Specialty Oils And Fats In Food And Nutrition Properties Processing And Applications Woodhead Publishing Series In Food Science Technology And Nutrition

Healthful Lipids addresses critical and current regulatory issues and emerging technologies, as well as the efforts made toward the production of healthier lipids. This book examines the latest technological advancements and the emerging technologies in processing and analysis, health-related concerns, and strategies used in the production and appl

This first volume in a series is intended to provide up-to-date information on specific topics in oils and fats. The book will be especially valuable for any practising scientist or technologist who deals in any way with oils and fats whether from a nutritional, surfactant, cosmetic or analytical chemistry point of view. In addition there is sufficient depth in most of the articles to catch the imagination of many more senior managers in the industry. The oils and fats industry is closely aligned with the food industry and it is no surprise to find that five of the chapters (1, 2, 3, 6 and 7) are written from a food perspective. The current arguments about diets and their fat content are well developed in Dr Enser's chapter on meat lipids. He has presented a very balanced picture explaining that there are many reports which contradict the fashionable 'saturated fatty acids are bad' theory. This chapter will do much to illustrate the dietary implications of meat lipids and should stimulate discussion and further research.

Oils and fats are almost ubiquitous in food processing – whether naturally occurring in foods or added as ingredients for functional benefits and, despite the impression given by several sources to the contrary, they remain an essential part of the human diet. However, it is increasingly apparent that both the quantity and the quality of the fat consumed are vital to achieving a balanced diet. Health concerns regarding high-fat diets continue to have a high profile, and still represent a pressing issue for food manufacturers. This volume provides a concise and easy-to-use reference on the nature of oils and fats for those working in the food industry and for those in the media seeking to advise the public on consumption. Written in a style that makes the concepts and information contained easily accessible, and using a minimum of chemical structures, the nature and composition of the constituents of oils and fats are explained. The major sources of food lipids (vegetable and animal fats) are outlined, along with their physical characteristics. The book also focuses on the current main concerns of the food industry regarding oils and fats use, including: the nutritional properties of fats and oils and their various components; links between chemical structure and physiological properties; and the role of lipids in some of the more important disease conditions such as obesity, diabetes, coronary heart disease and cancer. The final chapter is devoted to a description of the most common food uses of oils and fats. The book will be of interest to food industry professionals, students or others who require a working knowledge of oils and fats in the food industry.

In the interest of consumer health, many fats and oils processors continuously strive to develop healthier preparation procedures. Following in the footsteps of its previous bestselling editions, Fats and Oils: Formulating and Processing for Applications, Third Edition delineates up-to-date processing procedures and formulation techniques as well as the effects of new ingredients, processing, and formulation on globally relevant applications. In addition to examining all product categories, such as types of shortening, margarine, and liquid oil, this new edition includes an array of new features, including: Expanded coverage of essential fatty acids and their health implications Extended chapter on problem solving and discussion of trans fats Added information on sterols and stanols usage, processing aids and additives, and specialty fats and oils Improved quality management chapter Doused with practical advice, this ready reference combines 45 years of indispensable literature with the personal experiences of the expert author. It is an essential knowledge base for determining the best way to make processing and formulation techniques healthier and more cost-effective.

Fats and Oils Handbook (Nahrungsfette und Öle)

Properties, Processing and Applications

Science and Technology of Enrobed and Filled Chocolate, Confectionery and Bakery Products

