sculpture, and archaeological sites.

This is the first book that can be considered a textbook on thin film science, complete with exercises at the end of each chapter. Ohring has contributed many highly regarded reference books to the AP list, including *Reliability and Failure of Electronic Materials* and *The Engineering Science of Thin Films*. The knowledge base is intended for science and engineering students in advanced undergraduate or first-year graduate level courses on thin films and scientists and engineers who are entering or require an overview of the field. Since 1992, when the book was first published, the field of thin films has expanded tremendously, especially with regard to technological applications. The second edition will bring the book up-to-date with regard to these advances. Most chapters have been greatly updated, and several new chapters have been added.

Plasma technologies present an environmentally-friendly and versatile way of treating textile materials in order to enhance a variety of properties such as wettability, liquid repellency, dyeability and coating adhesion. Recent advances made in commercially viable plasma systems have greatly increased the potential of using plasma technology in industrial textile finishing. This pioneering book provides an essential guide to both the technology and science related to plasmas and its practical applications in the textile industry. The first part of the book discusses the science and technology behind plasmas. Chapters give detailed and comprehensive descriptions on the characteristics of plasmas and methods of control and treatment in the processing of textiles. Both low pressure cold plasma and atmospheric pressure cold plasma processes are described as well as the diagnosis and control of plasma parameters in plasma generating reactors. A chapter is devoted to the use of plasma technology to achieve nanoscale treatment of textile surfaces. The second part of the book concentrates on specific applications of plasma technologies. Chapters cover treatments for water and oil repellency of textiles, engineering of biomedical textiles and woollen finishing techniques through the use of plasma technologies. Further chapters cover the modification of fibres for use in composites and the potential use of plasma technologies for the finishing of fabrics made of man made fibres. The final chapter in the book gives a comprehensive analysis of the surface chemical and physical characterisation of plasma treated fabrics. Written by a distinguished international team of experts, *Plasma technologies for textiles* is an invaluable reference for researchers, scientists and technologists alike. Summarises both the science and technology of plasma processing, and its practical applications Discusses how plasma technology improves textile properties such as wettability and liquid repelling An invaluable reference for researchers, scientists and technologists

Salt and Sediment Dynamics presents a thorough treatment of salt and sediment interactions and the implications of such interactions for sub-salt exploration. The book emphasizes and utilizes recent discoveries on many aspects of salt and sediment interactions, provides the theoretical framework for interpreting the increasing amount of available data on salt and sediments, and develops a self-consistent dynamical evolution model of salt structures and their interaction with surrounding sediments. The model developed in the text consists of an evolving salt structure that influences sediment motion with self-consistent evolution of sediments and salt shape. The resulting stress and strain in the sediments and the thermal focusing effects of the salt are evaluated. The salt and sediments in the model are consistent with observed geometries, a result of having freely adjustable,

observation-controlled model parameters. In addition, the book describes case histories in a variety of geological settings, thus explaining aspects of the genesis and development of salt structures, of their impact on sedimentary structural evolution, and of the impact of sediments on salt masses. The techniques developed by the authors expand the current state of knowledge regarding the evolution and dynamics of salt structures and increase the potential for effective sub-salt hydrocarbon exploration. Vol. 12 includes under the same cover the society's year-book for 1912.

The first edition appeared fourteen years ago. Since then there have been significant advances in our science that warrant an updating and revision of *Sand and Sandstone*. The main framework of the first edition has been retained so that the reader can begin with the mineralogy and textural properties of sands and sandstones, progress through their organization and classification and their study as a body of rock, to consideration of their origin-provenance, transportation, deposition, and lithification-and finally to their place in the stratigraphic column and the basin. The last decade has seen the rise of facies analysis based on a closer look at the stratigraphic record and the recognition of characteristic bedding sequences that are the signatures of some geologic process-such as a prograding shallow-water delta or the migration of a point bar on an alluvial floodplain. The environment of sand deposition is more closely determined by its place in such depositional systems than by criteria based on textural characteristics-the "fingerprint" approach. Our revision reflects this change in thinking. As in the geological sciences as a whole, the concept of plate tectonics has required a rethinking of our older ideas about the origin and accumulation of sediments-especially the nature of the sedimentary basins.

In March 1933 the economic section of the Soviet secret police arrested six British engineers employed by the Metropolitan-Vickers Electrical Company, provoking a confrontation that brought Anglo-Soviet relations to the brink of disaster. In this first full-length study of the Metro-Vickers show trial of 1933, Gordon Morrell uses some new and many underutilized Soviet and British sources to examine the political, economic, social, legal and cultural dimensions of the only Stalinist political trial of the 1930s which directly engaged a foreign power. Morrell explores the roots of the crisis in Metro-Vickers' role in the electrification of the USSR and examines the political, economic and diplomatic relations between Britain and the Soviets which gave the crisis its international importance. In doing so he casts new light on the development of industrialization in the USSR and on the apparent role of the British Industrial Intelligence Centre during the early 1930s.

