Snack Food Technology
Dictionary of Food Ingredients
Biscuit Manufacture
Bakery; Technology and Engineering
Handbook of
Bakery Technology and Engineering
Technology and Engineering
Prepared by a Group of
Experts and Edited by Samuel A. Matz
Bakery Products
Bakery Technology and Engineering
Handbook of
Breadmaking Technology
Food Texture and Viscosity: Concept and Measurement
Food Processing Technology
Cereal Science and Technology
Chemistry and Technology of Cereals as Food and Feed
Conventional and Advanced Food Processing Technologies
Functional Properties of Food Components
Practical Food Microbiology and Technology
Bakery Technology
Cereal Grains
Rheological Methods in Food Processing
Time-Frequency Analysis
Advances in Baking Technology
Cookie and Cracker Technology
Functional Additives for Bakery Foods
Food Process Design
Kirk-Ohmmer Food and Feed Technology
2 Volume Set
Food Machinery
Bakery Technology and Engineering
Breadmaking
Practical Baking Technology
Of Cereals
The Literature of Agricultural Engineering
Yeast technology
Dictionary of Food Ingredients
The Modern Novel Foods and Food Production Encyclopedia
Trans Fats Replacement Solutions
A Companion to Modernist Literature and Culture
Food Plant Economics
Food Processing Technology
A Companion to Mill The
Dictionary of Food Ingredients is a unique, easy-to-use source of information on over 1,000 food ingredients. Like the previous editions, the new and updated Third Edition provides clear and concise information on currently used additives, including natural ingredients, FDA-approved artificial ingredients, and compounds used in food processing. The dictionary entries, organized in alphabetical order, include information on ingredient functions, chemical properties, and uses in food products. The updated and revised Third Edition contains approximately 1,000 new entries, and includes an updated and expanded bibliography. It also lists food ingredients according to U.S. federal regulatory status. Users of the two previous editions have commented favorably on the dictionary's straightforward and clearly-written definitions, and we have endeavored to maintain that standard in this new edition. We trust it will continue to be a valuable reference for the food scientist, food processor, food product developer, nutritionist, extension specialist, and student. R. S. Igoe Y. H. Hui vii Ingredients A Acaia See Arabic. Acesulfame-K A non-nutritive sweetener, also termed acesulfame potassium. A white, crystalline product that is 200 times sweeter than sucrose. It is not metabolized in the body. It is relatively stable as a powder and in liquids and solids which may be heated. Acesulfame-K is approved for use in dry food products. Acesulfame Potassium See Acesulfame-K. The Dictionary of Food Ingredients is a unique, easy-to-use source of information on over 1,000 food ingredients. Like the previous editions, the new and updated Third Edition provides clear and concise information on currently used additives, including natural ingredients, FDA-approved artificial ingredients, and compounds used in food processing. 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It is relatively stable as a powder and in liquids and solids which may be heated. Acesulfame-K is approved for use in dry food products. Acesulfame Potassium See Acesulfame-K. Utilizes simplified computer strategies to analyze, develop, and optimize industrial food processes. Discusses the integration and economic evaluation of the entire processing plant including effective use of water, energy, and raw materials; process profitability; and wastewater reduction. Offers detailed numerical examples for major food processes including heating, cooling, evaporation, dehydration, and thermal processing. Widely regarded as a standard work in its field, this book introduces the range of processing techniques that are used in food manufacturing. It explains the principles of each process, the processing equipment used, operating conditions and the effects of processing on micro-organisms that contaminate foods, the biochemical properties of foods and their sensory and nutritional qualities. The book begins with an overview of important basic concepts. It describes unit operations that take place at ambient temperature or involve minimum heating of foods. Subsequent chapters examine operations that heat foods to preserve them or alter their eating quality, and explore operations that remove heat from foods to extend their shelf life with minimal changes in nutritional quality or sensory characteristics. Finally, the book reviews post-processing operations, including packaging and distribution logistics. The third edition has been substantially rewritten, updated and extended to include the many developments in food technology that have taken place since the second edition was published in 2000. Nearly all unit operations have undergone significant developments, and these are reflected in the large amount of additional material in each chapter. In particular, advances in microprocessor control of equipment, ‘minimal’ processing technologies, genetic modification of foods, functional foods, developments in ‘active’ or ‘intelligent’ packaging, and storage and distribution logistics are described. Developments in technologies that relate to cost savings, environmental improvement or enhanced product quality are highlighted. Additionally, sections in each chapter on the impact of processing on foodborne micro-organisms are included for the first time. Food Science and Technology: A Series of Monographs: Food Texture and Viscosity: Concept and Measurement focuses on the texture and viscosity of food and how these properties are measured. The publication first elaborates on texture, viscosity, and food, body-texture interactions, and