The Complete Guide to Fats, Oils, Cholesterol, and Human Health

Specialty Oils and Fats in Food and Nutrition

Structured and Modified Lipids

The advances in lipid biochemistry over the past 25 to 30 years have been dramatic and exciting. The elucidation of the pathways of fatty acid biosynthesis and oxidation, the delineation of the biogenesis of cholesterol from small-molecular weight precursors, the structure proof of simple and complex lipids from plants, animals, and microorganisms, are excellent examples of the spectacular advances made during the golden era of lipid biochemistry. The multifaceted discoveries in these diverse areas of study could be attributed to development of highly sophisticated column chromatographic techniques for separation and purification of simple and complex lipids. The advent of thin-layer chromatography as well as gas liquid chromatography provided an explosive impetus to research developments in this field. Concomitant advances in mass spectrometry allowed an interface with gas-liquid chromatography which spawned even greater insight into the structure of lipids. These eventful days of lipid chemistry nearly 25 years ago led to a relatively quiescent period wherein scientists applied these newly available techniques to investigation of the behavior of isolated (lipid) enzyme systems and to unraveling the intricacies of the metabolic behavior of lipids in the intact cell or whole organisms. Then, in the early 1960s, a decided change in research emphasis developed with the advent of a simple, reproducible procedure for the isolation of cell membranes.

“An in-depth, well-researched, and thoughtful exploration of the ‘fat boom’ in America.” —TheBoston Globe Low carb, high protein, raw foods . . . despite our seemingly endless obsession with fad diets, the startling truth is that six out of ten Americans are overweight or obese. In Fat Land, award-winning nutrition and health journalist Greg Critser examines the facts and societal factors behind the sensational headlines, taking on everything from supersize to Super Mario, high-fructose corn syrup to the high costs of physical education. With a sharp eye and even sharper tongue, Critser examines why pediatricians are now treating conditions rarely seen in children before; why type 2 diabetes is on the rise; the personal struggles of those with weight problems—especially among the poor—and how agribusiness has altered our waistlines. Praised by the New York Times as “absorbing” and by Newsday as “riveting,” this disarmingly funny, yet truly alarming, exposé stands as an important examination of one of the most pressing medical and social issues in the United States. “One scary book and a good companion to Eric Schlosser’s Fast Food Nation.” —Seattle Post-Intelligencer

Drawing from a lifetime of cooking, Hilah Johnson (host of the popular internet cooking series, Hilah Cooking) has produced a beginners cookbook for today's young (and young-at-heart) adults. Featuring a casual straightforward style and a focus on fresh, simple recipes "Learn to Cook" will appeal to anyone who loves to eat. Inside you'll find chapters on menu planning, knife skills, shopping, kitchen equipment (including the only three tools you "really" need), and more. Plus, a comprehensive spice chart and over 150 recipes from breakfast to dinner to the snacks in between.

Epidemiological studies have continued to increase awareness of how trans fats impact human nutrition and health. Because of the adverse effects, trans fats labeling regulations were introduced in 2006. Since then, the fats and oils industry and food product manufacturers have researched and implemented a number of novel, practical, and cost-effective solutions for replacing trans fats with alternate products. This book provides a comprehensive understanding of the trans fats chemistry, labeling regulations, and trans fat replacement technologies. It also deals with world-wide trends and scenarios in terms of regulations and trans fat replacement solutions. Includes details on how trans fats became a part of our food chain, why they remain a health issue, and what replacement solutions exist Offers in-depth analysis of the structure, properties, and functionality of fats and oils Describes trans fats regulations and scenarios in different geographies around the world

Biological Properties, Health Benefits and Commercial Applications

Food Formulation, Consumer Issues and Innovation for Health

Nutraceutical and Specialty Lipids and their Co-Products

Learn to Cook

Fats in Food Technology

Edible Oleogels

This book acknowledges the importance of fats and oils and surveys today's state-of-the-art technology. To pursue food technology without knowing the raw material would mean working in a vacuum. This book describes the raw materials predominantly employed and the spectrum of processes used today. It is the updated and revised English version of Nahrungsfette und Ole, originally printed in German. It contains 283 tables, 647+ figures, and over 850 references. "If you can afford only one book on oils and fats, their composition, processing and use, then this should probably be the one!" Presents details on the composition, chemistry, and processes of the major fats and oils used today Includes hundreds of illustrations and tables, making the concepts easier to read and grasp Acknowledges the importance of fats and oils offers details on relevant technologies

The importance of fats for humans, animals and plants lies in their high content of energy. In addition, fats allow humans and animals to consume fat-soluble vitamins and provide them with essential fatty acids (FAs), which are indispensable because their bodies are unable to synthesise themselves. Vegetable oils are used for many food and industrial purposes. Although a wide variety of sources of vegetable oils, global consumption is dominated by palm, soybean, rapeseed and sunflower oils. In recent years there has been development of underexploited promising plant species as a source of dietary or specialty oils. Many of them contain significant quantities of oils and/or a high proportion of nutritionally, medicinally or industrially desirable FAs. This book discusses the biological properties, health benefits and commercial applications on seed oils.

