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What is Nanotechnology?; 3.2 Food Formulations; 3.3 Food Packaging; 3.3.1 Enhanced Barrier Properties; 3.3.2 Active Packaging; 3.3.3 Intelligent Packaging

3.4 Regulation Issues and Consumer Perception

Acknowledgements; References; 4 Frozen Food and Technology; 4.1 Introduction; 4.2 Treatments: Pre-freezing; 4.2.1 Fruits and Vegetables; 4.2.2 Fish Products; 4.2.3 Meat Products; 4.3 Freezing Process; 4.4 Freezing Methods and Equipment; 4.4.1 Freezing by Contact with Cold Air; 4.4.2 Freezing by Contact with Cold Liquid; 4.4.3 Freezing by Contact with Cold Surfaces; 4.4.4 Cryogenic Freezing; 4.4.5 Combination of Freezing Methods; 4.4.6 Innovations in Freezing Processes; 4.4.7 Food Products and Freezing Methods

4.5 Effect of Freezing and Frozen Storage on Food Properties

4.5.1 Physical Changes; 4.5.2 Chemical Changes; 4.5.3 Microbiological Aspects; 4.6 Final Remarks; References; 5 Chemical and Functional Properties of Food Components; 5.1 Introduction; 5.2 Functional and Chemical Properties of Food Components; 5.2.1 Functional Foods: Historical Perspective and Definitions; 5.2.2 Legislation on Functional Food Claims; 5.2.3 Classification of Functional Foods; 5.2.4 Functional Properties of Food Components; 5.3 Nutritional Value and Sensory Properties of Food; 5.3.1 Nutritional Value of Food

5.3.2 Sensory Properties of Food

5.4 Postharvest Storage and Processing; 5.4.1 Bioactive Compounds Postharvest; 5.5 Conclusion; Acknowledgements; References; 6 Food: Production, Properties and Quality; 6.1 Introduction; 6.2 Food Production; 6.3 Factors Affecting Production and Improvement of Food; 6.3.1 Soil and Climate; 6.3.2 Population and Income Per Capita; 6.3.3 Technology; 6.3.4 Plant Source Foods; 6.3.5 Animal Source Foods; 6.4 Food Properties; 6.5 Food Quality; References

7 Regulatory Aspects of Food Ingredients in the United States: Focus on the Safety of Enzyme Preparations Used in Food

Sommario/riassunto

This book comprehensively reviews research on new developments in all areas of food chemistry/science and technology. It covers topics such as food safety objectives, risk assessment, quality assurance and control, good manufacturing practices, food process systems design and control and rapid methods of analysis and detection, as well as sensor technology, environmental control and safety. The book focuses on food chemistry and examines chemical and mechanical modifications to generate novel properties, functions, and applications.