principles of objective texture measurement. Topics include area and volume measuring instruments, chemical analysis, multiple variable instruments, soothing effect of mastication, reasons for masticating food, rheology and texture, and the rate of compression between the teeth. The book then examines the practice of objective texture measurement and viscosity and consistency, including the general equation for viscosity, methods for measuring viscosity, factors affecting viscosity, tensile testers, distance measuring measurements, and shear testing. The manuscript takes a look at the selection of a suitable test procedure and sensory methods of texture and viscosity measurement. Discussions focus on nonoral methods of sensory measurement; correlations between subjective and objective measurements; variations on the texture profile technique; and importance of sensory evaluation. The publication is a vital source of information for food experts and researchers interested in food texture and viscosity. This is a completely revised and updated edition of the comprehensive and widely used survey of cereal technology. The first section describes the botany, classification, structure, composition, nutritional importance and uses of wheat, corn, oats, rye, sorghum, rice and barley, as well as six other grains. The book also describes the latest methods of producing, cleaning, and storing these grains. The second section of the book offers current information on the technological and engineering principles of seed milling, flour milling, baking, malting, brewing, manufacturing breakfast cereals, snack food production, wet milling (starch and oil production from grains), rice processing, and other upgrading procedures applied to cereal grains. This section also explains the value and utilization of by-products and examines many rarely discussed processing methods. In addition, the book provides reviews of current knowledge on the dietary importance of cereal proteins, lipids, fibre, vitamins, minerals, and anti-nutrient factors, as well as the effects of processing methods on these materials. The first edition of Breadmaking: Improving
quality quickly established itself as an essential purchase for baking professionals and researchers in this area. With comprehensively updated and revised coverage, including six new chapters, the second edition helps readers to understand the latest developments in bread making science and practice. The book opens with two introductory chapters providing an overview of the breadmaking process. Part one focuses on the impacts of wheat and flour quality on bread, covering topics such as wheat chemistry, wheat starch structure, grain quality assessment, milling and wheat breeding. Part two covers dough development and bread ingredients, with chapters on dough aeration and rheology, the use of redox agents and enzymes in breadmaking and water control, among other topics. In part three, the focus shifts to bread sensory quality, shelf life and safety. Topics covered include bread aroma, staling and contamination. Finally, part four looks at particular bread products such as high fibre breads, those made from partially baked and frozen dough and those made from non-wheat flours. With its distinguished editor and international team of contributors, the second edition of Baking: Improving quality is a standard reference for researchers and professionals in the bread industry and all those involved in academic research on baking science and practice. With comprehensively updated and revised coverage, this second edition outlines the latest developments in breadmaking science and practice. Covers topics such as wheat chemistry, wheat starch structure, grain quality assessment, milling and wheat breeding Discusses dough development and bread ingredients, with chapters on dough aeration and rheology. This book introduces readers to the history of the novel in the twentieth century and demonstrates its ongoing relevance as a literary form. A jargon-free introduction to the whole history of the novel in the twentieth century. Examines the main strands of twentieth-century fiction, including post-war, post-imperial and multicultural fiction, the global novel, the digital novel and the post-realist novel. Offers students ideas about how to read the modern novel, how to enjoy its strange experiments, and how to assess its value, as well as suggesting ways to understand and appreciate the more difficult forms of modern fiction. Pays attention both to the practice of novel writing and to theoretical debates among novelists. Claims that the novel is as purposeful and relevant today as it was a hundred years ago. Serves as an excellent springboard for classroom discussions of the nature and purpose of modern fiction. Applying the proven success of modern process engineering economics to the food industry, Food Plant Economics considers the design and economic analysis of food preservation, food manufacturing, and food ingredients plants with regard to a number of representative food processes. Economic analysis of food plants requires the evaluation of quantitatively thoroughly revised edition that encompasses new material including sections dealing with extrusion cooking and the use of cereals for animal feed. The section on industrial uses for cereals has been expanded considerably. This book fills a need for a technological guide history that has expert undue an almost explosive increase in the last two decades. No other book available to food scientists provides detailed coverage of the ingredients, processes, products, and equipment of nearly every type of snack food made today. Since publication of the First Edition, many changes have occurred in the snack industry, making necessary a thorough revision of all