Enrobed and filled confectionery and bakery products, such as praline-style chocolates, confectionery bars and chocolate-coated biscuits and ice-creams, are popular with consumers. The coating and filling can negatively affect product quality and shelf-life, but with the correct product design and manufacturing technology, the characteristics of the end-product can be much improved. This book provides a comprehensive overview of quality issues affecting enrobed and filled products and strategies to enhance product quality. Part one reviews the formulation of coatings and fillings, with chapters on key topics such as chocolate manufacture, confectionery fats, compound coatings and fat and sugar-based fillings. Product design issues, such as oil, moisture and ethanol migration and chocolate and filling rheology are the focus of Part two. Shelf-life prediction and testing are also discussed. Part three then covers the latest ingredient preparation and manufacturing technology for optimum product quality. Chapters examine tempering, enrobing, chocolate panning, production of chocolate shells and deposition technology. With its experienced team of authors, Science and technology of enrobed and filled chocolate, confectionery and bakery products is an essential purchase for professionals in the chocolate, confectionery and bakery industries. Provides a comprehensive review of quality issues affecting enrobed and filled products Reviews the formulation of coatings and fillings, addressing confectionery fats, compound coatings and sugar based fillings Focuses on product design issues such as oil, moisture and chocolate filling rheology

In the interest of consumer health, many fats and oils processors continuously strive to develop healthier preparation procedures. Following in the footsteps of its previous bestselling editions, Fats and Oils: Formulating and Processing for Applications, Third Edition delineates up-to-date processing procedures and formulation techniques as well a

Healthful Lipids

An Expanding Market for Fats and Oils

High Oleic Oils

Extraction of fats and oils, Extraction of Olive Oil, Extraction of Palm Oil, Fat and oil processing, Fats and oils Based Profitable Projects, Fats and oils Based Small Scale Industries Projects, Fats and oils food production, Fats and Oils Handbook, Fats and Oils Industry Overview, Fats and oils making machine factory, Fats and oils Making Small Business Manufacturing, Fats and oils Processing Industry in India

The Merits of Palm and Palm Kernel Oils in Specialty Fats

General Applications

Oils and fats are almost ubiquitous in food processing, whether naturally occurring in foods or added as ingredients that bring functional benefits. Whilst levels of fat intake must be controlled in order to avoid obesity and other health problems, it remains the fact that fats (along with proteins and carbohydrates) are one of the three macronutrients and therefore an essential part of a healthy diet. The ability to process oils and fats to make them acceptable as part of our food supplies is a key component in our overall knowledge of them. Without this ability, the food that we consume would be totally different, and much of the flexibility available to us as a result of the application of processing techniques would be lost. Obviously we need to know how to process fatty oils, but we also need to know how best to use them once they have been processed. This second edition of Edible Oil Processing presents a valuable overview of the technology and applications behind the subject. It covers the latest technologies which address new environmental and nutritional requirements as well as the current state of world edible oil markets. This book is intended for food scientists and technologists who use oils and fats in food formulations, as well as chemists and technologists working in edible oils and fats processing.

Quality assessment and the need for authentication are important features of the food and personal care products industries. This volume provides an overview of the methods relevant to analysis and authentication of oils and fats. All the major oils and fats are included. Chapter authors are drawn from the academic and industrial sectors. The volume is directed at chemists and technologists working in the food industry, the pharmaceutical industry and in oils and fats processing. It will also be of interest to analytical chemists and quality assurance personnel.