The importance of electrochemistry in silicon technology has spurred intense research activity in the last five decades, resulting in a tremendous amount of experimental data and theoretical formulations. This book is a compilation and digestion of this body of information with a comprehensive collection of concrete data on the electrochemical properties of silicon, thorough characterization and analysis of the diverse phenomena of silicon electrodes, and systematic integration of concepts and theories on the reaction mechanisms. Covering all the scientific aspects and engineering applications involved in the silicon/liquid interface, this large body of information will be highly valuable for the current and future progress of the silicon science and technology. They describe how brothers Hardy and Bryan Croom developed Goodwood Plantation to over four thousand acres with nearly two hundred slaves before Hardy and his family were killed in a shipwreck, and how a twenty-year lawsuit, complicated by questions of survivorship and residency, denied Bryan control of the estate.

The Mechanics of Inhaled Pharmaceutical Aerosols, An Introduction provides a unique and comprehensive treatment of the mechanics of inhaled pharmaceutical aerosols. The book covers a wide range of topics and many new perspectives are given by drawing on research from a variety of fields. Novel, in-depth expositions of the most common delivery devices are given, including nebulizers, dry powder inhalers and propellant metered dose inhalers. The behaviour of aerosols in the respiratory tract is explained in detail, with complete coverage of the fundamentals of current deposition models. The book begins by providing a comprehensive introduction to aspects of aerosol mechanics that are relevant to inhaled pharmaceutical aerosols. It then gives an exhaustive pedagogical description of the behaviour of evaporating and condensing droplets (both aqueous and propellant-based), an introductory chapter on lung geometry and inhalation patterns, and coverage of relevant aspects of fluid mechanics in the lung. Finally, the book provides invaluable, detailed coverage on the mechanics of common pharmaceutical aerosol delivery systems and deposition in the respiratory tract. Throughout the book are many detailed numerical examples that apply the salient concepts to typical inhaled pharmaceutical aerosols. This book will be of interest to scientists and engineers involved in the research and development of inhaled pharmaceutical aerosol products. Experienced practitioners will find many new perspectives that will greatly enhance their understanding of this complex and rapidly growing field. For those delivering therapeutic agents to the lung, this book is a must-have. Students and academics will find this book an invaluable tool and for newcomers it is a worthy guide to the diverse fields that must be understood to work in the area of inhaled pharmaceutical aerosols.

Finally, an up-to-date guide to cleaning and disinfection for the food preparation and processing industries. It discusses a host of examples from various food industries as well as topics universal to many industries, including biofilm formation, general sanitizing, and clean-in-place systems. Equally, the principles related to contamination, cleaning compounds, sanitizers and cleaning equipment are addressed. As a result, concepts of applied detergency are developed in order to understand and solve problems related to the cleaning and disinfection of laboratories, plants and other industrial environments where foods and beverages are prepared. Essential reading for food industry personnel.

"Chronicles recent advances in our knowledge of polymer-surfactant systems, combining authoritative reviews of new experimental methods, instrumentation, and applications with fundamental discussions of classical methodologies and surveys of specific properties."

Soils represent the result of a complex set of interacting processes and are an integral component of the environment. Yet soils remain the most undervalued and misused of the Earth's resources. This work examines the fundamental importance of soils. Combining practical analysis and interpretation with a theoretical approach, the authors discuss the properties of soils, debate the environmental factors that influence their development, and address their resulting spatial characteristics on a global scale. Examining the impact of environmental controls on soil formation this book also analyzes the role of soils as components of natural environmental systems, and soil-human interactions. A glossary of terms aids the less scientific reader. Adopting macro and micro-scale, pure and applied, spatial and temporal, and natural and human related approaches, this book offers an understanding of soils within an environmental context. As environmental problems, such as pollution, acidification, erosion and climatic change become matters of greater concern, this work offers an understanding for readers across a spectrum of environmentally-related subjects.