chapters. The text, illustrations, and bibliographies have all been brought up-to-date. My goal has been to provide an accurate and reasonably detailed description of every major snack processing method and product current in the United States. If any reader believes I have omitted an important topic, I would be glad to learn of it, in the hope that there will be a Third Edition in which I can incorporate the suggested additions. One of the main purposes of this volume is to provide a source for answers to problems that the technologist encounters in the course of his or her daily work. Extensive bibliographies, in which the emphasis is on recent publications (extending into 1983), should permit the reader to resolve more complex or new questions. With these bibliographies as guides, the food technologist can delve as deeply as he or she wishes into specialized aspects of the subject, while at the same time the reader who is interested in the broad overall picture will not be distracted by excess detail. This book joins and integrates ceramics and ceramic-based materials in various sectors of technology. A major imperative is to extract scientific information on joining and integration response of real, as well as model, material systems currently in a developmental stage. This book envisions integration in its broadest sense as a fundamental enabling technology at multiple length scales that span the macro, millimeter, micrometer and nanometer ranges. Consequently, the book addresses integration issues in various diverse areas as space power and propulsion, thermoelectric power generation, solar energy, micro-electro-mechanical systems (MEMS), solid oxide fuel cells (SOFC), multi-chip modules, prosthetic devices, and implanted biosensors and stimulators. The engineering challenge of designing and manufacturing complex structural, functional, and smart components and devices for the above applications from smaller, geometrically simpler units requires innovative development of new integration technology and skillful adaptation of existing technology. The Companion combines a broad grounding in the essential texts and contexts of the modernist movement with the unique insights of scholars whose careers have been devoted to the study of modernism. An essential resource for students and teachers of modernist literature and culture. Broad in scope and comprehensive in coverage. Includes more than 60 contributions from some of the most distinguished modernist scholars on both sides of the Atlantic. Brings together entries on elements of modernist culture, contemporary intellectual and aesthetic movements, and all the genres of modernist writing and art. Features 25 essays on the signal texts of modernist literature, from James Joyce’s Ulysses to Zora Neale Hurston’s Their Eyes Were Watching God Pays close attention to both British and American modernist Food processing technologies are an essential link in the food chain. These technologies are many and varied, changing in popularity with changing consumption patterns and product popularity. Newer process technologies are also evolving to provide the added advantages. Conventional and Advanced Food Processing Technologies fuses the practical (application, machinery), theoretical (model, equation) and cutting-edge (recent trends), making it ideal for industrial, academic and reference use. It consists of two sections, one covering conventional or well-established existing processes and the other covering emerging or novel process technologies that are expected to be employed in the near future for the processing of foods in the commercial sector. All are examined in great detail, considering their current and future applications with added examples and the very latest data. Conventional and Advanced Food Processing Technologies is a comprehensive treatment of the current state of knowledge on food processing technology. In its extensive coverage, and the selection of reputed research scientists who have contributed to each topic, this book will be a definitive text in this field for students, food professionals and researchers. To assist school administrators and teachers to plan new programs. This book provides a general technical and mechanical background for the basic processing machinery now used for making snacks, baked goods and confectionery. It covers the basic principles, machine design, function, operation and output. The second of a seven-volume series, The Literature of the Agricultural Sciences, this book analyzes the trends in published literature of agricultural engineering during the past century with emphasis on the last forty years. It uses citation analysis and other bibliometric techniques to identify the most important journals, report series, and monographs for the developed countries as well as those in the Third World. Practical Baking covers the entire field of practical bakery foods production and pastry making, bringing students up to speed on the latest bakery developments, and emphasizing the production of international yeast-raised bakery products and new practices in speed-up production. An extensive revision of the 1985 first edition, this volume combines the biochemistry and functionality of all food components. It provides broad coverage and specific descriptions of selected, major foods, as well as such elements as biotechnology-engineered foods and food patents. While directed toward food technologists and nutritionists, the contents are also invaluable to biologists, engineers, and economists in agriculture, food production, and food processing. Updates the first edition by the addition of genetic engineering progress Contains previously unpublished information on food patents. Includes oriental and other ethnic foods, dietetic foods, and biotechnology...