This text addresses critical topics in the expanding market and production for lipids. It combines novel and traditional methods from technological and biological perspectives to achieve the most effective pathways for production of modified lipids. The book is organized into three sections exploring development, new production methods and successful products and uses.

In Fats that Heal Fats that Kill, expert Udo Erasmus takes an in-depth look at the oil industry. Read about the politics of health and the way our bodies assimilate oil. Learn about modern healthful oils like flax, evening primrose and hemp.

How Americans Became the Fattest People in the World

Developments in Oils and Fats

Oils and Fats Authentication

Theory and Practice

Processing, Health Implications, Economic and Environmental Impact

Speciality Fats Versus Cocoa Butter

The new seventh edition of the industry bible of oils and fats processing, extensively revised, expanded, and updated. Bailey's Industrial Oil and Fat Products is the definitive reference source on the food chemistry and processing technology of edible oils and oil-derived nonedible byproducts. Spanning seven themed volumes, this comprehensive work features contributions fro

internationally recognized experts in their respective fields. The new seventh edition has been exhaustively updated and expanded to reflect the latest technical developments and industry trends. Each volume covers a specific area, including edible oil and fat products and applications, processing technologies, chemistry, properties, and safety. This edition includes extensive ne

in every chapter, featuring a brand new eighteen-chapter volume focusing on lipids and their relationship to human health and disease. New topics include polar lipids, analysis of lipid triacylglycerols, toxicity of lipid oxidation products, improving oils and oilseeds through crop genetics, marine oils as biodiesel, camelina and other high alpha-linolenic acid oils, medium-chain oils,

fish feed formulation, new zero trans formulations, lipids in neurodegenerative diseases, and many more. The industry-standard reference for over seven decades, this authoritative work: Provides the most comprehensive coverage of the field available Represents a 50% expansion over the previous edition, featuring more than 100 chapters Features 30 new chapters and exhau

throughout Includes thorough coverage of industrial and specialty oils and oil products Available as a complete seven-volume set, individual print volumes, and a fully searchable online product, Bailey's Industrial Oil and Fat Products, Seventh Edition remains the primary source of information on oils and fats for industry, government, and academia.

The three major macronutrients are proteins, carbohydrates, andlipids (oils and fats). This book is devoted to lipids, which arean important part of life for all of us. What are these materialsin molecular terms? Where do they come from? What happens to thembetween the harvesting of crops and the appearance of the oils andfats in different products in the supermarket? How do

these molecules and can we act on nature to modify thematerials to increase their beneficial properties? How importantare the minor products present in the fats that we consume? Sinceoils and fats vary, how can we analyse them? What are theirphysical, chemical and nutritional properties? How do the fats thatwe consume affect our health and well-being in both quantitativea

terms? What are their major food and non-fooduses? This book provides a broad source of reference on oils and fatschemistry for graduates entering the food and oleochemicalindustries, postgraduate researchers and nutritionists. It offers apoint of entry to the detailed literature.

High Oleic Oils: Development, Properties and Uses is the first complete reference to address practical applications for this new and dynamic category of fats and oils that are essentially replacing partially hydrogenated oils in various food and nonfood uses. As a category, high oleic oils are highly stable, but like other fats and oils, there are differences in the composition and app

various types of high oleic oils. Their compositions allow for the production of a range of frying oils, increased shelf-life foods, functional shortenings and hard fats, and even industrial products not easily produced with nonhigh oleic oils. Information and know-how on these applications and advantages has been in high demand and short supply until now. Based on extensive con

experience, seminars and presentations, Editor Frank Flider has identified common customer questions, needs and concerns about high oleic oils, and addresses them in this single comprehensive volume outlining development, composition, and utilization of high oleic oils. Through the individual expertise of a highly qualified team of contributing authors, this book outlines the c

composition, and utilization of these oils, making it of value to a wide range of readers, including the research and development industry and academic researchers. Details the development and technology behind today’s high oleic crops and oils as well as the history and background of many naturally occurring oleic oils Describes high oleic oils’ nutritional and compositional ad

