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Lipids

2.7 Ingredients obtained from marine algae and bacteriaReferences; 3 The technology of reduced additive breadmaking; 3.1 Introduction; 3.2 Why are additives used?; 3.3 Key steps in breadmaking; 3.3.1 Inclusion of air; 3.3.2 Expansion of bubbles; 3.3.3 Retention of gases; 3.4 Compensating for raw material variation; 3.5 Improvement of dough-handling characteristics; 3.6 Extending the shelf-life of bread; 3.6.1 Organoleptic changes; 3.6.2 Microbial changes; 3.7 Conclusions; References; 4 Novel food packaging; 4.1 Introduction; 4.2 Scope for avoidance of additives
4.2.1 Food degradation processes4.2.2 Characteristic needs of foods; 4.3 Properties of packaging materials; 4.4 Packaging processes; 4.4.1 Gas atmosphere treatments; 4.4.2 Thermal treatments; 4.5 Active packaging technologies; 4.5.1 Oxygen scavengers; 4.5.2 Carbon dioxide control; 4.5.3 Water vapour control; 4.5.4 Ethylene scavenging; 4.5.5 Antimicrobial food packaging; 4.5.6 Antioxidant-releasing packaging; 4.6 Future opportunities; References; 5 Antimicrobial preservative-reduced foods; 5.1 Introduction; 5.2 Control of microorganisms; 5.2.1 Antimicrobial preservatives in foods 5.2.2 Hurdle concept5.2.3 Formulations; 5.2.4 Processing environment; 5.2.5 Processing methods; 5.2.6 Packaging methods; 5.3 Alternatives to antimicrobial preservatives; 5.3.1 Nitrite alternatives; 5.3.2 Sulphite alternatives; 5.3.3 Low sodium products; 5.4 Alternative natural food preservation systems; 5.4.1 Natural antimicrobials found in animals and animal products; 5.4.2 Natural antimicrobials from microorganisms; 5.4.3 Natural antimicrobials from plants; 5.5 Combinations of existing preservative mechanisms and natural preservatives; 5.6 Conclusions; References; Further reading
6 New plant-derived ingredients

Sommario/riassunto

Since some food additives have been shown to be harmful to certain individuals, a common perception now is that all food additives are potentially dangerous. This had led to a large market for products making minimal use of additives. Tight regulatory control and labelling requirements provide further impetus for the development of these products. This book provides an authoritative and comprehensive review of the industrially important advances in the technology that allow food products to be manufactured with fewer of the additives that have been traditionally used. Also, many new natural an