generated foods. Features additional material on poultry and fish. Covering a period of about 25 years, during which time-frequency has undergone significant developments, this book is principally addressed to researchers and engineers interested in non-stationary signal analysis and processing. It is written by recognized experts in the field. This two-volume set features selected articles from the Fifth Edition of Wiley's prestigious Kirk-Othmer Encyclopedia of Chemical Technology. This compact reference features the same breadth and quality of coverage found in the original, but with a focus on topics of particular interest to food technologists, chemists, chemical and process engineers, consultants, and researchers and educators in food and agricultural businesses, alcohol and beverage industries, and related fields. This book surveys the functions and applications of additives used in baked foods at relatively low levels, details their reaction mechanisms and describes their technological effects, including how each additive helps to create high-quality baked products. Coverage includes oxidants, reductants and mix reducers, surfacants, emulsifiers and dough strengtheners, chemical leavenings, yeast, and gluten and gums. The author presents product applications and covers such important new areas as high fibre breads, enzymes in baking, the use of emulsifiers and vital wheat gluten manufacture. This Companion offers a state-of-the-art survey of the work of John Stuart Mill — one which covers the historical influences on Mill, his theoretical, moral and social philosophy, as well as his relation to contemporary movements. Its contributors include both senior scholars with established expertise in Mill's thought and new emerging interpreters. Each essay acts as a "go-to" resource for those seeking to understand an aspect of Mill's thought or to familiarise themselves with the contours of a debate within the scholarship. The Companion is a key reference on Mill's theory of liberty and utilitarianism, but also provides a valuable resource on lesser-known aspects of his work, including his epistemology, metaphysics, and philosophy of language. The volume is divided into six sections. Part I covers Mill's life, his immediate posthumous reputation, and his own telling of his life-story. Part II brings together an accessible and comprehensive summary of the various influences on Mill's thought. Part III offers an account of the foundations of Mill's philosophy and his thought on key philosophic topics. Parts IV and V tackle issues from Mill's moral and social philosophy. Part VI concludes with a treatment of the broader aspects of Mill's thought, tracing his relation to major movements in philosophy. Yeasts are the active agents responsible for three of our most important foods - bread, wine, and beer - and for the almost universally used mind/personality-altering drug, ethanol. Anthropologists have suggested that it was the production of ethanol that motivated primitive people to settle down and become farmers. The Earth is thought to be about 4.5 billion years old. Fossil microorganisms have been found in Earth rock 3.5 to 3.0 billion years old. Microbes have been on Earth for that length of time carrying out their principal task of recycling organic matter as they still do today. Yeasts have most likely been on Earth for at least 2 billion years before humans arrived, and they play a key role in the conversion of sugars to alcohol and carbon dioxide. Early humans had no concept of either microorganisms or fermentation, yet the earliest historical records indicate that by 6000 B.C. they knew how to make bread, beer, and wine. Earliest humans were foragers who collected and ate leaves, tubers, fruits, berries, nuts, and cereal seeds most of the day much as apes do today in the wild. Crushed fruits readily undergo natural fermentation by indigenous yeasts, and moist seeds germinate and develop amylases that produce fermentable sugars. Honey, the first con centrated sweet known to humans, also spontaneously ferments to alcohol if it is by chance diluted with rainwater. Thus, yeasts and other microbes have had a long history of 2 to 3. Introduction to rheology. Tube viscometry. Rotational viscometry. Extensional flow. Viscoelasticity. The intention of this book is to provide a guide for potential management and supervisors and for those who wish to understand the fundamental principles of biscuit manufacture. It does not set out to be a learned treatise. The purpose of the book is to simplify and explain processes and materials so that the 'mystique' is replaced by logic. Once the mystique is removed the biscuit maker is one step closer to anticipating and solving problems. In attempting to cover this subject within one concise volume, it is