PHOs and lower oleic oils Presents unbiased, noncommercial, science-based, and objective insights, deliberately balanced to represent high oleic oil varieties equally Addresses transgenic insights as well as new state-of-the-art and future development technologies

Until recently fats and oils have been in surplus, and considered a relatively low value byproduct. Only recently have energy uses of fats and oils begun to be economically viable. Food value of fats and oils is still far above the energy value of fats and oils. Industrial and technical value of fats and oils is still above the energy value of fats and oils. Animal feeds value of fats and o

below the energy value of fats and oils. With development of new technology oils and fats industry has undergone a number of changes and challenges that have prompted the development of new technologies, and processing techniques. Oils and fats constitute one of the major classes of food products. In fact oils and fats are almost omnipresent in food processing – whether

in foods or added as ingredients for functional benefits and, despite the impression given by several sources to the contrary; they remain an essential part of the human diet. However, it is increasingly apparent that both the quantity and the quality of the fat consumed are vital to achieve a balanced diet. They are essential constituents of all forms of plant and animal life. Oils and

naturally in many of our foods, such as dairy products, meats, poultry, and vegetable oil seeds. India is the biggest supplier of greater variety of vegetable oil and still the resources are abundant. The applications of oils are also seen in paints, varnishes and related products. Since the use of oils and fats in our daily life is very noticeable the market demands of these products ar

efforts has been made to include all the valuable information about the oils, fats and its derivatives which integrates all aspects of food oils and fats from chemistry to food processing to nutrition. The book includes sources, utilization and classification of oil and fats followed by the next chapter that contain details in physical properties of fat and fatty acids. Exquisite reactions of f

acids are also included in the later chapter. It also focuses majorly in fractionation of fat and fatty acids, solidification, homogenization and emulsification, extraction of fats and oils from the various sources, detail application in paints, varnishes, and related products is also included. It also provides accessible, concentrated information on the composition, properties, and uses of

as the major product followed by modifications of these oils that are commercially available by means of refining, bleaching and deodorization unit with detailed manufacturing process, flow diagram and other related information of important oils, fats and their derivatives. Special content on machinery equipment photographs along with supplier details has also been included. We

book turns out to be considerate to all the entrepreneurs, technocrats, food technologists and others linked with this industry. TAGS Best small and cottage scale industries, Business consultancy, Business consultant, Business guidance for oils and fats production, Business guidance to clients, Business Plan for a Startup Business, Business start-up, Chemistry and Technology

Chemistry of Oils and Fats, Classification of oils and fats, Complete Fats and Oils Book, Extraction of fats and oils, Extraction of Olive Oil, Extraction of Palm Oil, Fat and oil processing, Fats and oils Based Profitable Projects, Fats and oils Based Small Scale Industries Projects, Fats and oils food production, Fats and Oils Handbook, Fats and Oils Industry Overview, Fats and

machine factory, Fats and oils Making Small Business Manufacturing, Fats and oils Processing Industry in India, Fats and oils Processing Projects, Fats and oils production Business, Fatty acid derivatives and their use, Fatty acid production, Fatty Acids and their Derivatives, Fractionation of fats and fatty acids, Great Opportunity for Startup, How cooking oil is made, How to Ma

Oils, Fats and Its Derivatives, How to Start a Fats and oils Production Business, How to Start a Fats and oils?, How to start a successful Fats and oils business, How to start fats and oils Processing Industry in India, Manufacture of oils and fats, Manufacture of Soluble Cutting Oil, Manufacturing Specialty Fats, Modern small and cottage scale industries, Most Profitable fats and

