Advances In Lipid Methodology Oily Press Lipid Library Series

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RHETT ALIJAH

Analysis of Lipid Oxidation Elsevier
Lipid Glossary 2 is a handy reference for a wide range of lipid scientists and technologists, as well as for those involved in the trading of these materials.The major part of the book is the glossary which

contains brief and simple definitions, such as the names of fatty acids and lipids, the major oils and fats, terms associated with their analysis, refining, and modification, and the major journals and societies concerned with lipid chemistry. Entries are arranged alphabetically for ease of reference and there are cross-refernces between sections. Many entries have full references to further sources of information.The earlier book A Lipid Glossary (first published by The Oily Press in 1992) has been completely rewritten for this new version. The entries have been extended and increased in number to over 1200. The number of graphics has been raised to over 180. As a consequence, the new book has more than twice as many pages as the old version. Details of the major lipid journals and books on lipids are listed in two appendices.

Lipid Analysis and Lipidomics Royal Society of Chemistry Covers the area of lipidomics from fundamentals and theory to applications Presents a balanced discussion of the fundamentals, theory, experimental methods and applications of lipidomics Covers different characterizations of lipids including Glycerophospholipids; Sphingolipids; Glycerolipids and Glycolipids; and Fatty Acids and Modified Fatty Acids Includes a section on

quantification of Lipids in Lipidomics such as sample preparation; factors affecting accurate quantification; and data processing and interpretation Details applications of Lipidomics Tools including for Health and Disease; Plant Lipidomics; and Lipidomics on Cellular Membranes

Lipid Glossary 2 John Wiley & Sons

New Techniques and Applications in Lipid Analysis provides an informative and comprehensive reference book covering the latest and most important analytical topics in lipid chemistry. Researchers in biomedicine, food industry, food processing, product development, nutrition and dietetics, oil processing, fat substitutes, and lipid technology, as well as students in the fields of food science and nutrition, will greatly benefit from this book.

Mass Spectrometry for Lipidomics Springer Nature

This edited volume is a collection of reviewed and relevant research chapters concerning developments within the field of lipid metabolism. It includes scholarly contributions from experts in the field that cover such topics as roles of lipids in cancer, analytical tools for lipid assessment in biological assays, plant lipid metabolism, the effect of nanoparticles on lipid peroxidation in plants, and fatty acid compositions in fermented fish products. This book

provides a thorough overview of the latest research efforts by international authors on lipid metabolism, and opens new possible research paths for further novel developments.

Developments in Oils and Fats WCB/McGraw-Hill

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.

Advances in Lipid Methodology

Springer Science & Business Media
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.

Advances in Lipid Methodology John Wiley & Sons

Progress in Lipid Research, Volume 18 focuses on the advancements of processes, methodologies, and approaches involved in lipid research. The selection first elaborates on lipid composition of marine and estuarine invertebrates; role of acylcoenzyme A: cholesterol O-acyltransferase in cholesterol metabolism; and synthesis of acyl lipids in plant tissues. Discussions focus on fatty acid synthesis, turnover of complex lipids, arterial wall and atherosclerosis, cholesteryl ester metabolism, and solubilization. The text then examines the effects of ethanol ingestion on lipid metabolism, including fatty acid oxidation and ketogenesis, lipid peroxidation, plasma triacylglycerols and lipoproteins, phospholipid metabolism, and cholesterol and bile acids. The publication takes a look at lipid metabolism in liver and selected tissues and in the whole body of ruminant animals and the effect of caval shunts on lipid

metabolism. Topics include adaptation and regulation of lipid metabolism in the whole animal, lipid metabolism in specific tissues, and the effects of caval shunts on tissue lipids. The text also ponders on lipid metabolism in the neonatal ruminant, as well as transfer of lipids across the placenta, maternal contribution to fetal lipid requirements, and placental lipid metabolism. The selection is a dependable source of data for readers interested in lipid research.

Fatty Acids and Glycerides Academic Press

Diet and Health examines the many complex issues concerning diet and its role in increasing or decreasing the risk of chronic disease. It proposes dietary recommendations for reducing the risk of the major diseases and causes of death today: atherosclerotic cardiovascular diseases (including heart attack and stroke), cancer, high blood pressure, obesity, osteoporosis, diabetes mellitus, liver disease, and dental caries.

