

Chemical Formulation An Overview Of Surfactant Based Chemical Preparations Used In Everyday Life Rsc Paperbacks

Chemical Formulation Surfactant Replacement Therapy Surfactant - Based Separation Processes Surfactant-based Separations Surfactant - Based Separation Processes Ionic Liquid-Based Surfactant Science Surfactants from Renewable Raw Materials Handbook of Smart Materials in Analytical Chemistry Sugar-Based Surfactants Handbook of Surfactants Surfactants in Precision Cleaning Liquid-Phase Extraction Protein-Based Surfactants Surfactants in Consumer Products Surfactants in Personal Care Products and Decorative Cosmetics Surfactant Science and Technology Cationic Surfactants The Aqueous Phase Behavior of Surfactants Surfactants in Personal Care Products and Decorative Cosmetics, Third Edition Sugar-based Surfactants Silicone Surfactants Biobased Surfactants Chemistry and Technology of Surfactants Interfacial Processes and Molecular Aggregation of Surfactants Chemistry and Technology of Surfactants Development of a Surfactant-based in Situ Extraction from Authentic Feedstocks Solubilization in Surfactant Aggregates Microbiotechnology Based Surfactants and Their Applications Surfactants from Renewable Resources Handbook of Research on Advancements in Cancer Therapeutics Surfactants in Solution Application and Characterization of Surfactants Surfactants in Chemical/Process Engineering Surfactant-based Mobility Control Novel Surfactants Supramolecular Catalysis Preservation of Surfactant Formulations Carbohydrate Chemistry Surfactant Science and Technology Surfactants in Upstream E&P

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Interfacial Processes and Molecular Aggregation of Surfactants Nov 07 2020 Given the enormous interest in surface phenomena in areas ranging from materials science to applications in life science, this volume is a very timely addition to the literature. Emphasis is on surfactants mediating interfacial and molecular aggregation phenomena, and the following topics are reviewed in particular: dissolution rates, equilibrium adsorption, mixing rules, and spreading on a solid surface of surfactants, as well as the role of surfactants in mediating a range of processes, such as the fabrication of various nanomaterials. Written and edited by leading experts, this volume is dedicated to Professor Dinesh O. Shah, one of the pioneers in this field.

Novel Surfactants Nov 27 2019 Extensively revised and expanded, this timely reference discusses the synthesis, properties, and potential applications of popular and emerging surfactant compounds and systems. This reference reflects current research trends in green surfactants, the production of surfactants using biotechnological methods, and surfactants based on natural building blocks. Offering nearly 2000 valuable references, the Second Edition contains five new chapters analyzing aspects of natural surfactants, and examines surfactants produced by microorganisms, surfactant types based on sugar as hydrophilic building block, and surfactant classes based on fatty acids as hydrophobic building block.

Application and Characterization of Surfactants Feb 29 2020 The surfactants are among the materials that have a significant importance in everyday life of human. The rapid growth in science and technology has opened new horizons in a very wide range, in which the surfactants play a major and vital role. Hence, the increasing number of applications as well as arising environmental issues has made this relatively old topic still a hot research theme. In the first section of this book, some of the applications of surfactants in various fields such as biology and petroleum industry, as well as their environmental effects, are described. In Section 2 some experimental techniques used for characterization of the surfactants have been discussed.

Chemical Formulation Oct 31 2022 Bridging the gap between theory and application, this book will be invaluable to anyone wishing to broaden their knowledge of applied chemistry.

