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recovery; References

Chapter 5: Edible Oil Refining: Current and Future Technologies 5.1 Introduction; 5.2 Next-generation chemical refining with nanoneutralisation; 5.3 Enzymatic degumming: a missing link in the physical refining of soft oils?; 5.4 Bleaching: from single-stage colour removal to multistage adsorptive purification; 5.5 Deodorisation: much more than just a process for the removal of off-flavours; 5.6 Short-path distillation and supercritical processing: refining technologies for the future?; References; Chapter 6: Oil Modification Processes; 6.1 Introduction; 6.2 Hydrogenation  
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

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## 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

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