Business Ideas, New small scale ideas in Fats and oils processing industry, Oil & Fat Production in the India, Oil and Fats Derivatives, Paints and varnishes manufacturing, Paints, varnishes, and related products, Preparation of Project Profiles, Process technology books, Process to produce fatty acid, Processing of fats and oils, Production of fatty acid, Profitable small and cott

industries, Profitable Small Scale Fats and oils manufacturing, Project for startups, Project identification and selection, Properties of fats and fatty acids, Reactions of fats and fatty acids, Rice bran oil manufacturing process, Setting up and opening your Fats and oils Business, Small scale Commercial Fats and oils making, Small Scale Fats and oils Processing Projects, Small sc

production line, Small Start-up Business Project, Start Up India, Stand Up India, Starting a Fats and oils Processing Business, Startup, Start-up Business Plan for Fats and oils processing, Startup ideas, Startup Project, Startup Project for Fats and oils processing, Startup project plan, Tall Oil Formulation in Alkyd Resins, Tall oil in liquid soaps, Tall oil in rubber, Tall oil in the plas

Tall oil products in surface coatings, Utilization of nonconventional oils, Utilization of oils and fats

Sources, Processing, and Applications

Fatty Acids and Glycerides

Proceedings of the World Conference on Lauric Oils

Specialty Fats Based on Palm Oil and Palm Kernel Oil

Physico-Chemical Aspects of Food Processing

Specialty Oils and Oil Products

First published in 1945, Bailey's has become the standard reference on the food chemistry and processing technology related to edible oils and the nonedible byproducts derived from oils. This Sixth Edition features new coverage of edible fats and oils and is enhanced by a second volume on oils and oilseeds. This Sixth Edition consists of six volumes: five volumes on edible oils and fats, with still one volume (as in the fifth edition) devoted to nonedible products from oils and fats. Some brand new topics in the sixth edition include: fungal and algal oils, conjugated linoleic acid, coco butter, phytosterols, and plant biotechnology as related to oil production. Now with 75 accessible chapters, each volume contains a self-contained index for that particular volume.

While certain saturated and trans fats continue to face scrutiny as health hazards, new evidence indicates that, in addition to supplying foods with flavor and texture, fats also provide us with dietary components that are absolutely critical to our well-being. The importance of essential fatty acids and fat-soluble vitamins and other minor components delivered by lipids is well known, as are the benefits and essentiality of long-chain omega-3 and omega-6 fatty acids. And now, with new research connecting lipids to heart health, mental health, and brain and retina development, the market has responded by providing health-conscious consumers with lipid foods, including spreads, breads, cereals, juices, and dairy products. Nutraceutical and Specialty Lipids and their Co-Products presents a thorough assessment of the current state of the chemistry, nutrition, and health aspects of specialty fats and oils. Fereidoon Shahidi, editor-in-chief of the Journal of Food Lipids and a past chair and co-founder of the Nutraceuticals and Functional Foods Division of the Institute of Food Technologists, brings together top researchers to address the potential application and delivery of lipids in functional foods. Sharing much of their own research, they offer an unparalleled view of the field that covers basic lipid chemistry, as well as the most progressive findings concerning the nutritional value of beneficial lipids. They include research on cereal grain, marine, fruit seed, and tree nut oils, as well as oilseed medicinals, fat replacers, and many other sources of lipids. They also consider stability issues and the latest tools being used for lipids purification. Covering the full range of these essential diet components, this cutting-edge volume serves to meet the needs of scientists and students in research and product development, as well as health and nutrition specialists.

Food processing is now the biggest industry in the UK and in many other countries. It is also rapidly changing from what was essentially a craft industry, batch processing relatively small amounts of product, to a very highly automated one with continuously operating high speed production lines. In addition, consumers have developed a greater expectation for consistently high standard products and coupled this with demands for such things as a more natural flavour, lower fat etc. The need for an increased knowledge of the scientific principles behind food processing has never been greater. Within the industry itself, increased automation, company diversification and amalgamations etc. have meant that those working in it have often to change their field of operation. Whereas twenty years ago, someone starting work in one branch of the food industry could expect, if he or she so desired, to work there all their working lives, this is now seldom the case. This means that a basic knowledge of the principles behind food processing is necessary both for the student at university or college, and for those already in the industry. It is hoped, therefore, that this book will appeal to both, and prove to be a useful reference over a wide range of food processing.