Liquid-Phase Extraction Nov 19 2021 Liquid Phase Extraction thoroughly presents both existing and new techniques in liquid phase extraction. It not only provides all information laboratory scientists need for choosing and utilizing suitable sample preparation procedures for any kind of sample, but also showcases the contemporary uses of sample preparation techniques in the most important industrial and academic project environments, including countercurrent chromatography, pressurized-liquid extraction, single-drop Microextraction, and more. Written by recognized experts in their respective fields, it serves as a one-stop reference for those who need to know which technique to choose for liquid phase extraction. Used in conjunction with a similar release, Solid Phase Extraction, it allows users to master this crucial aspect of sample preparation. Defines the current state-of-the-art in extraction techniques and the methods and procedures for implementing them in laboratory practice Includes extensive referencing that facilitates the identification of key information Aimed at both entry-level scientists and those who want to explore new techniques and methods

Chemistry and Technology of Surfactants Dec 09 2020 Surfactants are used throughout industry as components in a huge range of formulated products or as effect chemicals in the production or processing of other materials. A detailed understanding of the basis of their activity is required by all those who use surfactants, yet the new graduate or postgraduate chemist or chemical engineer will generally have little or no experience of how and why surfactants work. Chemistry & Technology of Surfactants is aimed at new graduate or postgraduate level chemists and chemical engineers at the beginning their industrial careers and those in later life who become involved with surfactants for the first time. The book is a straightforward and practical survey of the chemistry of surfactants and their uses, providing a basic introduction to surfactant theory, information on the various types of surfactant and some application details. This will allow readers to build on their scientific education the concepts and principles on which the successful use of surfactants, across a wide range of industries, is based.

Surfactants in Consumer Products Sep 17 2021 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.

Sugar-based Surfactants Mar 12 2021 Touted as the new darling of the chemical industry, alkyl polyglycosides are gaining in popularity due to the fact that they are readily biodegradable, low-toxic, and made from renewable resources. Sugar-Based Surfactants compiles the most recent and relevant aspects of sugar-based surfactants, including self-association, phase behavior, and interfacial properties. Focusing on both colloidal and interfacial science, the book deals with the adsorption of surfactants in both the air-liquid and solid-liquid interfaces. It also covers new advances in surfactant science, such as the development of a family of potent surface active agents that are non-toxic, and thus usable in ubiquitous consumer products

Surfactants in Solution Mar 31 2020 Contains selected invited papers presented at the 10th International Symposium on Surfactants in Solution held in Caracas, Venezuela. The volume covers phase behaviour of monolayers, contact angle hysteresis, micellar relaxation, micellar catalyzed reactions, polymerization in microemulsions, polymer-surfactant complexation, asphaltenes, and more.

Solubilization in Surfactant Aggregates Aug 05 2020 This work covers topics ranging from fundamental studies of solubilization to practical technological applications of the phenomenon. It reviews the solubilization of organic materials into surfactant aggregates, including micelles, vesicles and admicelles. The book also details methods of measuring solubilization that utilize both classical and newer instrumental techniques. It is intended for physical, surface, colloid and surfactant chemists; chemical,

environmental and civil engineers; and upper-level undergraduate and graduate students in these disciplines.

Surfactants in Personal Care Products and Decorative Cosmetics, Third Edition Apr 12 2021 From anti-aging creams to make-up, surfactants play a key role as delivery systems for skin care and decorative cosmetic products. Surfactants in Personal Care Products and Decorative Cosmetics, Third Edition presents a scientific basis in surfactant science and recent advances in the industry necessary for understanding, formulating, and testing surfactant-based cosmetics and cosmeceuticals. Presenting a new perspective from the previous edition, this book details the function of emulsions, microemulsions, micelles, and nanostructures in the formulation of personal care products and decorative cosmetics and examines their ability to deliver specific benefits to the skin. This edition begins by describing new research into skin structure and cellular processes. Then it presents the latest methods and techniques for substantiating claims and assessing the effectiveness of moisturizers, anti-aging treatments, and sunscreens. Subsequent chapters focus on surfactant solution properties, surfactant emulsions, nanotechnology, cleanser/conditioner systems, and pigment dispersions. Following a detailed examination on the role of surfactants in finished pigmented products, this edition also discusses optimal formulation strategies and surfactant raw materials for enhancing pigmented products. The third edition of Surfactants in Personal Care Products and Decorative Cosmetics, Third Edition helps formulators identify and overcome the challenges involved in developing new applications and enhancing the benefits of cosmetic and cosmeceutical products.

