1. Record Nr. UNINA9910824309903321

Titolo	Edible oil processing / / edited by Wolf Hamm, Richard Hamilton and Gijs Calliauw
Pubbl/distr/stampa	Chichester, West Sussex ; ; Hoboken, NJ, : Wiley-Blackwell, 2013
ISBN	1-5231-0981-5 1-118-54178-2 1-118-53520-0 1-118-53519-7
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (448 p.)
Altri autori (Persone)	CalliauwGijs HamiltonR. J (Richard John) HammWolf
Disciplina	664/.3
Soggetti	Oils and fats, Edible Oils and fats
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover; Title Page; Copyright; List of Contributors; List of Abbreviations; Introduction; Chapter 1: Composition and Properties of Edible Oils; 1.1 Introduction; 1.2 Components of natural fats; 1.3 Fatty acid composition; 1.4 Physical properties; 1.5 Chemical properties; 1.6 Effect of processing on food oil components; References; Chapter 2: Bulk Movement of Edible Oils; 2.1 Oil production and exports; 2.2 Cargo damage; 2.3 Quality of oils shipped; 2.4 Codex Alimentarius; 2.5 Oil shipments: systems and regulations; 2.6 Shore storage; 2.7 Movement and storage costs; 2.8 Refinery location Acknowledgement References; Chapter 3: Production of Oils; 3.1 Introduction; 3.2 Seed handling and storage; 3.3 Preparation of oilseeds; 3.4 Preparation of soybean; 3.5 Preparation and pressing of rapeseed (canola); 3.6 Preparation and pressing of sunflower seed; 3.7 Full pressing; 3.8 Oil from other seeds; 3.9 Olive oil production; 3.10 Palm oil production; Chapter 4: Solvent Extraction; 4.1 Introduction; 4.2 Solvent extractor; 4.3 Meal desolventiser toaster; 4.4 Meal dryer cooler; 4.5 Miscella distillation system; 4.6 Solvent recovery system; 4.7 Heat

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6.3 Interesterification 6.4 Dry fractionation; References; Chapter 7: Enzyme Processing; 7.1 Introduction; 7.2 Enzyme applications before oil refining; 7.3 Applications within edible oil modification; 7.4 Improving processing sustainability through enzyme usage; References; Chapter 8: Application of Edible Oils; 8.1 Introduction; 8.2 Physical chemistry of triacylglycerides; 8.3 Fat crystal networks; 8.4 Design of functional TAG compositions; 8.5 Application in fat-continuous emulsions (spreads); 8.6 Application in water-continuous emulsions; 8.7 Application in other fat-continuous products

8.8 Conclusion References; Chapter 9: Quality and Food Safety Assurance and Control; 9.1 Introduction; 9.2 Analytical methods for measuring oil and fat composition; 9.3 Quality analyses; 9.4 Supply chain contaminants; 9.5 Quality and food safety assurance; References; Chapter 10: Oil Processing Design Basics; 10.1 Introduction; 10.2 Refining and modification process routes for most common oil types; 10.3 Oil processing block diagram design; 10.4 Effective equipment capacity; 10.5 Tank park design rules; 10.6 Design estimates for utilities consumptions and effluent production

10.7 Occupational safety by design

Sommario/riassunto

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 con