Since the original publication of this book in 1992, the bleaching process has continued to attract the attention of researchers and the edible-oil industry. In this 2nd edition, the reader is directed to more modern techniques of analysis such as flame-atomic adsorption, graphite furnace atomic adsorption, and atomic emission spectrometry involving direct current plasma (DCP) and inductively coupled plasma (ICP). It also discusses the Freundlich Equation and reports on high-temperature water extraction, high- temperature oxidative aqueous regeneration, and extraction with supercritical CO2. Finally, various degumming methods improved over the past several decades are discussed Second edition features the progress in the bleaching and purifying of fats and oils since the mid-1990s Includes extensive details on the adsorptive purification of an oil prior to subsequent steps in the process, including refining and deodorization Offers practical considerations for choosing membranes, filtration equipment, and other key economic consideratons

Fats that Heal, Fats that Kill

Fatty Acids

Fats and Oils

Fat Land

Formulating and Processing for Applications, Second Edition

Processing and Nutrition of Fats and Oils

Functional Dietary Lipids: Food Formulation, Consumer Issues and Innovation for Health discusses this important component of the human diet and the ways it plays an essential functional role in many foods. The book covers the functionality and nutritional benefits of dietary fat in food in terms of formulation, manufacturing, and innovation for health. After an introduction by the editor reviewing the role of fats in the human diet, the book dis

edible fats, manufacturing issues, including the replacement of trans-fatty acids in food, fat reformulation for calorie reduction, thermal stability of fats, and the flavor and functional texture and melting characteristics of fats in food. Subsequent chapters address the effect of dietary lipid intake on various health issues and the potential health benefits of bioactive compounds in dietary lipids, with final sections discussing issues that affect the c

such as regulation, marketing, and health claims. Comprehensively examines the functionality and nutritional benefits of dietary fat in food Discusses the chemistry of edible fats, manufacturing issues, including the replacement of trans fatty acids in food, fat reformulation for calorie reduction, thermal stability of fats, and more Considers manufacturing issues of dietary fat in foods Addresses issues affecting the consumer relationship with fa

marketing, and health claims

Processing and Nutrition of Fats and Oils reviews current and new practices of fats and oils production. The book examines the different aspects of fats and oils processing, how the nutritional properties are affected, and how fats interact with other components and nutrients in food products. Coverage includes current trends in the consumption of edible fats and oils; properties of fats, oils and bioactive lipids; techniques to process and mod

aspects of lipids; and regulatory aspects, labeling and certifications of fats and oils in foods.

Edible Oleogels, Structure and Health Implications, Second Edition presents a novel strategy on how to eliminate trans fats from our diets. Topics covered include how to avoid excessive amounts of saturated fat by structuring oil to make it behave like crystalline fat and how to develop trans fat free, low saturate, functional shortenings for the food industry. The major approach to form these materials is covered, helping manufacturers incorp

(polymers, amphiphiles, waxes) into oil components. As such, this an ideal resource for those in product development and anyone interested in understanding the role of trans and saturated fats in health and nutrition. In an effort to provide alternatives to trans and saturated fats, scientists have been busy modifying the physical properties of oils to resemble those of fats. Many food products requiring a specific texture and rheology can be m

materials without causing significant changes to final product quality. Hence, this book provides a valuable resource on new advancements. Presents emerging science on beta gels using natural triglycerides, ethylcellulose oleogels, and oleotropic liquid crystals Suggests a novel strategy to eliminate trans fats from our diets and avoid excessive amounts of saturated fat by structuring oil to make it behave like crystalline fat Reviews the struc

mesoscale and nanoscale structures, including nanofibers, mesophases, and functionalized crystals and crystalline particles Identifies evidence on how to develop trans fat free, low saturate, functional shortenings for the food industry

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food lipids (vegetableand animal fats) are outlined, along with their physicalcharacteristics. The book also focuses on the current main concernsof the food industry regarding oils and fats use, including: thenutritional properties of fats and oils and their variouscomponents; links between chemical structure and physiologicalproperties; and the role of lipids in some of the more importantdisease conditions such as obesity, diabetes, coronary h

final chapter is devoted to a descriptionof the most common food uses of oils and fats. The book will be of interest to food industry professionals,students or others who require a working knowledge of oils and fatsin the food industry.