Preservation of Surfactant Formulations Sep 25 2019 Microbes are known to live in an enormous range of environments. Their ability to survive and proliferate in diverse industrial systems is often a surprise to those not exposed to these problems in their work. These systems contain a range of potential carbon sources, one common theme being surfactants. Surfactants are often not the components most prone to spoilage since some systems contain highly susceptible natural components, such as starch and xanthum gum, but the surfactant is a key part of the formulation, and its extensive breakdown usually means that the material is beyond recovery. The aim of this book is to describe in detail all aspects of the preservation of surfactant containing materials. The book should be viewed as being in three discrete sections. • chapters 1-5 deal with and summarise essential background information • chapters 6-11 discuss in detail various end use applications • chapters 12-15 outline the regulatory and toxicology implication associated with the safe handling of preservatives Given the format of the book there is inevitably some duplication of information in the middle section with different authors describing essentially the same phenomena but on different substrates. I hope the reader will find that although different chapters touch on the same topics the information around these areas is sufficiently different to justify their inclusion in this book and to be of interest. It should also demonstrate what can be the most useful source of information, the hard practical experience of the authors.

Surfactants in Precision Cleaning Dec 21 2021 Surfactants in Precision Cleaning: Removal of Contaminants at the Micro and Nanoscale is a single source of information on surfactants, emulsions, microemulsions and detergents for removal of surface contaminants at the micro and nanoscale. The topics covered include cleaning mechanisms, effect of surfactants, types of stable dispersions (emulsions, microemulsions, surfactants, detergents, etc.), cleaning technology, and cleaning applications. Users will find this volume an excellent resource on the use of stable dispersions in precision cleaning. Single source of current information on surfactants, emulsions, microemulsions and detergents for precision cleaning applications Includes a list of extensive reference sources Discusses specific selection and properties of surfactants and their use in cleaning Provides a guide for cleaning applications in different industry sectors

Handbook of Smart Materials in Analytical Chemistry Mar 24 2022 A comprehensive guide to smart materials and how they are used in sample preparation, analytical processes, and applications This comprehensive, two-volume handbook provides detailed information on the present state of new materials tailored for selective sample preparation and the legal frame and environmental side effects of the use of smart materials for sample preparation in analytical chemistry, as well as their use in the analytical processes and applications. It covers both methodological and applied analytical aspects, relating to the development and application of new materials for solid-phase extraction (SPE) and solid-phase microextraction (SPME), their use in the different steps and techniques of the analytical process, and their application in specific fields such as water, food, air, pharmaceuticals, clinical sciences and forensics. Every chapter in Handbook of Smart Materials in Analytical Chemistry is written by experts in the field to provide a comprehensive picture of the present state of this key area of analytical sciences and to summarize current applications and research literature in a critical way. Volume 1 covers New Materials for Sample Preparation and Analysis. Volume 2 handles Analytical Processes and Applications. Focuses on the development and applications of smart materials in analytical chemistry Covers both, methodological and applied analytical aspects, for the development of new materials and their use in the different steps and techniques of the analytical process and their application in specific fields Features applications in key areas including water, air, environment, pharma, food, forensic, and clinical Presents the available tools for the use of new materials suitable to aid recognition process to the sample preparation and analysis A key resource for analytical chemists, applied laboratories, and instrument companies Handbook of Smart Materials in Analytical Chemistry, 2V Set is an excellent reference book for specialists and advanced students in the areas of analytical chemistry, including both research and application environments.

Silicone Surfactants Feb 08 2021 "Serves as a comprehensive introduction to the preparation, uses, and physical chemistry of silicone surfactants--focusing on silicone polyoxyalkylene copolymers that are surface active in both aqueous and nonaqueous systems. Covers applications in the manufacture of polyurethane foam, coatings, wetting agents, fabric finishes, and polymer surface modifiers."