Exhibiting both homogeneous and heterogeneous catalytic properties, nanocatalysts allow for rapid and selective chemical transformations, with the benefits of excellent product yield and ease of catalyst separation and recovery. This book reviews the catalytic performance and the synthesis and characterization of nanocatalysts, examining the current state of the art and pointing the way towards new avenues of research. Moreover, the authors discuss new and emerging applications of nanocatalysts and nanocatalysis, from pharmaceuticals to fine chemicals to

renewable energy to biotransformations. Nanocatalysis features contributions from leading research groups around the world. These contributions reflect a thorough review of the current literature as well as the authors' first-hand experience designing and synthesizing nanocatalysts and developing new applications for them. The book's nineteen chapters offer a broad perspective, covering: Nanocatalysis for carbon-carbon and carbon-heteroatom coupling reactions Nanocatalysis for various organic transformations in fine chemical synthesis Nanocatalysis for oxidation, hydrogenation, and other related reactions Nanomaterial-based photocatalysis and biocatalysis Nanocatalysts to produce non-conventional energy such as hydrogen and biofuels Nanocatalysts and nano-biocatalysts in the chemical industry Readers will also learn about the latest spectroscopic and microscopy tools used in advanced characterization methods that shed new light on nanocatalysts and nanocatalysis. Moreover, the authors offer expert advice to help readers develop strategies to improve catalytic performance. Summarizing and reviewing all the most important advances in nanocatalysis over the last two decades, this book explains the many advantages of nanocatalysts over conventional homogeneous and heterogeneous catalysts, providing the information and guidance needed for designing green, sustainable catalytic processes.

What happens to a chemical once it enters the natural environment? How do its physical and chemical properties influence its transport, persistence, and partitioning in the biosphere? How do natural forces influence its distribution? How are the answers to these questions useful in making toxicological and epidemiological forecasts? Environmental Chemodynamics, Second Edition introduces readers to the concepts, tools, and techniques currently used to answer these and other critical questions about the fate and transport of chemicals in the natural environment. Like its critically acclaimed predecessor, its main focus is on the mechanisms and rates of movement of chemicals across the air/soil, soil/water, and water/air interfaces, and on how natural processes work to mobilize chemicals near and across interfaces--information vital to performing human and ecological risk assessments. Also consistent with the first edition, Environmental Chemodynamics, Second Edition is organized to accommodate readers of every level of experience. The first section is devoted to theoretical underpinnings and includes discussions of mass balance, thermodynamics, transport science concepts, and more. The second section concentrates on practical aspects, including the movement between bed-sediment and water, movement between soil and air, and intraphase chemical behavior. This revised and updated edition of Louis J. Thibodeaux's 1979 classic features new or expanded coverage of: * Equilibrium models for environmental compartments * Dry deposition of particles and vapors onto water and soil surfaces * Chemical profiles in rivers and estuaries, particles and porous media * Fate and transport in the atmospheric boundary layer and within subterranean media * Chemical exchange between water column and bed-sediment * Intraphase chemical transport and fate This Second Edition of Environmental Chemodynamics also includes twice as many references and 50% more exercises and practice problems.

Sanitation Cleaning and Disinfection in the Food Industry John Wiley & Sons

Written to educate readers about recent advances in the area of new materials used in making products. Materials and their properties usually limit the component designer. * Presents information about all of these advanced materials that enable products to be designed in a new way * Provides a cost effective way for the design engineer to become acquainted with new materials * The material expert benefits by being aware of the latest development in all these areas so he/she can focus on further improvements

Advancements in science and engineering have occurred at a surprisingly rapid pace since the release of the seventh edition of this encyclopedia. Large portions of the reference have required comprehensive rewriting and new illustrations. Scores of new topics have been included to create this thoroughly updated eighth edition. The appearance of this new edition in 1994 marks the continuation of a tradition commenced well over a half-century ago in 1938 Van Nostrand's Scientific Encyclopedia, First Edition, was published and welcomed by educators worldwide at a time when what we know today as modern science was just getting underway. The early encyclopedia was well received by students and educators alike during a critical time span when science became established as a major factor in shaping the progress and economy of individual nations and at the global level. A vital need existed for a permanent science reference that could be updated periodically and made conveniently available to audiences that numbered in the millions. The pioneering VNSE met these criteria and continues today as a reliable technical information source for making private and public decisions that present a backdrop of technical alternatives.

In today's market, custom formulated surfactants are offered for a wide range of applications. The need for surfactants in detergents, cleaning agents, cosmetics & toiletries is second only to an expanding demand in industrial applications. But even within the non-industrial areas the demands have undergone significant changes in recent years. For example, washing and cleaning temperatures have substantially decreased with increased energy conservation attitudes, and more stringent regulatory requirements in the area of ecology and toxicology are leading to new product profiles. New manufacturing technologies and an increased utilization of natural raw materials also factor into this continuing evolution. These changes and trends have been described in numerous publications. However, a summary and survey of these developments is currently missing. The book presented here "Surfactants in Consumer Products" is intended to close this gap. The editor and authors dedicate this work to Dr. Dr. h.c. Konrad Henkel on the occasion of his 70th birthday. Dr. Henkel, himself a scientist and industrialist, contributed significantly to developments in the surfactant field. In the nineteen-fifties, he initiated the change from soap based detergents to synthetic detergents within Henkel. At the same time, dishwashing detergents utilizing various synthetic surfactants were also developed, and became the basis for modern manual and mechanical dishwashing.

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