Sources, Composition, Properties and Uses

Seed Oil

Bailey's Industrial Oil and Fat Products, 7 Volume Set

Bleaching and Purifying Fats and Oils

Structure and Health Implications

Fats are present in some form in the vast majority of processed foods we consume, as well as in many ‘natural’ products. Changes in consumer behaviour, centered around an increased emphasis on healthy food consumption, mean that it is more important than ever for food scientists to understand the properties, roles and behaviours that fats play in food and in diets. Fats in Food Technology, Second Edition is an in-depth examination of the roles and behaviours of fats in food technology and the benefits that they impart to consumers. It considers both fats that are naturally present in foods (such as milk fat in cheese) and fats that have been added to improve physical, chemical and organoleptic properties (like cocoa butter in chocolate). Newly revised and updated, the book contains useful information on the market issues that have driven change and the disciplines that have helped to regulate the trade and use of fats and oils in food technology. Drawing on the recent literature as well as the personal R&D experiences of the authors, the book highlights those areas where potential efficiencies in processing and economy in the cost of raw materials can be made. Issues concerning health, diet and lifestyle are covered in dedicated chapters. This book will be useful to anyone in industry and research establishments who has an interest in the technology of fat-containing food products, including scientists in the dairy, spreads, bakery, confectionery and wider food industries, as well those involved in the production of edible oils.

Specialty Oils and Fats in Food and Nutrition: Properties, Processing and Applications examines the main specialty oils and fats currently in use in food processing, as well as those with significant potential. Specialty oils and fats have an increasing number of applications in the food industry, due to growing consumer interest in “clean label functional foods and the emerging markets in “free-from and specialist foods. Part One of this book covers the properties and processing of specialty oils and fats, with a focus on the chemistry, extraction, and quality of different fats and oils, including chapters on shea butter, tropical exotic oils, and structured triglycerides. Part Two looks at the applications of specialty oils and fats in different food and nutraceutical products, such as confectionary, ice cream, and margarine. Specialty Oils and Fats in Food and Nutrition is a key text for R&D managers and product development personnel working in the dairy, baking, and dairy analogue sectors, or any sector using fats and oils. It is a particularly useful reference point for companies reformulating their products or developing new products to alter fat content, as well as academics with a research interest in the area, such as lipid scientists or food scientists. Authored by an industry expert with 35 years of experience working for Unilever and Loders Croklaan Broad coverage encompasses tropical exotic oils, tree nut oils, algal oils, GM vegetable oils, and more Addresses growing application areas including nutraceuticals, infant formula, and ice cream and confectionery

Numerous nutritional findings and extensive evidence on the health benefits of diet and exercise have emerged since the publication of the successful first edition. Recent concerns about trans isomers acting like saturated fatty acids have encouraged formulation changes that require fats and oils processors to revise their preparation techniques. U

These proceedings contain the text of plenary sessions and papers from poster sessions at the World Conference held in February 1994. In addition to sources, processing, and applications, the papers also address aspects of the marketing and economics of lauric oils. Among the specific topics: quality aspects of shipping and handling lauric oils and oleochemicals; the development and commercialization of high-lauric rapeseed oil; catalytic hydrogenation of lauric oils and fatty acids; and health effects of lauric oils compared to unsaturated vegetable oils. No index. Annotation copyright by Book News, Inc., Portland, OR

Specialty Fats and Oils

The Chemistry of Oils and Fats

Bailey's Industrial Oil and Fat Products

Formulating and Processing for Applications, Third Edition

Oils and Fats in the Food Industry

Trans Fats Replacement Solutions