Surfactant - Based Separation Processes Jun 26 2022 Focuses on novel techniques and reviews established methods for surfactant-based separation processes that can be widely applied in industry. Describes new extraction techniques, micellar-enhanced ultrafiltration and admicellar chromatography, protein extraction using reverse micelles, surfactant-en

Biobased Surfactants Jan 10 2021 Biobased Surfactants: Synthesis, Properties, and Applications, Second Edition, covers biosurfactant synthesis and applications and demonstrates how to reduce manufacturing and purification costs, impurities, and by-products. Fully updated, this book covers surfactants in biomedical applications, detergents, personal care, food, pharmaceuticals, cosmetics, and nanotechnology. It reflects on the latest developments in biobased surfactant science and provides case scenarios to guide readers in efficient and effective biobased surfactant application, along with strategies for research into new applications. This book is written from a biorefinery-based perspective by an international team of experts and acts as a key text for researchers and practitioners involved in the synthesis, utilization, and development of biobased surfactants. Describes new and emerging biobased surfactants and their synthesis and development Showcases an interdisciplinary approach to the topic, featuring applications to chemistry, biotechnology, biomedicine, and other areas Presents the entire lifecycle of biobased surfactants in detail

Development of a Surfactant-based in Situ Extraction from Authentic Feedstocks Sep 05 2020 This work focused on the development of a surfactant-based extraction process as a competitive process for the recovery of biomaterials from authentic feedstocks. The stability of the extraction was demonstrating in a batch and a continuous mode. Therefore, it was possible to apply the technique for the separation of sensitive biomaterials in technical and pilot scale. Hence, attention was given to the potential of the process as a new separation tool for sensitive, valuable compounds in the biotechnology.

Surfactants in Chemical/Process Engineering Jan 28 2020 The first reference to link chemical engineering technologies and surfactant science in suchbreadth of focus, Surfactants in Chemical/Process Engineering features contributionsby major authorities in chemical engineering whose applications have opened important newfields for surfactant use. These applications include dispersion science, separation processes, oilrecovery, microemulsions, and environmental control.This volume discusses ultrafiltration processes, flotation, metal extractions, and more ...examines surfactants in process streams for such industrial separations as micellar-enhancedultrafiltration, adsorbent regeneration, micellar extractions, and oiVwater demulsificationdescribes methodologies for separations of fatty acids, metals, minerals and impurities,solvents, and hydrocarbons for cost-saving industrial and consumer product manufacture . . . details techniques for developing and optimizing formulations for superior agricultural plantcontrol or enhancement systems, micro- and macroemulsions, and liquid surfactant membranes... and looks closely at emulsion polymers in soil stabilizations, protective coatings, sealants,adhesives, textile processing, paper finishing, specialty concretes, and tire manufacture.

Chemistry and Technology of Surfactants Oct 07 2020 Surfactants are used throughout industry as components in a huge range of formulated products or as effect chemicals in the production or processing of other materials. A detailed understanding of the basis of their activity is required by all those who use surfactants, yet the new graduate or postgraduate chemist or chemical engineer will generally have little or no experience of how and why surfactants work. Chemistry & Technology of Surfactants is aimed at new graduate or postgraduate level chemists and chemical engineers at the beginning their industrial careers and those in later life who become involved with surfactants for the first time. The book is a straightforward and practical survey of the chemistry of surfactants and their uses, providing a basic introduction to surfactant theory, information on the various types of surfactant and some application details. This will allow readers to build onto their scientific education the concepts and principles on which the successful use of surfactants, across a wide range of industries, is based.

Surfactant-based Separations Jul 28 2022 Because they are biodegradable and work well in low energy separations, surfactants are an active area of interest in separations science. This book covers surfactant-based separations for the chemical and biochemical process industries and analytical chemistry. It includes discussion of widely used processes and novel techniques, such as, surfactant-enhanced ultrafiltration, ground water and soil remediation, surfactant absorption and flotation processes, extraction processes, recycling of paper and plastics using surfactant, and analytical separations using surfactants.