Fatty Acids and Glycerides Elsevier

Since the early 1930's the field of lipid research has grown tremendously. In conjunction with the expansion of our knowledge of lipids, many methods for the determination of these constituents have been published at a pace which makes it difficult for the investigator to

keep abreast of developments. This bibliography was compiled in order that references to the many methods might be brought together and made more readily available. No effort has been made to include papers wherein the method of choice is "standard" or only slightly modified, or those referred to in the "New Methods" section of the Journal of Lipid Research. Of the methods published before 1930, only the classical ones have been included. The papers are listed alphabetically by first author. Chemical Abstract numbers are included for the less common journals.

Diet and Health

Springer Science & Business Media

Synthesis is an important chemical activity with new and revised procedures being developed continually. Underlying all modern synthetic work is the desire to develop ever simpler methods which do not damage the environment. Lipid Synthesis and Manufacture offers a balance of topics, drawing on authors best equipped to them. Several chapters are devoted to the synthesis and production of fatty acids and closely related derivatives. Areas more immediately of interest to those working in the food and oleochemical industries focus on vitamin E, other natural antioxidants, sugar esters and ethers, and food surfactants. This is an

essential reference.
Lipid Analysis in Oils and Fats AOCS Press
Lipid oxidation, though researched since the beginning of the 20th century, still gives no complete and satisfactory information on the composition of oxidized lipids. One important factor contributing to these gaps in our knowledge about lipid oxidation relates to the shortages in analytical methodology. Analytical methods suitable for oxidized lipids were often reviewed in the last decade, but mostly from the aspect of determination of individual oxidized lipid classes, such as peroxides, aldehydes, polar lipids, or polymers. In this book, they are treated from the standpoint of types of analytical methods used, including different volumetric methods, UV-visible spectrometric methods, high performance size-exclusion chromatography, nuclear magnetic resonance spectroscopy, electron spin resonance spectroscopy, and differential scanning calorimetry. Analysis of Lipid Oxidation is essential for further developments in analytical methodology and hyphenated techniques, with which more understanding of the reaction kinetics, mechanism, and implications will take place.
Lipidomics Springer Science & Business Media
This is the third volume of an occasional series

of review volumes dealing with aspects of lipid methodology. As with the first two volumes, topics have been selected that have been developing rapidly in recent years and have some importance to lipid analysis. The authors are all leading international experts. Topics covered include: analysis of positional isomers of glycerolipids by non-enzymatic methods, separation of phospholipid classes by high-performance liquid chromatography, and nuclear magnetic resonance spectroscopy and lipid phase behaviour and lipid diffusion, among others.

Advances in Lipid Methodology - One

Elsevier

Advances in Dietary Lipids and Human Health systematically summarizes recent research advances in dietary lipids and human health. The book proposes a strategy for the prevention of NCDs and the management of population and personal health through the rational use of dietary fat. It covers the relationship between total lipids, saturated and unsaturated fatty acids and NCDs, and other uncommon fatty acids, such as conjugated fatty acids, middle and short chain fatty acid, furan fatty acids, n-3 docosapentaenoic acid (DPA), and structured fat. Intended for nutrition researchers, dieticians, clinicians and others in academia who are focused on medicine, preventive medicine, public health

and food science students, this valuable reference provides information that will assist readers in the prevention and treatment of cardiovascular disease, hypertension, metabolic disorders, diabetes, neuropsychiatric diseases, and cancer by specifically managing dietary lipids. Offers an evidence-based, systematic review of dietary fat and fatty acids and health Provides extensive knowledge on the relationship between type and quantity of lipid, fatty acids and NCDs Proposes a strategy for the prevention of NCDs and the management of population and personal health through the rational use of dietary fat

Advances in Lipid Methodology Springer This book focuses on the developments in the field of lipid analysis, providing an up-to-date review of the analytical techniques available to chemists and technologists to identify complex molecules. The requisite theoretical background will be provided for individual techniques, together with their strengths and weaknesses, and a guide to the enormous range of commercial applications. It will be an invaluable reference source to all sectors of the oils and fats industry where accurate labeling of foods, food contamination and adulteration are issues of increasing interest