difficult to avoid oversimplification or generalisation, and apologies must be offered in advance where these occur. To wallow in the fine details of specialisation is to defeat the object of the book, and less would be achieved if the issues were confused. The reader's attention is drawn to the interpretation of formulae (recipes). Raw materials, equipment, methods, processes, and conditions vary considerably; the formulae are intended as blueprints from which, with a knowledge of the materials and aims of the processes, and by trial and error, a biscuit can be produced bearing some semblance to the original. All formulae should be interpreted in conjunction with the 'Guide to using formulae' at the beginning of Chapter 12. As the biscuit industry advances towards complete automation, plant and equipment become more advanced and sophisticated. Introduction; Cereal crops; Physical properties and structure; composition; classification and standards; Storage; Grain quality; Wheat-processing, milling; wheat flour composition in baked making; Dough and bread structure the art and science of bread making; Bread around the world; Sensory attributes and bread making; bread in health and disease; Soft wheat products; Rice; Corn; Barley; Oats; sorghums and millets, and rye; Extrusion products; Industrial uses of cereals. This edition is a practical, how-to book, that discusses ingredients, mixtures, methods, equipment and their functions, machinery and managing technical functions. It examines the ingredients used in cookies and crackers and how they function in doughs, batters, and finished products. It also discusses typical formulae and how variations affect finished product qualities. Other areas covered include product development, quality assurance and the legal responsibilities of technical managers. The book Deals With Foods From The Point Of View Of Cultural Practices In India. Each Food Is Discussed From The Point Of Its Production, Processing And Utilization In The Indian Context. Foods Of Special Importance In The Indian Diet Like Pulses, Spices And Nuts Are Considered. At Length, The book gives A Comprehensive Account Of Foods And Their Products With Regard To Production, Composition, Nutritive Value, Uses And Preservation, Indigenous Food Preparations Based On Fermented Rice And Pulse, Milk And Indian Confectionery Have Been Discussed. Various Laws Issued By The Government To Control Food Quality Are Highlighted. Food Is More Than Nutrients. In Addition To Nursing Our Body And Promoting Good Health, Foods Have An Affect On Our Mind, Emotion And Spiritual Life. There Is Of Late, A Great Awareness In The Relationship Of Food And Spiritual Life. Hence, a New Chapter On Nutrition, Health And Food Consciousness Is Included In The Second Edition. 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. The author's aim in writing this book is to integrate currently available knowledge concerning the basic scientific and technological aspects of breadmaking processes with the diverse breadmaking methods used to manufacture bread in Europe and on the North American continent today. To date, the main technological advances have been in process mechanization, starting with oven development, then dough processing or make-up equipment, followed by continuous and batch mixing techniques from the 1950s to the present time. On the engineering side, universal emphasis is now being placed on the application of high technology, in the form of microprocessors, computer-controlled equipment and robotization, the long-term objective being computer integrated manufacture (CIM) with full automation within the large chain bakery groups in...
the capitalist countries and the state-run collectives of Eastern Europe. The application of these key technologies with biotechnology, as yet only applied to a limited degree in food manufacture, coupled with advances in biochemical and rheological understanding of dough as a biomass for breadmaking, should provide us with more expertise and ability to control the processes with greater efficiency. The application of fermentable substrates and industrial enzymes under strict kinetic control should contribute to improving the flavour characteristics of bread. Current trends towards improving the nutritional contribution of bread to the daily diet are improving the competitive edge of bread as a basic food in the market-place. While cereals remain the world's largest food yield - with more than 2.3 billion metric tons produced annually - consumer demands are on the rise for healthier cereal products with greater nutrition. Cereal Grains: Properties, Processing, and Nutritional Attributes provides a complete exploration of the scientific principles related to domesticatio

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