Surfactant - Based Separation Processes Aug 29 2022 Focuses on novel techniques and reviews established methods for surfactant-based separation processes that can be widely applied in industry. Describes new extraction techniques, micellar-enhanced ultrafiltration and admicellar chromatography, protein extraction using reverse micelles, surfactant-en

Handbook of Research on Advancements in Cancer Therapeutics May 02 2020 The complexity of cancer demands an integrated approach from both a cancer biology standpoint and a pharmaceutical basis to understand the different anticancer modalities. Current research has been focused on conventional and newer anticancer modalities, recent discoveries in cancer research, and also the advancements in cancer treatment. There is a current need for more research on the advances in cancer

therapeutics that bridge the gap between basic research (pharmaceutical drug development processes, regulatory issues, and translational experimentation) and clinical application. Recent promising discoveries such as immunotherapies, promising therapies undergoing clinical trials, synthetic lethality, carbon beam radiation, and other exciting targeted therapies are being studied to improve and advance the studies of modern cancer treatment. The Handbook of Research on Advancements in Cancer Therapeutics serves as a comprehensive guide in modern cancer treatment by combining and merging the knowledge from both cancer biology and the pharmacology of anticancer modalities. The chapters come from multi-disciplinary backgrounds, including scientists and clinicians from both academia and various industries, to discuss nascent personalized therapies and big data-driven cancer treatment. While highlighting topic areas that include cancer prevention, cancer therapeutics, and cancer treatments through the lenses of technology, medicine/drugs, and alternate therapies, this book is ideally intended for oncologists, radiation oncologists, surgical oncologists, and cancer biologists, along with practitioners, stakeholders, researchers, academicians, and students who are interested in understanding the most fundamental aspects of cancer and the available therapeutic opportunities.

Carbohydrate Chemistry Aug 24 2019 This invaluable volume contains analysed, evaluated and distilled information on the latest in carbohydrate research. The discovery and synthesis of novel carbohydrates and mimetics with diverse applications continues to be a major challenge for carbohydrate chemists. The understanding of the structure and function of carbohydrates and glycoconjugates remains vital in medicine and molecular biology. Covering both chemical and biological science related to the particular volume topic, this series demonstrates the interdisciplinary nature of modern carbohydrate research, and benefits any researcher who wishes to learn about the latest developments in the carbohydrate field.

Ionic Liquid-Based Surfactant Science May 26 2022 This volume will be summarized on the basis of the topics of Ionic Liquids in the form of chapters and sections. It would be emphasized on the synthesis of ILs of different types, and stabilization of amphiphilic self-assemblies in conventional and newly developed ILs to reveal formulation, physicochemical properties, microstructures, internal dynamics, thermodynamics as well as new possible applications. It covers: Topics of ionic liquid assisted micelles and microemulsions in relation to their fundamental characteristics and theories Development bio-ionic liquids or greener, environment-friendly solvents, and manifold interesting and promising applications of ionic liquid based micelles and microemulsions

Surfactants from Renewable Raw Materials Apr 24 2022 Surfactants are often completely invisible to us and yet they are present in almost every chemical that we use in our daily life. They are found in toothpastes, cosmetics, sunscreens, mayonnaise, detergents, and an array of cleaning products. Traditional surfactants are known to have adverse environmental impacts spurring research into eco-friendly and cost-effective surfactants from renewable resources. Surfactants from Renewable Raw Materials examines the class of surfactants synthesized using plant-based raw materials detailing their properties, applications, bioavailability, and biodegradability. The concluding chapter reviews patent activity over the last decade. Additional features include: Addresses the tremendous variation found in the raw materials used to synthesize commercially available surfactants. Explores the selection of raw materials based upon the desired hydrophobic group or hydrophilic group to be incorporated into the product. Examines the characteristics and medicinal applications of pulmonary surfactants in preterm babies as well as their probable contribution in COVID-19 Discusses the biodegradability of surfactants to assist with the determination of truly green surfactants. This comprehensive reference will prove indispensable for professional and academic researchers creating or working with bio-based surfactants.