and concern. Technological Advances in Improved and Alternative Sources of Lipids John Wiley & Sons
New methods for the analysis of edible oils, fats, and cellular lipids have recently been developed, presented at scientific meetings, and published in peer-reviewed journals. These methods apply to biological and food matrices, edible oils and fats, as well as cellular fats of pathogenic bacteria and spores, and will cover many research applications in lipidomics, food analysis, food safety, food security, and counter-terrorism. This text offers the lipid analyst essential analytical tools in the fields of chromatography, mass spectrometry, spectroscopy, magnetic resonance, and chemometrics. It also serves as a reference for recent developments in the rapidly evolving field of lipid methodologies. *Advances in Dietary Lipids and Human Health* Springer
Emulsifiers, also known as surfactants, are often added to processed foods to improve stability, texture, or shelf life. These additives are regulated by national agencies, such as the FDA, or multi-national authorities, such as the EEC or WHO. The amphiphilic molecules function by assisting the dispersion of mutually insoluble phases and stabilizing the resulting colloids, emulsions, and foams. Emulsifiers can interact

with other food components such as carbohydrates, proteins, water, and ions to produce complexes and mesophases. These interactions may enhance or disrupt structures and affect functional properties of finished foods. In dairy processing, small molecule emulsifiers may displace dairy proteins from oil/water and air/water interfaces, which affects stability and properties of the foams and emulsions. In baked products, emulsifiers contribute to secondary functionalities, such as dough strengthening and anti-staling. Synthetic food emulsifiers suffer from the stigma of chemical names on a product's ingredient statement. Modern consumers are seeking products that are "all natural." Fortunately, there are a number of natural ingredients that are surface-active, such as lecithin, milk proteins, and some protein-containing hydrocolloids. Mayonnaise, for example, is stabilized by egg yolk. This book can serve as both a guide for professionals in the food industry to provide an understanding of emulsifier functionality, and a stimulus for further innovation. Students of food science will find this to be a valuable resource.

Advances in Lipid Methodology One and Two Springer Science & Business Media

The first volume in a series focusing on the applied area of lipid

research. Topics discussed include the synthesis of lipids in yeasts, enzymes and lipid modification, and polyunsaturated fatty acids.

Biochemistry and Methodology of Lipids JAI Press

Lipids and Edible Oils: Properties, Processing and Applications covers the most relevant topics of lipids and edible oils, especially their properties, processing and applications. Over the last years, researchers have investigated lipid bioavailability, authentication, stability and oxidation during processing and storage, hence the development of food and non-food applications of lipids and edible oils has attracted great interest. The book explores lipid oxidation in foods, the application of lipids as nano-carriers of food bioactive compounds, and their bioavailability, metabolism and nutritional genomics. Regarding edible oils, the book thoroughly explores their triacylglycerols content, biodiesel and energy production from vegetable oils, refining and lifecycle assessment. Written by a team of interdisciplinary experts that research lipids and edible oils, the book is intended for food scientists, technologists, engineers and chemists working in the whole food science field. Thoroughly explores the technological

properties of lipids and edible oils Includes food processing by-products and microalgae as a source of lipids and edible oils Reviews novelties in edible oil products and processing, including refining techniques, biorefinery and value creation processing waste

Advances in Applied Lipid Research Elsevier

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

Advances in Lipid Methodology - Five

Elsevier

The Advanced Dairy Chemistry series was first published in four volumes in the 1980s (under the title Developments in Dairy Chemistry) and revised in three volumes in the 1990s. The series is the leading reference on dairy chemistry, providing in-depth coverage of milk proteins, lipids, lactose, water and minor constituents. Advanced Dairy Chemistry Volume 2: Lipids, Third Edition, is unique in the literature on milk lipids, a broad field that encompasses a diverse range of topics, including synthesis of fatty acids and acylglycerols, compounds associated with the milk fat fraction, analytical

aspects, behavior of lipids during processing and their effect on product characteristics, product defects arising from lipolysis and oxidation of lipids, as well as nutritional significance of milk lipids. Most topics included in the second edition are retained in the current edition, which has been updated and considerably expanded. New chapters cover the following subjects: Biosynthesis and nutritional significance of conjugated linoleic acid, which has assumed major significance during the past decade; Formation and biological significance of oxysterols; The milk fat globule membrane as a source of nutritionally and technologically significant products; Physical, chemical and enzymatic modification of milk fat; Significance of fat in dairy products: creams, cheese, ice cream, milk powders and infant formulae; Analytical methods: chromatographic, spectroscopic, ultrasound and physical methods. This authoritative work summarizes current knowledge on milk lipids and suggests areas for further work. It will be very valuable to dairy scientists, chemists and others working in dairy research or in the dairy industry.

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