Cationic Surfactants Jun 14 2021

Surfactants from Renewable Resources Jun 02 2020 Most modern surfactants are readily biodegradable and exhibit low toxicity in the aquatic environment, the two criteria for green surfactants. However the majority are synthesised from petroleum, so over the past decade the detergent industry has turned its attention to developing greener routes to create these surfactants via renewable building blocks. Surfactants from Renewable Resources presents the latest research and commercial applications in the emerging field of sustainable surfactant chemistry, with emphasis on production technology, surface chemical properties, biodegradability, ecotoxicity, market trends, economic viability and life-cycle analysis. Reviewing traditional sources for renewable surfactants as well as recent advances, this text focuses on techniques with potential for large scale application. Topics covered include: Renewable hydrophobes from natural fatty acids and forest industry by-products Renewable hydrophiles from carbohydrates, amino acids and lactic acid New ways of making renewable building blocks; ethylene from renewable resources and complex mixtures from waste biomass Biosurfactants Surface active polymers This book is a valuable resource for industrial researchers in companies that produce and use surfactants, as well as academic researchers in surface and polymer chemistry, sustainable chemistry and chemical engineering.

Surfactants in Upstream E&P Jun 22 2019 This edited book explores the use of surfactants in upstream exploration and production (E&P). It provides a molecular, mechanistic and application-based approach to the topic, utilising contributions from the leading researchers in the field of organic surfactant chemistry and surfactant chemistry for upstream E&P. The book covers a wide range of problems in enhanced oil recovery and surfactant chemistry which have a large importance in drilling, fracking, hydrate inhibition and conformance. It begins by discussing the fundamentals of surfactants and their synthesis. It then moves on to present their applicability to a variety of situations such as gas injections, shale swelling inhibition, and acid stimulation. This book presents research in an evolving field, making it interesting to academics, postgraduate students, and experts within the field of oil and gas.

Surfactant Science and Technology Jul 16 2021 Surfactant research explores the forces responsible for surfactant assembly and the critical industrial, medical, and personal applications, including viscosity control, microelectronics, drug stabilization, drug delivery, cosmetics, enhanced oil recovery, and foods. Surfactant Science and Technology: Retrospects and Prospects, "a Festschrift in honor of Dr. Kash Mittal," provides a broad perspective with chapters contributed by leaders in the fields of surfactant-based physical, organic, and materials chemistries. Many of the authors participated in a special symposium in Melbourne, Australia, honoring Kash Mittal's 100th edited book at the 18th Surfactants in Solution (SIS) meeting. Each chapter provides an overview of a specific research area, with discussions on past, present, and future directions. The book is divided into six parts. Part I reviews the evolution of theoretical models for surfactant self-assembly, and introduces a model for interpreting ion-specific effects on aggregate properties. Part II focuses on interactions of surfactant solutions with solid supports; uses contact angles to understand hydrophobic/hydrophilic changes in a lipid layer; uses surface tension to understand molecular arrangements at interfaces; reviews spreading phenomena; discusses pattern formation on solid surfaces; and applies tensiometry to probe flavor components of espresso. Part III discusses novel DNA-based materials, multifunctional poly(amino acid)s-based graft polymers for drug delivery, and polymeric surfactants for stabilizing suspensions and emulsions. Part IV introduces farm-based biosurfactants from natural products and "greener" biosurfactants from bacteria. Part V explores lyotropic liquid crystals and their applications in triggered drug release; microemulsion properties and controlled drug release; the role of hydrotopes in formulations and in enhancing solubilization in liquid crystals; the potential of ionic liquids to generate tunable and selective reaction media; and provides an overview of stimuli-responsive surfactants. Focusing on emulsions, Part VI reviews the design of emulsion properties for various commercial applications, the role of surfactants in the oil and gas industries, and surfactant mechanisms for soil removal via microemulsions and emulsification.

Surfactants in Personal Care Products and Decorative Cosmetics Aug 17 2021 From anti-aging creams to make-up, surfactants play a key role as delivery systems for skin care and decorative cosmetic products. Surfactants in Personal Care Products and Decorative Cosmetics, Third Edition presents a scientific basis in surfactant science and recent advances in the industry necessary for understanding, formulating, and testing surfactant-based cosmetics. Presenting a new perspective from the previous edition, this book details the function of emulsions, microemulsions, micelles, and nanostructures in the formulation of personal care products and decorative cosmetics and examines their ability to deliver specific benefits to the skin. This edition begins by describing new research into skin biochemistry. Then it presents the latest methods for substantiating claims and assessing the effectiveness of moisturizers, anti-aging treatments, and sunscreens. Subsequent chapters focus on surfactant solution properties, surfactant emulsions, nanotechnology, cleanser/conditioner systems, and pigment dispersions. This edition also examines the role of surfactants in finished pigmented products and discusses optimal formulation strategies and surfactant raw materials for enhancing pigmented products. Features, Investigates the use of surfactants in personal care products, from basic science to consumer applications, Details fundamentals of surfactants in emulsions, microemulsions, micelles, and nanostructures, Includes new research on lipid assembly, lipid organization, and barrier function, Examines noninvasive techniques for assessing cosmetic benefit claims, Considers methods for gathering consumer input and different types of consumer testing, Discusses formulation strategies for optimizing cosmetic and cosmeceutical benefits with the aid of surfactants, Contains full chapters on assessing the effectiveness of UV sunscreens and self-tanners, The third edition of Surfactants in Personal Care Products and Decorative Cosmetics helps formulators identify and overcome the challenges involved in developing new applications and enhancing the benefits of cosmetic and personal care products. Book jacket.

Surfactant Replacement Therapy Sep 29 2022

Surfactant Science and Technology Jul 24 2019 A general introduction to surfactants, surface activity, and surfactant applications Important advances in the tools available for studying the activity of surfactants has significantly increased scientific understanding of interfaces at the molecular level. However, there is still much to be learned. In this Third Edition of the successful classic, author and expert Drew Myers combines the latest information available in the field of surfactants with his original, accessible text on the subject. Now fully updated to reflect recent developments in working with surfactants in both model and practical systems, the Third Edition of Surfactant Science and Technology provides a solid introduction to the field of surfactant science. Written especially for beginners and nonspecialists who would like a practical but not necessarily comprehensive knowledge of the field, this clear, cogent text conveys the most fundamental and useful concepts of surfactant action and application. New chapters bring readers up to date on current biological and medical applications of surfactants, as well as applications in food science, cosmetics, and other areas. In addition to new chapters, Surfactant Science and Technology includes illustrative problems at the end of each chapter. These problems explain concepts discussed and stimulate imaginative solutions on the part of the reader. A helpful bibliography of supplementary resources for readers who desire more detail has also been included. Surfactant Science and Technology, Third Edition is an invaluable resource for surface and polymer chemists, chemical and industrial engineers, and a wide range of chemistry students.

The Aqueous Phase Behavior of Surfactants May 14 2021 Synthesis of Surfactants; Equilibrium between phases; Relationship between the molecular structure of long chain molecules and their phase behaviour, and methods for acquisition of phase

information.

Surfactant-based Mobility Control Dec 29 2019

Protein-Based Surfactants Oct 19 2021 "Describes preparation techniques of protein-based surfactants (PBS) in the laboratory by a variety of chemical and enzymatic means, production by using different types of amino acids, and marketplace applications of PBS in medical and personal care products, detergents, cosmetics, antimicrobial agents, and foods."

Microbiotechnology Based Surfactants and Their Applications Jul 04 2020 Biosurfactants are structurally diverse group of bioactive molecules produced by a variety of microorganisms. They are secondary metabolites that accumulate at interfaces, reduce surface tension and form micellar aggregates. This research topic describes few novel microbial strains with a focus on increasing our understanding of genetics, physiology, regulation of biosurfactant production and their commercial potentials. A major stumbling block in the commercialization of biosurfactants is their high cost of production. Many factors play a significant role in making the process cost-effective and the most important one being the use of low-cost substrates such as agricultural residues for the production of biosurfactants. With the stringent government regulations coming into effect in favor of production and usage of the bio-based surfactants, many new companies aim to commercialize technologies used for the production of biosurfactants and to bring down costs. This Research Topic covers a compilation of original research articles, reviews and research commentary submitted by researchers enthusiastically working in the field of biosurfactants and highlights recent advances in our knowledge of the biosurfactants and understanding of the biochemical and molecular mechanisms involved in their production, scale-up and industrial applications. Apart from their diverse applications in the field of bioremediation, enhanced oil recovery, cosmetic, food and medical industries, biosurfactants can also boast off their unique eco-friendly nature to attract consumers and give the chemical surfactants a tough competition in the global market. This biosurfactant focused research topic aims to summarize the current achievements and explore the direction of development for the future generation of biosurfactants and bioemulsifiers. Some of the biosurfactant optimization processes presented are well-structured and already have a well-established research community. We wish to stimulate on-going discussions at the level of the biosurfactant production including common challenges in the process development, novel organisms and new feedstock and technologies for maximum benefit, key features of next generation biosurfactants and bioemulsifiers. We have compiled the research outputs of international leaders in the field of biosurfactant particularly on the development of a state-of-the-art and highly-efficient process platform.

Sugar-Based Surfactants Feb 20 2022 Touted as the new darling of the chemical industry, alkyl polyglycosides are gaining in popularity due to the fact that they are readily biodegradable, low-toxic, and made from renewable resources. Sugar-Based Surfactants compiles the most recent and relevant aspects of sugar-based surfactants, including self-association, phase behavior, and interfacial properties. Focusing on both colloidal and interfacial science, the book deals with the adsorption of surfactants in both the air-liquid and solid-liquid interfaces. It also covers new advances in surfactant science, such as the development of a family of potent surface active agents that are non-toxic, and thus usable in ubiquitous consumer products

Supramolecular Catalysis Oct 26 2019 Supramolecular Catalysis Provides a timely and detailed overview of the expanding field of supramolecular catalysis The subdiscipline of supramolecular catalysis has expanded in recent years, benefiting from the development of homogeneous catalysis and supramolecular chemistry. Supramolecular catalysis allows chemists to design custom-tailored metal and organic catalysts by devising non-covalent interactions between the various components of the reaction. Edited by two world-renowned researchers, Supramolecular Catalysis: New Directions and Developments summarizes the most significant developments in the dynamic, interdisciplinary field. Contributions from an international panel of more than forty experts address a broad range of topics covering both organic and metal catalysts, including emergent catalysis by self-replicating molecules, switchable catalysis using allosteric effects, supramolecular helical catalysts, and transition metal catalysis in confined spaces. This authoritative and up-to-date volume: Covers ligand-ligand interactions, assembled multi-component catalysts, ligand-substrate interactions, and supramolecular organocatalysis and non-classical interactions Presents recent work on supramolecular catalysis in water, supramolecular allosteric catalysis, and catalysis promoted by discrete cages, capsules, and other confined environments Highlights current research trends and discusses the future of supramolecular catalysis Includes full references and numerous figures, tables, and color illustrations Supramolecular Catalysis: New Directions and Developments is essential reading for catalytic chemists, complex chemists, biochemists, polymer chemists, spectroscopists, and chemists working with organometallics.

Handbook of Surfactants Jan 22 2022 The worldwide consumption of surfactants now exceeds several million tonnes per annum. Six of the major types represent approximately 80% of the volume consumed, whereas the remaining 20% is made up of approximately 40 different chemical types. Commercially produced surface active agents are not pure chemicals, and within each chemical type there can be tremendous variation. Technical staff who are not familiar with surfactants are frequently bewildered by the enormous variety of different products on the market and the vast body of literature which exists on the composition and properties of surfactants. The selection of the best surfactant for any given use therefore becomes a major problem. This volume arose from the clear need to have available a simple reference book summarising the different types of surfactants on the market and their properties. The concept and structure of the book evolved from early attempts to define chemical structure/property relationships of all the different types of surfactants commercially available, into a simple handbook providing essential background information for the surfactant user. It is realised that most users will be developing their own data bank of structure/end use property relationships and they will therefore be the experts on end use.

chemical-formulation-an-overview-of-surfactant-based-chemical-preparations-used-in-everyday-life-rsc-paperbacks

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